



# UAT

2022-2024 Academic Catalog

## GOVERNANCE

An Arizona corporation established in 1983, University of Advancing Technology (UAT) is a registered tradename of University of Advancing Computer Technology, Inc.

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## ACCREDITATIONS, AUTHORIZATIONS AND APPROVALS

UAT is accredited by the Higher Learning Commission ([hlcommission.org](http://hlcommission.org)), an institutional accreditation agency recognized by the U.S. Department of Education.

In addition, UAT holds the following accreditations, authorizations, approvals and memberships:

- > Council for Higher Education Accreditation (CHEA), Accreditation Member
- > Licensed by the Arizona State Board for Private Postsecondary Education
- > Certified by the US Department of Education
- > Designated Center of Academic Excellence by the National Centers of Information Assurance Education (CAE/IAE) sponsored by the U.S. National Security Agency and the Homeland Security Department
- > Network Security Curriculum has been certified through the NSA/DHS National Information Assurance Education Training Program in Information Assurance (IA)/Cyber Defense (CD)
- > Programs approved for the training of veterans
- > Approved by the Student and Exchange Visitor Information Systems (SEVIS) for training of foreign students
- > Alpha Beta Kappa Honor Society
- > American Association of Collegiate Registrars and Admissions Officers (AACRAO), Member
- > Arizona Veterans Association, Member
- > Western Association of Student Employment Administrators, Member
- > Better Business Bureau, Member
- > NAFSA: Association of International Educators, Member
- > Cumulus, the International Association of Universities and Colleges of Art, Design and Media, Member

To view an updated list, go to [uat.edu/accreditation](http://uat.edu/accreditation). The major certificates of accreditation or membership are on display in the halls of the school. Those which are not on display may be viewed by directing a written request to the appropriate school official.

## STATE AUTHORIZATION

University of Advancing Technology (UAT) pursues to offer online classes (distance education) in every state while abiding to regulatory and governing standards. UAT works through the State Authorization Reciprocity Agreement (SARA) process to confirm that when authorization or licensure is necessary, proper approvals are secured.

The state of Arizona is a member of SARA, and UAT is an approved SARA institution. This means UAT has reciprocity approval for distance education with other SARA approved states. This membership makes it possible for students to take online courses in other states. Students can rest assured their college meets SARA requirements for distance education.

Distance Education students may submit non-instructional complaints to the Arizona SARA Council after the institution's internal and the Arizona State Board for Private Postsecondary Education's Grievance Processes have been completed. Please refer to the 'General Grievances' for full details on how to submit complaints. The AZ SARA complaint process can be found here: <https://azsara.arizona.edu/content/complaint-process>.

If for any reason you feel that you need to submit a complaint, you may do so here: <https://azsara.arizona.edu/content/complaint-process>. Please keep in mind that the Council does not review instructional complaints or grievances.

SARA is overseen by the National Council (NC-SARA) and administered by four regional education compacts. Arizona's regional compact is the Western Interstate Commission of Higher Education (WICHE).

For more information about the NC-SARA or approved Arizona institutions, please visit <http://www.nc-sara.org/>.

The State of California established the Student Tuition Recovery Fund (STRF) to relieve or mitigate economic loss suffered by a student in an educational program at a qualifying institution, who is or was a California resident while enrolled, or was enrolled in a residency program, if the student enrolled in the institution, prepaid tuition, and suffered an economic loss. Unless relieved of the obligation to do so, you must pay the state-imposed assessment for the STRF, or it must be paid on your behalf, if you are a student in an educational program, who is a California resident, or are enrolled in a residency program, and prepay all or part of your tuition.

You are not eligible for protection from the STRF and you are not required to pay the STRF assessment, if you are not a California resident, or are not enrolled in a residency program.

It is important that you keep copies of your enrollment agreement, financial aid documents, receipts, or any other information that documents the amount paid to the school. Questions regarding the STRF may be directed to the Bureau for Private Postsecondary Education, 1747 North Market Blvd., Suite 225, Sacramento, CA 95834, (916) 574-8900 or (888) 370-7589.

To be eligible for STRF, you must be a California resident or are enrolled in a residency program, prepaid tuition, paid or deemed to have paid the STRF assessment, and suffered an economic loss as a result of any of the following:

1. The institution, a location of the institution, or an educational program offered by the institution was closed or discontinued, and you did not choose to participate in a teach-out plan approved by the Bureau or did not complete a chosen teach-out plan approved by the Bureau.
2. You were enrolled at an institution or a location of the institution within the 120 day period before the closure of the institution or location of the institution, or were enrolled in an educational program within the 120 day period before the program was discontinued.
3. You were enrolled at an institution or a location of the institution more than 120 days before the closure of the institution or location of the institution, in an educational program offered by the institution as to which the Bureau determined there was a significant decline in the quality or value of the program more than 120 days before closure.
4. The institution has been ordered to pay a refund by the Bureau but has failed to do so.
5. The institution has failed to pay or reimburse loan proceeds under a federal student loan program as required by law, or has failed to pay or reimburse proceeds received by the institution in excess of tuition and other costs.
6. You have been awarded restitution, a refund, or other monetary award by an arbitrator or court, based on a violation of this chapter by an institution or representative of an institution, but have been unable to collect the award from the institution.
7. You sought legal counsel that resulted in the cancellation of one or more of your student loans and have an invoice for services rendered and evidence of the cancellation of the student loan or loans.

To qualify for STRF reimbursement, the application must be received within four (4) years from the date of the action or event that made the student eligible for recovery from STRF.

A student whose loan is revived by a loan holder or debt collector after a period of noncollection may, at any time, file a written application for recovery from STRF for the debt that would have otherwise been eligible for recovery. If it has been more than four (4) years since the action or event that made the student eligible, the student must have filed a written application for recovery within the original four (4) year period, unless the period has been extended by another act of law.

However, no claim can be paid to any student without a social security number or a taxpayer identification number.

## PRE-DISPUTE ARBITRATION AND CLASS ACTION WAIVER DISCLOSURE

University of Advancing Technology (UAT) seeks to resolve disputes or claims between any student and the school in a manner that addresses an individual student's complaint in an efficient, cost-effective, and quicker manner than traditional litigation. A student who enrolls at University of Advancing Technology (UAT) agrees, as a condition of his or her enrollment, to resolve any dispute through mandatory arbitration that shall not be adjudicated as a class action or a consolidated class arbitration proceeding. However, the school cannot require a student loan borrower to participate in arbitration or any internal dispute resolution process offered by the institution prior to filing a borrower defense to repayment application with the U.S. Department of Education pursuant to 34 CFR 685.206(e); the school cannot, in any way, require students to limit, relinquish, or waive their ability to pursue filing a borrower defense claim, pursuant to 34 CFR 685.206(e) at any time; and any arbitration, required by a pre-dispute arbitration agreement, tolls the limitations period for filing a borrower defense to repayment application pursuant to 34 CFR 685.206(e)(6)(ii).

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# UAT OVERVIEW

## MISSION

To educate students in advancing technology who innovate for our future.

## VISION

UAT leads higher education by reimagining the future of learning, intellectual property and talent cultivation to accelerate Arizona and national tech-entrepreneurship.

## INSTITUTIONAL VALUES

**Fast**—We work really fast all the time, but we do it in a calm, mindful, purposeful and centered way.

**Fun**—We are not afraid to have a ridiculous amount of fun at work.

**Friendly**—We are a face-to-face working environment. We are friendly and we want to work alongside other friendly people. We should build relationships with each other because humans matter.

**Smart**—We are a family of wicked smart people that still have common sense.

**Honor**—We do honorable work every day and we believe in what we do. We are brave enough to do the right thing, even if it is hard.

**Ownership**—We own who we are and we own what we do. We value those who get things done, take ownership for their work, are proud of it and are always seeking to learn and do more.

**Leadership**—We all strive to be leaders in our own regard and we want to surround ourselves with other leaders. We are disruptors and we lead the way for our community and our students.

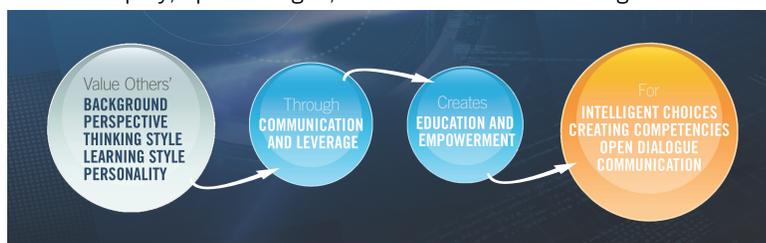
**Growth**—We value people who play a bigger game day after day; this involves practice, ownership and learning. We will always do a better job tomorrow than we did today.

**Team Sport**—We play a big game as coworkers and family. We trust each other and operate above our own egos.

**Pride**—We are proud of who we are and the unique things we do. We are proud of each other and the University. We are our authentic selves and are proud of other's diversity.

## DIVERSITY

At UAT, we believe modern technology is the amalgam of innovations from worldwide contributors. This stimulates the University to invest significant energy in teaching an understanding of others and an appreciation of the benefits and leverage that exist within our differences. These differences include those of background, perspective, thinking style, learning style and personality. Further, the University believes that diversity in technology education requires educating and empowering students to serve the common good with success and distinction in an increasingly global environment while understanding the profound impacts of the technologies they may develop. To encourage this appreciation, UAT provides a diverse set of learning experiences and campus activities including curricular and extracurricular interactions that foster an understanding and appreciation of the diversity of individuals and teams within a broad context. All endeavors are focused on this global context, creating competencies in inquiry, open dialogue, communication and intelligent choice-making.



## ABOUT UAT

UAT is the technophile's college experience – a community uniquely suited to provide students passionate about technology an ideal place to live and grow. UAT is a private and family-owned University that merges the values of the traditional academy with the modern technology campus, a fusion that enhances our ability to fulfil the mission of educating students in the fields of advancing technology who innovate for our future.

Learning at UAT extends from our students, staff and faculty to the institution itself. UAT's dedication to learning is reflected in our efforts to create and develop new ways of learning that focus on the personal mission and vision of every member of the UAT community.

UAT strives to foster knowledge creation and achieve academic excellence. We are at the forefront of developing academic programs that tend to be unique among academia or emerge years ahead of other schools, such as Network Security and Robotics and Embedded Systems, as well as our established Game Development majors that merged artistic and programming aspects long before other colleges chose that focus for themselves.

At the heart of UAT's curricula is a technology-infused campus in Tempe, Arizona. The fusion of the traditional academy with the technology-focused curricula creates a distinct, non-exclusionary university in which students learn to value their own uniqueness and the power of technology in education.

## OFFERINGS

UAT delivers collegiate education and research in a multitude of technology areas. UAT offers two-year, four-year and graduate degree programs in a year-round environment in arts and sciences. These programs result in associate's, bachelor's or master's degrees. UAT offers the following degree programs:

### **Bachelor or Associate of Science degrees are offered in the following disciplines:**

- > Advancing Computer Science
- > Artificial Intelligence
- > Business Technology
- > Data Science
- > Digital Maker and Fabrication
- > Digital Marketing
- > Game Programming
- > Human Computer Interaction
- > Network Engineering
- > Network Security
- > Robotics and Embedded Systems
- > Technology Forensics
- > Technology Studies

### **Bachelor or Associate of Arts degrees are offered in the following disciplines:**

- > Advertising Art
- > Digital Video
- > Game Art and Animation
- > Game Design
- > Virtual Reality

### **Master of Science degrees are offered in the following disciplines:**

- > Cyber Security
- > Game Production and Management
- > Software Engineering
- > Technology Innovation
- > Technology Leadership

All graduate programs are offered in-person, online or through hybrid modalities. The flexible schedules and options make it easy to graduate in a timely manner. As an online student, you'll still have the convenience to interact with professors and other students where it's best for you. Grad students can earn their degree, with certificates, while working or keeping other commitments.

A program is defined as a licensed and accredited degree program. Programs are designed to provide a balance of computer technologies, conceptual knowledge and general education. The University utilizes feedback from industry, employers, graduates, students and faculty when designing curriculum to ensure that the programs reflect industry advancements, needs and requirements in a competitive world economy.

# ACADEMICS

## ACADEMICS

Academics at UAT focus on creating an immersive technology education experience that integrates the classroom experience with asynchronous and online learning elements.

As a small private college that focuses solely on advancing and emerging technology disciplines, UAT programs tend to be unique among academia or emerge years ahead of other schools. The emerging technologies that resonate with UAT's identity are identified using a research process that incorporates global perspectives on technologies that will contribute to the development of human society. The study and furtherance of those technologies are developed into undergraduate and graduate programs through a balanced process incorporating insights from many sources. The resulting curriculum is delivered using methodologies specifically chosen for their effectiveness in educating the current college student, i.e., the digital native.

The ultimate goal of the academic programs is to support the fulfillment of UAT's mission to educate students in advancing technology who innovate for our future. In pursuit of fulfilling our mission, each of the above components can be expounded upon as follows:

All programs at UAT are identified through a process that examines emerging technologies in their infancy and gauges their potential to contribute and change the way we live and interact. Technologies that align with UAT's identity and have the potential to contribute long-term to society are chosen for research and possible implementation within the University's academic environment. Those technologies that are determined to be viable for development into meaningful, rich academic degree programs are then readied for implementation. During this development phase, members of UAT's academic administration staff seek to recruit instructors and subject matter experts who demonstrate appropriate expertise in the emerging technology area to develop such programs at UAT. Programs are then developed by these faculty members and curriculum specialists using a balanced approach to leveraging input from industry, alumni, students, employers and the broader community.

## COMPLETION RATE

The completion rate measures the total number of students who began their studies as full-time, first time degree- or certificate-seeking students and completed their degree within 150% of "normal time" for completing the program in which they enrolled. The UAT reported completion rate can be found at the following website:

<https://nces.ed.gov/collegenavigator/?q=university+of+advancing+technology&s=all&id=363934#retgrad>

## CREDIT AWARDS VIA SYNCHRONIC LEARNING

**Delivery** – UAT's environment, its instructors, technology and resources are tailored to each student's individual learning style. UAT's diverse delivery model promotes optimal lifelong learning habits and enhances student learning by having every student become actively involved in the learning process. Within UAT's delivery, students experience direct learning from their professors along with learning and research using digital tools. Production studios allow student teams to engage in peer learning and teaching while building projects. Professors design learning moments using these types of experiences with a recognition that learning occurs best when students are engaged in ways that match their development within topics and their learning style preferences. This is why UAT courses include a balance of learning approaches that fall within seven major categories:

**Lecture** – Instructor-facilitated presentation of new material uses technology tools and high levels of student interaction techniques to create active learning (15 hours = 1 credit).

**Tutorial Learning** - The step-by-step presentation of new material, either lead by the instructor or with a student's self-directed learning using interactive instructional tools. The goal is to reinforce the cumulative success of all participants in a hands-on skill-building experience (15 hours = 1 credit).

**Team Learning** - Modeling lifelong work skills and team ethics that parallel what is expected in the technology workplace, student teams create technologies, solve problems and complete projects by putting previously covered material into practice (30 hours = 1 credit).

**Student Standup** - Culminating in presentation to peers, student standup promotes mastery of program topics by challenging students to prepare learning activities and delivering presentations and conducting project post-mortems (30 hours = 1 credit).

**Individual Discovery** - Under self-direction, students research, organize and apply information. The earning and practice that occur during individual discovery become the steps leading toward synthesis and innovation (30 hours = 1 credit).

**Production** - Leading toward the creation of market ready, professional applications of technology, students will take on the roles and procedures of teams working in production pipelines that mirror the workplace (45 hours = 1 credit).

**Internship** - Time spent in the workplace practicing applying the knowledge and skills developed in other classes (45 hours = 1 credit).

## HONORS PROGRAM

Honors at UAT provides a path for students to pursue and achieve at a higher academic level. Students undertaking honors studies at UAT will:

- > Take core courses at more rigorous levels that include a focus on higher academic performance, technology completion and the creation of market-ready works
- > Participate in sponsored extracurricular enrichment and leadership activities
- > Have the opportunity to reside in an honors community
- > Take part in honors activities
- > Be mentored by an honors chairperson
- > Be recognized during commencement

Prospective and current UAT students are invited to apply for the UAT honors program. Application forms for the UAT honors program can be found at [www.uat.edu/honors-program](http://www.uat.edu/honors-program).

Upon acceptance, students will be notified they are eligible for honors studies and room assignments within the honors areas of Founders Hall. Honors students will have the opportunity to receive guidance and mentoring by an honors chairperson. The honors chairperson will also facilitate leadership and enrichment events for UAT honors students.

In order to graduate with honors, UAT students will be required to:

- > Complete 21 credits of honors coursework
- > Earn a cumulative grade point average of at least 3.2

Honors students enroll into advanced courses as a part of their studies. Honors courses replace their standard counterparts in the program of study. In order to graduate, students must earn a grade of 'C' or higher in each of their honors courses. Honors courses will be offered each semester with registration being reserved only for honors students. Typical honors course options can include:

- > ENG101H
- > ENG102H
- > COM226H
- > BUS200H
- > Upper division honors humanities and social science topics
- > SIP311, SIP405, SIP408, SIP409, SIP410, SIP411 courses have honors expectations

In order to remain within honors, students are expected to maintain strong academic performance and be models of engagement, leadership and models for the UAT community.

# UNDERGRADUATE DEGREE PROGRAMS

## PROGRAM OF STUDY

A program of study is the compilation of courses, credit hours and grades that make up a student's educational degree at the University. A program of study includes those courses a student needs to take to complete their degree requirements, and courses currently in progress as well as courses already completed by the student. Students enrolled in any of UAT's Undergraduate degree programs attend a full-time program. All undergraduate programs incorporate General Education, University Core and Major-Specific Requirements in the program of study.

## UNIVERSITY CORE AND GENERAL EDUCATION

### UNIVERSITY CORE AND GENERAL EDUCATION OBJECTIVES—UNDERGRADUATE DEGREE

1. Student as Globally Minded Individual: Develops perspective on community and global matters, historical events, social conditions and related developments through knowledge gathering and critical inquiry; makes connections between disparate ideas, concepts and events.
2. Student as Problem-Solver: Applies thinking strategies (including critical, systems, creative, lateral and parallel) to effectively identify problems and articulate potential solutions; tests and enacts solutions based in scientific or industry-standard principles and methods where appropriate.
3. Student as Innovation Leader: Synthesizes and applies practical knowledge to determine community needs or desires and then creates.
4. Student as Communicator: Develops professional, articulate voice in oral and written communication; displays professionalism in presentation; and articulates concepts and perspectives.

### UNIVERSITY CORE

The University's Core curriculum addresses the question—*what do all students of technology need to know?* The Core prepares students to become part of, and be influential within, a globalized, technocentric world.

Classes within the Core curriculum complement all our majors and enable fulfillment of the University's mission to educate students to become innovators. It is essential to the UAT student experience that the challenges they will face in the global community are easily comprehended with regard not only to specific industries and professions, but also to processes of continuous and often exponential change. To become thinking innovators, students must be able to comprehend how change occurs and why. Regardless of their selected degree, all students within the University are required to complete the Core curriculum to earn their degree from the University.

#### University Core Courses—Bachelor's Degree

BUS200 Entrepreneurship to Market  
 COM226 Communication in Technology  
 SIP311 Student Innovation Project I  
 SIP405 Student Innovation Project II: On-Campus  
 SIP408 Student Innovation Project II: Online  
 SIP409 Student Innovation Project III: Online  
 SIP410 Boards Presentation: On-Campus  
 SIP411 Boards Presentation: Online  
 TCH310 Technology, Ethics and Society

#### **AND at least 3 credits in an internship:**

INT350 Internship  
 INT400 Internship

#### **AND at least 6 credits in production/studio courses**

PDS300 Production Studio I  
 PDS400 Production Studio II  
 PDS450 Production Studio III

> Students can take up to 12 credits of Production Studio I and II.

#### University Core Courses—Associate's Degree

BUS200 Entrepreneurship to Market  
 SIP311 Student Innovation Project I

The following courses are not required for a student's program of study, but they are highly recommended to students in all programs of study because they offer very useful instruction for students in any advancing technology field:

|        |                                  |
|--------|----------------------------------|
| ART103 | Digital Asset Creation           |
| CIS275 | Introduction to AI and Analytics |
| CSC203 | Java Programming I               |
| MAT220 | Statistics                       |
| MGT320 | Strategic Accounting             |
| NTS201 | Security Essentials              |

## **GENERAL EDUCATION**

UAT's general education offers students transferable life skills that complement technical skills learned in the majors. Students receive invaluable education in the humanities, mathematics, science, languages and other topics that build a foundation for discourse and expression that enriches their experience beyond the academic forum. This approach meets widespread expectations of the undergraduate learning experience that honors the motivation for higher education: betterment of self and the world around us.

General education brings into clarity the spectrum of human expression, modes of thought and perspectives that enable all students to make profound connections between their technical skills and human development. In doing so, it complements the University's technology-intensive environment by making students aware of how the broad spectrum of human experience and knowledge integrates with their technology discipline. Regardless of their selected degree, all students within the University are required to complete the general education curriculum to earn their degree from the University.

### **General Education Requirements— Bachelor of Arts Degree**

Minimum 36 total general education credit hours, including:

- > TCH115 Thinking Strategies
- > Humanities and Social Sciences—Minimum 18 credit hours, minimum of 6 upper division credits, including:
  - > ENG101 Composition I
  - > ENG102 Composition II
  - > SS320 Contemporary Global Issues
- > Mathematics and Science—Minimum 9 credit hours

### **General Education Requirements— Bachelor of Science Degree**

Minimum 36 total general education credit hours, including:

- > TCH115 Thinking Strategies
- > Humanities and Social Sciences—Minimum 12 credit hours, minimum of 6 upper division credits, including:
  - > ENG101 Composition I
  - > ENG102 Composition II
  - > SS320 Contemporary Global Issues
- > Mathematics and Science—Minimum 18 credit hours, minimum of 3 upper division credits

### **General Education Requirements— Associate of Arts Degree**

Minimum 24 general education credit hours, including:

- > TCH115 Thinking Strategies
- > Humanities and Social Sciences—Minimum 9 credit hours including:
  - > ENG101 Composition I
  - > ENG102 Composition II
- > Mathematics and Science—Minimum 6 credit hours

### **General Education Requirements— Associate of Science Degree**

Minimum 24 general education credit hours, including:

- > TCH115 Thinking Strategies
- > Humanities and Social Sciences—Minimum 9 credit hours including:
  - > ENG101 Composition I
  - > ENG102 Composition II
- > Mathematics and Science—Minimum 9 credit hours

## GENERAL EDUCATION COURSES

### Mathematics and Science

|        |   |
|--------|---|
| AST101 | The Night Sky                             |
| AST301 | The Solar System                          |
| AST302 | Stars, Galaxies and Cosmology             |
| MAT174 | College Algebra                           |
| MAT179 | Pre-Calculus                              |
| MAT210 | Business Mathematics                      |
| MAT220 | Statistics                                |
| MAT250 | Calculus I                                |
| MAT251 | Calculus II                               |
| MAT342 | Linear Algebra                            |
| MAT388 | Special Topics in Mathematics             |
| MAT415 | Selected Topics in Mathematics            |
| PHY101 | Physics                                   |
| PHY125 | Introduction to Electricity and Magnetism |
| SCI150 | Introduction to Electronics               |
| SCI188 | Introductory Topics in Science            |
| SCI330 | Green Technologies                        |
| SCI340 | Natural Disasters                         |
| SCI345 | Sustainability in Practice                |
| SCI350 | Environmental Perspectives                |
| SCI360 | Conservation and Zoos                     |
| SCI365 | Animal Diversity                          |
| SCI388 | Special Topics in Science                 |
| SCI415 | Selected Topics in Science                |

### Humanities and Social Sciences

|        |   |
|--------|---|
| ART231 | Intermediate Drawing  |
| ENG101 | Composition I   |
| ENG102 | Composition II  |
| ENG215 | Topics in Creative Writing  |
| ENG301 | Technical Writing   |
| ENG305 | Mythology, Fable and Fairy Tale   |
| ENG310 | Science Fiction as Literature   |
| ENG330 | Crime Literature  |
| ENG340 | Advanced Creative Writing   |
| ENG345 | Gothic Literature   |
| ENG350 | Fantasy Literature  |
| ENG412 | The Graphic Novel   |
| ENG415 | Selected Topics in Literature   |
| HIS220 | American History  |
| HIS230 | Survey of American History from Colonial Era to The Civil War                 |
| HIS240 | Survey of American History from The Civil War to the 20 <sup>th</sup> Century |
| HIS300 | The World Wars: 1914-1945   |
| HIS305 | 20 <sup>th</sup> - 21 <sup>st</sup> Century Innovation                        |
| HIS315 | Aerospace in America  |
| HIS320 | Classical World   |
| HIS330 | The Revolutionary Era   |
| HIS331 | The Vietnam Era   |
| HIS340 | Cold War Era  |
| HIS350 | Civil War and Reconstruction  |
| HIS355 | History of Broadcasting   |
| HIS360 | The Twilight Zone and Postwar America   |
| HIS415 | Selected Topics in History  |

|        |                                   |
|--------|-----------------------------------|
| HUM150 | Introductory Topics in Humanities |
| HUM160 | Art of the Comic Book             |
| HUM305 | Countercultures                   |
| HUM310 | Contemporary Themes in Humanities |
| HUM320 | The American Dream                |
| HUM365 | Dystopian Worlds                  |
| HUM388 | Special Topics in Humanities      |
| HUM415 | Selected Topics in Humanities     |
| JPN108 | Introduction to Japanese          |
| JPN208 | Intermediate Japanese             |
| LAW370 | Legal Issues in Technology        |
| PSY101 | Introduction to Psychology        |
| PSY300 | Living Your Best Life             |
| SPA101 | Introduction to Spanish           |
| SPA201 | Intermediate Spanish              |
| SS310  | East Asian Cultures               |
| SS320  | Contemporary Global Issues        |
| SS388  | Special Topics in Social Science  |
| SS415  | Selected Topics in Social Science |
| THE105 | Innovation in Musicals            |
| THE130 | Movie Theory                      |
| THE220 | Shakespeare in Film               |
| THE230 | Character Development             |
| THE238 | Acting and Movement               |
| THE310 | History of Movies                 |
| THE320 | Introduction to Shakespeare       |
| THE325 | Cinema Genre Studies              |
| THE330 | Scriptwriting                     |

## MAJOR-SPECIFIC REQUIREMENTS

Majors are established by the University to provide specialization and advanced work in a technological discipline. Each major represents an industry current technology field and is designed to change as the technology within the field progresses. In completing the course requirements of a major, students select topic areas that emphasize skills associated with specific industry targets.

The University has provided in this catalog grouped elective courses beyond the required courses for each major; however, each student may select courses from any major they desire in combination to individually customize their educational degrees beyond the minimum requirements.

Students are encouraged to seek out guidance from their Academic Advisor when making course choices.

# ASSOCIATE AND BACHELOR OF ARTS MAJORS

Arts degrees at UAT are focused at the intersection of creativity, traditional art theory and technology application. At the core of these degrees is the understanding that art and technology reach into everyone's lives, virtually all of the time, because technologies engage the primary senses of sight, sound and touch. Combining traditional art theory with technology application allows for the creation of intuitive, meaningful and striking presentation of information and innovation in the creation of product design and implementation. Students within arts majors will gain an appreciation for art, design and the intersection of these concepts with new technologies.

## BACHELOR OF ARTS (BA)

### DEGREE REQUIREMENTS

|  |     |
|--|-----|
| Core Credits   | 24  |
| General Education Credits (Minimum)  | 36  |
| Major-Specific Credits (Minimum)   | 30  |
| Elective Credits   | 30  |
| Total Semester Credits (Minimum)   | 120 |
| Within 120 minimum credit hours, the following requirements also apply:<br>> Minimum Total 300/400 Level Credits | 39  |

## ASSOCIATE OF ARTS (AA)

### DEGREE REQUIREMENTS

|                                     |    |
|-------------------------------------|----|
| Core Credits                        | 6  |
| General Education Credits (Minimum) | 24 |
| Major-Specific Credits (Minimum)    | 15 |
| Elective Credits                    | 15 |
| Total Semester Credits (Minimum)    | 60 |

## GRADUATION REQUIREMENTS

1. Successful completion of an approved program of study.
2. Successful completion of the minimum credits required by UAT's accrediting body for the desired degree.
3. Meet minimum Satisfactory Academic Progress Standards at the completion of their program of study.
4. Meet minimum cumulative GPA of at least 2.0.
5. Submittal of a completed and approved Application for Degree with the Office of the Registrar.
6. Completion of Student Innovation Project (SIP) and Boards requirement. SIP and Boards requirements include the submission and review of both digital and physical artifacts to demonstrate the student's capabilities within the discipline being studied (Bachelor's degree candidates only). For the dual degree, boards are required for each degree; additional Student Innovation Projects are not required.

Upon successfully completing the above requirements and meeting all University graduation requirements put forth in the graduation policy, a Bachelor or Associate of Arts degree will be awarded.

## DEGREES

Courses within degrees are noted for students within each degree description. Taking all recommended credits within a degree may result in minimum credit hours required in the degree program exceeding 120 in the bachelor's program and 60 in the associate's program. Additionally, depending on the major, certain General Education or other courses may be required to fulfill prerequisites. Seeking guidance from a Student Services Advisor is encouraged to promote each student's highest success.

## ADVERTISING ART

Harness and hone your artistic skills for a long-term career in Advertising Art. Students will create captivating commercial art for display in many formats/contexts such as print, online, and social media. Learn to create advertising assets that use a wide variety of media and techniques to reach customers such as traditional illustration, digital illustration, typography, and photography. Graduates will be prepared to take positions related to the fast-paced fields of digital marketing and graphic design where they can help organizations enhance customer acquisition and retention.

### ADVERTISING ART DEGREE OBJECTIVES

1. Apply the principles and elements of design for both online and offline deliverables.
2. Leverage the understanding of human behavior and conditioning to influence choice and decision-making using innovative methods and systems.
3. Follow branding guidelines on all visual communication to maintain a consistent and cohesive message through design and execution.
4. Create 2D, 3D and multi-media assets that incorporate compelling story-telling for the promotion of people, products, and organizations.
5. Demonstrate the ability to build quality content that includes video, photography, web design, and visual effects using the most advanced digital tools for media consumption.
6. Learn best practices and utilize tools that model creative agency environments and production studios.

### ADVERTISING ART DEGREE COURSES

*Courses in bold text are required for a Bachelor of Arts in Advertising Art. Courses with an asterisk (\*) are required for an Associate of Arts in Advertising Art.*

#### FOUNDATIONAL COURSES

|                |   |
|----------------|---|
| <b>ART103*</b> | <b>Digital Asset Creation</b>                 |
| ART112         | Graphic Design Principles                     |
| ART121         | Beginning Drawing I                           |
| ART231         | Intermediate Drawing                          |
| ART233         | Concept Art                                   |
| ART234         | Storyboarding                                 |
| CIS100         | Beginning Website Interfaces                  |
| <b>DMD150</b>  | <b>Digital Tools for Media and Design</b>     |
| DVA145         | Intro to 3D Studio Max and Maya               |
| MKT120         | Survey of Business and Marketing for Industry |

#### SKILLS DEVELOPMENT COURSES

|               |                                      |
|---------------|--------------------------------------|
| ART209        | Typography                           |
| ART236        | Basic Character Drawing              |
| ART240        | Figure and Character Sculpting       |
| ART255        | Visual Communications/Graphic Design |
| CIS240        | Designing Website Interfaces I       |
| DMD210        | Vector Illustration                  |
| DMD220        | Principles of Interface Design       |
| <b>DMD230</b> | <b>Your Digital Self</b>             |
| DVA353        | Visual Effects Composition           |

#### SYNTHESIS COURSES

|               |  |
|---------------|--|
| CIS340        | Designing Website Interfaces II            |
| MGT425        | Trends in Business Technologies            |
| MGT450        | ROI Based Decision Making and Negotiations |
| MKT320        | New Media Communication and Marketing      |
| MKT330        | SEO and Online Applied Marketing           |
| <b>PDS300</b> | <b>Production Studio I</b>                 |
| <b>PDS400</b> | <b>Production Studio II</b>                |

## DIGITAL VIDEO

The moving image has emerged as the ubiquitous communication medium of the 21<sup>st</sup> century from the big screen of the local multiplex to the small screen of your favorite portable device and everywhere in between. The Digital Video degree prepares

students to become the creative technologists who work behind the scenes to bring these images to life. Digital Video students produce polished and professional completed works through explorations of the aesthetic principles of visual storytelling and the mastery of industry-standard production and post-production tools. Students will learn applications in the diverse industries of film, video, television, animation, advertising and interactive content production. As innovations in digital image creation, post-production and distribution continue to become the new standards of this industry, graduates from this degree program will be uniquely positioned to apply new technological solutions to the task of delivering visual content to the ever-hungrier 21<sup>st</sup> century audience.

### **DIGITAL VIDEO DEGREE OBJECTIVES**

1. Design and assemble preproduction materials for digital video projects.
2. Work in a creative leadership role on a minimum of one (1) complete digital project produced in the Production Studio courses. Creative leadership roles include director, writer, producer, editor, cinematographer, sound designer, visual effects supervisor, compositing supervisor, art director, production designer, or graphic designer.
3. Create visuals that exhibit professional quality in terms of camerawork, composition and lighting.
4. Integrate composite shots into complete works by employing industry-standard tools and techniques.
5. Edit and color grade digital projects using industry-standard nonlinear editors and post-production tools.
6. Record, edit and mix high quality audio, including dialogue, sound effects and music, which are integrated into a complete digital production.

### **DIGITAL VIDEO DEGREE COURSES**

*Courses in bold text are required for a Bachelor of Arts in Digital Video. Courses with an asterisk (\*) are required for an Associate of Arts in Digital Video.*

#### FOUNDATIONAL COURSES

|                |   |
|----------------|---|
| ART103         | Digital Asset Creation                        |
| ART112         | Graphic Design Principles                     |
| ART121         | Beginning Drawing I                           |
| ART234         | Storyboarding                                 |
| DBM150         | Introduction to Maker Studio                  |
| <b>DVA101*</b> | <b>Digital Film Fundamentals</b>              |
| DVA110         | Lighting and Environment Design               |
| <b>DVA140</b>  | <b>Digital Audio Fundamentals</b>             |
| <b>DVA145</b>  | <b>Introduction to 3D Studio Max and Maya</b> |
| DVA238         | Introduction to Directing and Producing       |
| GAA110         | Introduction to Game Art and Animation        |
| THE130         | Movie Theory                                  |

#### SKILLS DEVELOPMENT COURSES

|        |  |
|--------|--|
| DBM240 | Electromechanical Devices              |
| DVA230 | Digital Audio Production               |
| DVA234 | Special Effects and Character Makeup   |
| DVA241 | Digital Film Production                |
| DVA254 | Motion Graphics                        |
| DVA265 | Innovative Camera Tools and Techniques |
| DVA274 | Digital Film Editing                   |
| DVA335 | Digital Cinematography                 |
| DVA353 | Visual Effects Compositing             |
| GAA220 | 3D Modeling Environments and FX        |
| GAA230 | 3D Modeling Characters and Vehicles    |
| GAA325 | Materials, Shaders and Lighting        |
| GAA330 | Characters and Vehicle Animation       |

#### SYNTHESIS COURSES

|               |  |
|---------------|--|
| DVA320        | Film CGI Pipeline                              |
| DVA334        | Special Effects and Character Makeup II        |
| GAA430        | Advanced Character Rigging and MoCap Animation |
| <b>PDS300</b> | <b>Production Studio I</b>                     |
| <b>PDS400</b> | <b>Production Studio II</b>                    |

## GAME ART AND ANIMATION

Students in the Game Art and Animation program will gain an insight into what is involved at all levels of game development to create 2D and 3D art and animation assets for multiple video game platforms such as PC, consoles, mobile, online and virtual reality. Students will master the artistic principles used in video game art asset creation such as color theory, lighting, shading, anatomy, perspective, and scene staging. Students will show mastery in low polygon and high polygon modeling, texturing, rigging, framing, and motion capture animations. Students in this program will be prepared for jobs such as character artist modeler and texture artist, character artist animator and rigger, environment artist modeler and texture artist, environment artist animator, mechanical mesh modeler and texture artist, and mechanical mesh animator and rigger.

### GAME ART AND ANIMATION DEGREE OBJECTIVES

1. Demonstrate and communicate aesthetic skills and choices based on traditional art theories and current game development practices and next generation research.
2. Conceptualize and generate pre-production art assets through pre-visualization and prototypes usable for multiple game platforms.
3. Demonstrate the core skills needed to create 2D and 3D art assets, textures, and animations utilizing industry-standard software tools.
4. Create industry quality 2D and 3D art assets (such as characters, props, textures, environment elements, and collision objects) or animations (keyframed and motion capture character, environmental and FX) for use in game projects utilizing industry-standard software tools, pipelines, and platform guidelines.
5. Adapt, export, integrate, and optimize game art and animation assets (including shaders and lighting) into 2D and 3D game projects working within a production pipeline and the confines of a project's game engine, tools and other constraints.
6. Establish collaboration, mentorship, and professional leadership skills by working with other disciplines to deliver highly polished and completed projects.

### GAME ART AND ANIMATION DEGREE COURSES

*Courses in bold text are required for a Bachelor of Arts in Game Art and Animation. Courses with an asterisk (\*) are required for an Associate of Arts in Game Art and Animation.*

#### FOUNDATIONAL COURSES

|                |   |
|----------------|---|
| ART233         | Concept Art                                   |
| ART234         | Storyboarding                                 |
| ART240         | Figure and Character Sculpting                |
| <b>GAA105*</b> | <b>Game Art and Animation Fundamentals</b>    |
| <b>GAA110*</b> | <b>Introduction to Game Art and Animation</b> |
| GAM125         | Introduction to Game Development              |

#### SKILLS DEVELOPMENT COURSES

|               |  |
|---------------|--|
| <b>GAA220</b> | <b>3D Modeling Environments and FX</b>     |
| <b>GAA230</b> | <b>3D Modeling Characters and Vehicles</b> |
| GAA240        | Game Texturing                             |
| GAA320        | Environmental and FX Animation             |
| GAA325        | Materials, Shaders and Lighting            |
| GAA330        | Characters and Vehicles Animation          |
| GAA360        | UI Design and Animation                    |
| VRT232        | Gamification                               |

#### SYNTHESIS COURSES

|               |  |
|---------------|--|
| GAA420        | Advanced Game Environment Creation             |
| GAA430        | Advanced Character Rigging and MoCap Animation |
| GAA440        | Advanced Game Character Creation               |
| GAA490        | Industry Professional Development              |
| GAM465        | Game-A-Week                                    |
| <b>PDS300</b> | <b>Production Studio I</b>                     |
| <b>PDS400</b> | <b>Production Studio II</b>                    |

# GAME DESIGN

Game Design students focus on the design principles, skills and techniques required to create mechanics, game documentation and functioning prototypes for innovative game projects. Game Design students will utilize industry-standard tool sets and resources, including game programming, scripting and asset creation. The coursework emphasizes design skills such as design documentation, systems design, level design, game balancing, play-testing, interactive storytelling and user experience design. Students in the Game Design program will also take a critical approach to the study of gameplay, player interaction and community dynamics as well as the unique features of the multiple video game platforms such as PC, consoles, mobile, and virtual reality. In team-based projects, design students will work with artists and programmers to create complete projects. Applying all the elements of the game creation process, Game Design students will also develop the mentorship and leadership skills to complete projects from initial concept to publishing a final product.

## GAME DESIGN DEGREE OBJECTIVES

1. Prototype and complete original games for multiple platforms following the full game production pipeline.
2. Create and implement game elements, systems, and play mechanics using industry-standard tools, techniques, and production methods, including art or scripting/programming applications.
3. Demonstrate effective game design practices and techniques within the project scope and context such as genre, style, platform, and audience.
4. Demonstrate the ability to evaluate game designs for a variety of game play mechanics, game applications, and game genres.
5. Effectively articulate game design elements and mechanics across disciplines utilizing written and verbal communication skills.
6. Establish collaboration, mentorship, and professional leadership skills by working with other disciplines to deliver highly polished and completed projects.

## GAME DESIGN DEGREE COURSES

*Courses in bold text are required for a Bachelor of Arts in Game Design. Courses with an asterisk (\*) are required for an Associate of Arts in Game Design.*

### FOUNDATIONAL COURSES

- GAM101\*** Introduction to Game Design  
**GAM113\*** Introduction to Game Tools  
**GAM125** Introduction to Game Development  
 GAM170 Game Design Workshop I

### SKILLS DEVELOPMENT COURSES

- GAM175 Game Testing and Analysis  
 GAM200 Critical Game Studies  
 GAM218 Game Scripting for Designers  
 GAM235 Game AI Concepts  
 GAM310 Level Design  
 VRT232 Gamification

### SYNTHESIS COURSES

- GAM351 Writing for Interactive Games  
 GAM352 Game Systems Design  
 GAM370 Game Design Workshop II  
 GAM385 Casual Game Design  
 GAM425 Advanced Level Design  
 GAM465 Game-A-Week  
 GAM495 Industry Professional Development  
**PDS300** Production Studio I  
**PDS400** Production Studio II  
 VRT380 Serious Game Design

### RECOMMENDED ELECTIVE

- GAM150 Evolution of Electronic Games

## VIRTUAL REALITY

Interactive entertainment and practices have become a part of everyday life, and there is a growing expectation that gaming-based technologies and interactions are being embraced by mainstream businesses and organizations. This gamification of user experiences is key to the virtual reality and augmented reality platforms. The Virtual Reality degree uses gamification as a base and applies the design principles of interactive software development to virtual reality applications such as corporate training, medical, therapeutic, military, and education. As this is a highly technical field, students will be exposed to the tools and philosophies of interactive development as well as mid-level programming and asset creation skill sets. The coursework emphasizes design skills such as strong initial concepts, design documentation, game balancing and play-testing, interactive storytelling and interface design with an eye toward developments in the virtual reality and augmented reality field. Students in the Virtual Reality degree program will also take a critical approach to the study of gameplay, player interaction, user experience, and community dynamics as well as the unique features of the numerous interactive platforms available in the marketplace. Applying all the elements of the software creation process, students will also develop the mentorship and leadership skills to complete projects from initial concept to publishing a final product.

### VIRTUAL REALITY DEGREE OBJECTIVES

1. Prototype and complete original virtual / augmented reality applications for multiple platforms utilizing a full project development lifecycle from concept to completion.
2. Create and implement immersive user experiences that utilize the interaction approaches unique to virtual / augmented reality hardware and platforms.
3. Design and develop simulations that leverage gamification on virtual / augmented reality platforms to enhance the outcomes of non-entertainment applications such as training, medical, therapeutic, military, or learning based environments.
4. Create the designs, assets, scripting, and programming needed to effectively realize fully interactive and engaging virtual reality worlds.
5. Create, implement, evaluate, and analyze the systems and mechanics utilizing written and verbal communication skills that demonstrate visualizations representing data, real world entities, events, and interactions.
6. Establish collaboration, mentorship, and professional leadership skills by working with other disciplines to deliver highly polished and completed projects in the virtual / augmented reality space.

### VIRTUAL REALITY DEGREE COURSES

*Courses in bold text are required for a Bachelor of Arts in Virtual Reality. Courses with an asterisk (\*) are required for an Associate of Arts in Virtual Reality.*

#### FOUNDATIONAL COURSES

ART103 Digital Asset Creation

**GAM101\*** Introduction to Game Design

GAM113 Introduction to Game Tools

GAM125 Introduction to Game Development

**HCI101** Introduction to Human-Computer Interaction

**VRT101\*** Introduction to Virtual and Augmented Reality

**VRT115** Introduction to Serious Games

#### SKILLS DEVELOPMENT COURSES

GAM175 Game Testing and Analysis

GAM200 Critical Game Studies

GAM218 Game Scripting for Designers

GAM310 Level Design

GAM352 Game Systems Design

VRT232 Gamification

VRT260 Instructional Design

VRT310 Virtual Environments

VRT320 VR/AR User Experience Design

VRT330 Augmented Reality Development

#### SYNTHESIS COURSES

GAM495 Industry Professional Development

**PDS300** Production Studio I

|               |                             |
|---------------|-----------------------------|
| <b>PDS400</b> | <b>Production Studio II</b> |
| VRT380        | Serious Game Design         |
| VRT420        | Telepresence                |
| VRT456        | Augmented Reality           |
| VRT481        | Virtual Reality World Build |

# ASSOCIATE AND BACHELOR OF SCIENCE MAJORS

Science majors at UAT were created in response to a need for professional technology graduates in the emerging disciplines at the intersection of science and technology. Each science major requires students to explore the conceptual, scientific underpinning of their technology discipline so that, as the discipline advances, their capacity advances with it. Each major offers an opportunity to understand how technology integrates into society, adding functionality and speed to activity. Students in these majors will have the opportunity to learn and create software applications that advance their discipline. Graduates will be prepared for employment in companies of various size and complexity, from small businesses to enterprise-level corporations.

## BACHELOR OF SCIENCE (BS) DEGREE REQUIREMENTS

|  |     |
|--|-----|
| Core Credits   | 24  |
| General Education Credits (Minimum)  | 36  |
| Major-Specific Credits (Minimum)   | 30  |
| Elective Credits   | 30  |
| Total Semester Credits (Minimum)   | 120 |
| Within 120 minimum credit hours, the following requirements also apply:<br>> Minimum Total 300/400 Level Credits | 39  |

## ASSOCIATE OF SCIENCE (AS) DEGREE REQUIREMENTS

|                                     |    |
|-------------------------------------|----|
| Core Credits                        | 6  |
| General Education Credits (Minimum) | 24 |
| Major-Specific Credits (Minimum)    | 15 |
| Elective Credits                    | 15 |
| Total Semester Credits (Minimum)    | 60 |

## GRADUATION REQUIREMENTS

1. Successful completion of an approved program of study.
2. Successful completion of the minimum credits required by UAT's accrediting body for the desired degree.
3. Meet minimum Satisfactory Academic Progress Standards at the completion of their program of study.
4. Meet minimum cumulative GPA of at least 2.0.
5. Submittal of a completed and approved Application for Degree with the Office of the Registrar.
7. Completion of Student Innovation Project (SIP) and Boards requirements. SIP and Boards requirements include the submission and review of both digital and physical artifacts to demonstrate the student's capabilities within the discipline being studied (Bachelor's degree candidates only). For dual degree, boards are required for each degree; additional Student Innovation Projectes are not required.

Upon successfully completing the above requirements and meeting all University graduation requirements put forth in the graduation policy, a Bachelor or Associate of Science degree will be awarded.

## DEGREES

Courses within degrees are noted for students in each degree description. Taking all recommended credits within a degree may result in minimum credit hours required in the degree program exceeding 120 in the Bachelor's program and 60 in the Associate's program. Additionally, depending on the major, certain General Education or other courses may be required to fulfill prerequisites. Seeking guidance from a Student Services Advisor is encouraged to promote each student's highest success.

## ADVANCING COMPUTER SCIENCE

The craft of programming transcends individual programming languages and emphasizes design across multiple scales, from the design of individual programs to complex multi-platform software architectures including mobile platforms, multiple frameworks and multiple design patterns. The Advancing Computer Science (ACS) program balances the science of computing and the art of design, with the application of these principles to real-world problems. Graduates in ACS will be prepared for software development positions where understanding of algorithms and complex software design are important as well as being well-versed in mobile, frameworks, and multiple programming languages and environments.

### ADVANCING COMPUTER SCIENCE DEGREE OBJECTIVES

1. Follow a software development process to analyze a problem, and to design, build and test software solutions.
2. Demonstrate software development skills using more than one programming language and development environment.
3. Implement data driven solutions.
4. Design and implement software solutions for mobile devices or embedded systems or multiple platforms.
5. Document the planning and development of software applications using industry-standard tools, techniques and processes.
6. Within software solutions describe, implement and analyze data structure techniques such as lists, trees, hash tables, graphs, along with sorting and searching algorithms.

### ADVANCING COMPUTER SCIENCE DEGREE COURSES

*Courses in bold text are required for a Bachelor of Science in Advancing Computer Science. Courses with an asterisk (\*) are required for an Associate of Science in Advancing Computer Science.*

#### FOUNDATIONAL COURSES

CIS100 Beginning Website Interfaces

**CSC102\*** **Introduction to Programming**

Choose from the following:

**CSC202\*** **C# Programming I**

or

**CSC203\*** **Java Programming I**

or

**CSC215\*** **C/C++ Programming I**

#### SKILLS DEVELOPMENT COURSES

CIS240 Designing Website Interfaces I

CSC211 Introduction to Databases

CSC230 Internet of Things

CSC235 Python Programming

CSC240 Linux Operating System

Choose from the following:

**CSC262** **C# Programming II**

or

**CSC263** **Java Programming II**

or

**CSC275** **C++ Programming II**

CSC311 Advanced Databases

CSC312 Cloud Computing

CSC318 Software Engineering Principles

CSC330 Mobile Development for Android

CSC331 Mobile Development for iOS

CSC340 Big Data Essentials

CSC350 Software Quality Assurance

CSC373 Machine Learning

#### SYNTHESIS COURSES

CIS340 Designing Website Interfaces II

CSC313 Operating Systems Theory

CSC345 High Performance Embedded Systems

CSC382 Data Structures and Algorithms

|               |  |
|---------------|--|
| CSC413        | Advanced Software Development I  |
| CSC436        | Data Analytics   |
| CSC438        | Algorithms, Frameworks and Design Patterns for Artificial Intelligence |
| CSC442        | Secure Coding  |
| CSC444        | Deep Learning  |
| CSC445        | Advanced Web Programming   |
| <b>PDS300</b> | <b>Production Studio I</b>   |
| <b>PDS400</b> | <b>Production Studio II</b>  |
| VRT456        | Augmented Reality  |

#### RECOMMENDED GENERAL EDUCATION COURSES

|        |             |
|--------|-------------|
| MAT220 | Statistics  |
| MAT250 | Calculus I  |
| MAT251 | Calculus II |

## ARTIFICIAL INTELLIGENCE

Artificial Intelligence (AI) explores the theory and development of tools that simulate thinking, patterning and advanced decision behaviors by software running on computing devices. AI applications are able to solve and navigate complex scenarios that require drawing inferences appropriate to situations, performing decision-making using complex and changing data, discovering meaning, generalizing conclusions based upon learned events and from experience. AI approaches within software form the underpinnings of autonomous devices, such as self-driving vehicles and drones. Technologies such as big data analysis, voice recognition, simulation agents and IoT devices all require AI algorithms. UAT studies in AI cover fundamentals of general and applied artificial intelligence including core programming languages and platforms used in computer science. Advanced coursework encompasses applying principles of natural language processing, machine learning, behavior simulation and deep learning based upon big data sets. Students prepare for future-oriented AI uses by applying computer science approaches and AI concepts as they develop solutions to real-world projects within production studio settings.

### ARTIFICIAL INTELLIGENCE DEGREE OBJECTIVES

1. Develop, analyze and integrate artificial intelligence application and IoT systems.
2. Demonstrate skills to design and create natural language processing systems.
3. Demonstrate designing and creating machine learning systems using best practices and patterns.
4. Demonstrate new and original data in deep learning by consuming big data with original algorithms.
5. Demonstrate software development skills using more than one programming language, development environment, platform, and source control system.
6. Describe, develop, analyze, integrate data structures, databases, and database management systems.

### ARTIFICIAL INTELLIGENCE DEGREE COURSES

*Courses in bold text are required for a Bachelor of Science in Artificial Intelligence. Courses with an asterisk (\*) are required for an Associate of Science in Artificial Intelligence.*

#### FOUNDATIONAL COURSES

##### **CSC102\*** Introduction to Programming

Choose from the following:

##### **CSC202\*** C# Programming I

or

##### **CSC203\*** Java Programming I

or

##### **CSC215\*** C/C++ Programming I

#### SKILLS DEVELOPMENT COURSES

|               |                             |
|---------------|-----------------------------|
| CSC211        | Introduction to Databases   |
| CSC230        | Internet of Things          |
| <b>CSC235</b> | <b>Python Programming I</b> |
| CSC240        | Linux Operating System      |
| CSC262        | C# Programming II           |
| CSC263        | Java Programming II         |
| CSC275        | C++ Programming II          |

|               |                                 |
|---------------|---------------------------------|
| CSC318        | Software Engineering Principles |
| CSC330        | Mobile Development for Android  |
| CSC331        | Mobile Development for iOS      |
| CSC350        | Software Quality Assurance      |
| <b>CSC370</b> | <b>Artificial Intelligence</b>  |
| CSC373        | Machine Learning                |
| CSC382        | Data Structures and Algorithms  |

#### SYNTHESIS COURSES

|               |  |
|---------------|--|
| CSC438        | Algorithms, Frameworks and Design Patterns for Artificial Intelligence |
| CSC444        | Deep Learning  |
| <b>PDS300</b> | <b>Production Studio I</b>   |
| <b>PDS400</b> | <b>Production Studio II</b>  |
| VRT456        | Augmented Reality  |

## BUSINESS TECHNOLOGY

This leadership major is designed to prepare students for careers in today's technology-centric business world. Students learn a contemporary combination of business skills such as: data analysis, Lean Defect Reduction, Lean Startup, Agile and SCRUM techniques, startup financing and go-to market strategy. Upon graduation, students are empowered to lead in a high-tech environment with a technology-minded workforce, or even start their own technology startup.

### BUSINESS TECHNOLOGY DEGREE OBJECTIVES

1. Demonstrate the ability to create and document technology strategies and product development plans.
2. Demonstrate the ability to assemble resources and infrastructure needed to successfully take technologies to market.
3. Demonstrate capacity to apply lean/agile approaches in the development of organizational mission, strategy and technology product development.
4. Demonstrate baseline knowledge of business operational elements (finance, legal, operations, resources, marketing, market analysis, manufacturing and supply infrastructure).
5. Demonstrate competency in leading technology teams.
6. Generate and visualize data for use as decision making analytics that metric and communicate organizational performance.

### BUSINESS TECHNOLOGY DEGREE COURSES

*Courses in bold text are required for a Bachelor of Science in Business Technology. Courses with an asterisk (\*) are required for an Associate of Science in Business Technology.*

#### FOUNDATIONAL COURSES

|                |   |
|----------------|---|
| MGT102         | Management in a Technology Environment        |
| <b>MGT220*</b> | <b>Project Management</b>                     |
| MKT100         | Art of Sales                                  |
| MKT120         | Survey of Business and Marketing for Industry |
| MKT220         | Brand Management Strategies                   |

#### SKILLS DEVELOPMENT COURSES

|               |   |
|---------------|---|
| ENT305        | Entrepreneurial Operations                              |
| MGT230        | Organizational Development                              |
| <b>MGT322</b> | <b>Financial Management in a Technology Environment</b> |
| MGT324        | Managing Change and Innovation                          |
| MGT330        | Leading Technologists and Technology Teams              |
| <b>MKT250</b> | <b>Marketing Environments</b>                           |
| TCH200        | Product Development                                     |

#### SYNTHESIS COURSES

|        |  |
|--------|--|
| MGT320 | Strategic Accounting                       |
| MGT415 | Strategic Planning and Analytics           |
| MGT423 | Data Visualization and Mining              |
| MGT425 | Trends in Business Technology              |
| MGT441 | Business Intelligence and Data Management  |
| MGT450 | ROI Based Decision Making and Negotiations |

|               |   |
|---------------|---|
| MGT456        | Big Data Analytics                                      |
| MKT320        | New Media Communications and Marketing                  |
| MKT330        | SEO and Applied Online Marketing                        |
| NTW428        | The Business of Technology                              |
| <b>PDS300</b> | <b>Production Studio I</b>                              |
| <b>PDS400</b> | <b>Production Studio II</b>                             |
| TCH405        | Technology Product Design Project                       |
| TCH490        | Forecasting Emergent Technologies                       |
| TCH491        | New Technologies, Innovation, Production and the Market |

#### REQUIRED GENERAL EDUCATION COURSES

**MAT210 Business Mathematics**

#### TECHNOLOGY COURSES, ADDITIONAL REQUIREMENT

Students within the Business Technology major will complete a minimum of 15 credits of coursework drawn from the Foundational, Skills Development or Synthesis areas of a different technology major.

## DATA SCIENCE

Businesses depend on software and data systems to inform their processes and to provide a competitive edge. Data forward software developers capture streams of information and make this information useful to people and companies. Such skills are needed as more aspects of our world and environments are connected and generate real-time information in ways that can be captured and used. Human behavioral patterns, IoT, weather, nature, connected city infrastructures, biological, health and organizational operations are typical of systems generating data now and into the future. Students in UAT's Data Science program will learn to craft code that interacts with data and present it in a way that creates understanding and value to organizations, communities and individuals. They will work with large data sets that often are being created in real-time. Students and graduates will be capable of working with dynamic data, understanding how to identify and focus on key elements of data, be able to draw conclusions from it and present discovered information to others in ways that are easily used and able to draw conclusions from.

#### DATA SCIENCE DEGREE OBJECTIVES

1. Develop data science applications that utilize descriptive and real-time data from sources such as human behavioral patterns, IoT, weather, nature, connected city infrastructures, biological, health and organizational operations.
2. Visualize data science processes, operations and inputs.
3. Provide analysis of large and real-time data from sources such as human behavioral patterns, IoT, weather, nature, connected city infrastructures, biological, health and organizational operations to provide insight and value.
4. Demonstrate software development skills using more than one programming language and development environment.
5. Design and implement software solutions across multiple platforms.
6. Within software solutions describe, implement and analyze data structure techniques such as lists, trees, hash tables, graphs, along with sorting and searching algorithms.

#### DATA SCIENCE DEGREE COURSES

*Courses in bold text are required for a Bachelor of Science in Data Science. Courses with an asterisk (\*) are required for an Associate of Science in Data Science.*

#### FOUNDATIONAL COURSES

**CIS175\*** **Data Collection, Verification, Transformation and Analysis**

**CSC102\*** **Introduction to Programming**

MGT102 Management in a Technology Environment

Choose from the following:

**CSC202 C# Programming I**

or

**CSC203 Java Programming I**

or

**CSC215 C/C++ Programming I**

#### SKILLS DEVELOPMENT COURSES

CSC211 Introduction to Databases

CSC230 Internet of Things

|        |   |
|--------|---|
| CSC262 | C# Programming II                       |
| CSC263 | Java Programming II                     |
| CSC275 | C++ Programming II                      |
| CSC312 | Cloud Computing                         |
| CSC318 | Software Engineering Principles         |
| CSC330 | Mobile Development for Android          |
| CSC331 | Mobile Development for iOS              |
| CSC340 | Big Data Essentials                     |
| CSC350 | Software Quality Assurance              |
| CSC377 | Machine Learning Utilizing Data Science |
| CSC382 | Data Structures and Algorithms          |

#### SYNTHESIS COURSES

|               |   |
|---------------|---|
| CSC370        | Artificial Intelligence                   |
| CSC436        | Data Analytics                            |
| CSC462        | Data Visualization                        |
| CSC482        | Data Visualization Utilizing Data Science |
| CSC484        | Data Mining                               |
| CSC488        | Deep Learning Utilizing Data Science      |
| <b>PDS300</b> | <b>Production Studio I</b>                |
| <b>PDS400</b> | <b>Production Studio II</b>               |

#### RECOMMENDED GENERAL EDUCATION COURSES

|        |             |
|--------|-------------|
| MAT220 | Statistics  |
| MAT251 | Calculus II |

## DIGITAL MAKER AND FABRICATION

As an inventor and innovator, it is now possible to prototype, evaluate and bring creations to market by way of digital fabrication tools. The Digital Maker and Fabrication (DMF) degree prepares graduates to design and build new technology devices by combining design theory, programming, materials, human factors and prototyping with 3D print and other maker technologies. Students in this program will model and design objects using 3D software. Students will also learn to inform their designs based upon choosing the best materials for each design element. Students will learn how to program the hardware and electronics driving their devices, using tools such as C++ and Arduino in ways that support creating smart devices and internet enabled devices. By learning how to effectively use maker prototyping technologies such as 3D printers, digital cutters, CNC fabric devices and virtual reality tools, students are able to rapidly visualize and prototype devices. DMF students become adept at the process of refining technology creations and devices to make them ready for market and within design and fabrication settings.

### DIGITAL MAKER AND FABRICATION DEGREE OBJECTIVES

1. Demonstrate the ability to prototype, build and apply for patents for technology products meeting specific human factors, form and function criteria.
2. Demonstrate the ability to evaluate trends in design principles and apply them into the form and function of devices.
3. Demonstrate the ability to evaluate material and build technique options during the creation of products and their prototypes.
4. Demonstrate the ability to evaluate and implement developments within electromechanical, algorithmic, robotic, microprocessor, sensor and other advancing technology areas while making product design decisions.
5. Demonstrate the ability to work within a maker studio environment to design, build, test and revise products that meet client timeline, design and quality requirements.
6. Demonstrate proficiency with industry accepted prototyping, modeling, build and maker tools and techniques.

### DIGITAL MAKER AND FABRICATION DEGREE COURSES

*Courses in bold text are required for a Bachelor of Science in Digital Maker and Fabrication. Courses with an asterisk (\*) are required for an Associate of Science in Digital Maker and Fabrication.*

#### FOUNDATIONAL COURSES

|        |                           |
|--------|---------------------------|
| ART112 | Graphic Design Principles |
| ART121 | Beginning Drawing 1       |
| ART233 | Concept Art               |

**CSC102\* Introduction to Programming**

CSC215 C/C++ Programming I

**DBM100\* 3D Build Tools****DBM150 Introduction to Maker Studio**

RBT131 Digital Logic Basic Processor Design

RBT205 Mechanics and Materials

**TCH100 Introduction to Design**

## SKILLS DEVELOPMENT COURSES

DBM215 Prototyping Tools and Practice

DBM240 Electromechanical Devices

DBM360 Wearable Technologies

DMD220 Principles of Interface Design

RBT173 Introduction to Microcontrollers

RBT211 Arduino Embedded Programming

TCH200 Product Development

TCH270 The Design Process

## SYNTHESIS COURSES

**PDS300 Production Studio I****PDS400 Production Studio II**

RBT307 Physical Computing Studio

TCH405 Technology Product Design Project

TCH410 Advanced Topics in Technology Product Design

TCH491 New Technologies: Innovation, Production and the Market

## DIGITAL MARKETING

Marketing has evolved into a world of digital assets and outreach to pinpoint the customers of today. Consumers and businesses spend much of their time online, so the need for developing digital marketing is essential in the business world. The Digital Marketing degree prepares graduates to utilize current marketing trends such as social media, search engine marketing, content creation and targeted digital strategies so they will be relevant in the marketing industry. Graduates will be prepared to enter positions related to and connected with digital marketing, online advertising and social media which are common needs of every organization.

**DIGITAL MARKETING DEGREE OBJECTIVES**

1. Understand inbound marketing and SEO strategies based on evolving trends in the market.
2. Create content that fosters the growth and engagement of a targeted audience.
3. Design and implement digital marketing strategies that follow branding guidelines.
4. Identify basic KPIs (Key Performance Indicators) through analytics for conversion optimization.
5. Cultivate leadership qualities through the development and management of marketing campaigns.
6. Develop the ability to work with standard and emerging platforms used in the industry for digital advertising.

**DIGITAL MARKETING DEGREE COURSES**

*Courses in bold text are required for a Bachelor of Science in Digital Marketing. Courses with an asterisk (\*) are required for an Associate of Science in Digital Marketing.*

## FOUNDATIONAL COURSES

**ART103\* Digital Asset Creation**

ART112 Graphic Design Principles

CIS100 Beginning Website Interfaces

**DMD150\* Digital Tools for Media and Design**

MKT120 Survey of Business and Marketing for Industry

MKT220 Brand Management Strategies

## SKILLS DEVELOPMENT COURSES

ART255 Visual Communications/Graphics Design

CIS240 Designing Website Interfaces I

CIS340 Designing Website Interfaces II

DMD230 Your Digital Self

DMD235 Marketing for Digital Media

**MKT250 Marketing Environments**

SYNTHESIS COURSES

CIS430 Best Practices in Web Production

MKT320 New Media Communication and Marketing

MKT330 SEO and Applied Online Marketing

MGT423 Data Visualization and Mining

MGT425 Trends in Business Technology

MGT450 ROI Based Decision Making and Negotiation

**PDS300 Production Studio I**

**PDS400 Production Studio II**

## GAME PROGRAMMING

Courses in Game Programming will emphasize the essential issues and the skills required to develop games for multiple video game platforms such as PC, consoles, mobile, online and virtual reality. These skills have broader applications in related industries such as entertainment, business, research, and training. Game Programming students begin with the programming principles, skills, and techniques shared in all programming disciplines and then focus on game-specific features and techniques. This program emphasizes C++ programming, C# programming, scripting, data handling, gameplay interaction, artificial intelligence, networking and the use of industry-standard middleware, game engines, and APIs. Students in Game Programming will also develop a critical approach to the study of gameplay, interaction, and design.

### GAME PROGRAMMING DEGREE OBJECTIVES

1. Implement multiple completed games, including 3D games, using common tools, languages, and software for web, console, PC, or mobile platforms.
2. Design, develop, and implement the architecture and infrastructure needed to support a complete game project.
3. Implement and analyze fundamental data structures and algorithms associated with game applications supporting gameplay mechanics.
4. Use software development processes to analyze a project problem, and to design, build, and test a corresponding software solution.
5. Demonstrate development skills using multiple programming languages, development environments, and platforms, including advanced and/or experimental topics in game programming.
6. Establish collaboration, mentorship, and professional leadership skills by working with other disciplines to deliver highly polished and completed projects.

### GAME PROGRAMMING DEGREE COURSES

*Courses in bold text are required for a Bachelor of Science in Game Programming. Courses with an asterisk (\*) are required for an Associate of Science in Game Programming.*

FOUNDATIONAL COURSES

**CSC102\*** Introduction to Programming

GAM125 Introduction to Game Development

**GPE104\*** Introduction to Game Programming

Choose from the following:

**CSC202 C# Programming I**

or

**CSC203 Java Programming I**

or

**CSC215 C/C++ Programming I**

SKILLS DEVELOPMENT COURSES

CSC275 C++ Programming II

CSC382 Data Structures and Algorithms

GAM175 Game Testing and Analysis

GPE205 Gameplay Programming Concepts

GPE275 Mobile Game Programming

GPE303 Applied Game AI Concepts

GPE310 Visual Programming for Games

GPE333 Scripting Integration  
 VRT232 Gamification

#### SYNTHESIS COURSES

GAM465 Game-A-Week  
 GAM495 Industry Professional Development  
 GPE338 Advanced Gameplay Programming  
 GPE340 Programming for Game Engines  
 GPE341 Game Tools Development  
 GPE361 Multiplatform Programming  
**PDS300 Production Studio I**  
**PDS400 Production Studio II**

#### RECOMMENDED ELECTIVES

CSC262 C# Programming II  
 CSC263 Java Programming II  
 CSC313 Operating Systems Theory  
 CSC413 Advanced Software Development I

#### RECOMMENDED GENERAL EDUCATION COURSES

MAT251 Calculus II  
 MAT342 Linear Algebra

## HUMAN COMPUTER INTERACTION

Human Computer Interaction (HCI) has its foundations on the interfaces and interactions between electronic devices and the users that rely upon them. Great HCI design leads to the satisfied adoption of new, advanced and innovative user interface software and technologies. The study and practice of designing interactions transforms the human computer interaction experience, so the computer is no longer a distracting focus of attention, but rather an invisible tool that empowers the individual user. Strong HCI design enhances creativity, human-to-human collaboration, extends productivity, increases safety and makes interacting with devices enjoyable. Applications of good HCI practices include: mobile and web applications, game and simulation, IoT devices, wearable technologies, novel use of computer technologies in education, intelligent interfaces, virtual and augmented reality environments and new I/O devices.

### HUMAN COMPUTER INTERACTION DEGREE OBJECTIVES

1. Articulate and apply concepts during the creation of human computer interactions that incorporate effective and aesthetic design concepts appropriately.
2. Evaluate the impact of new and emerging technology trends on human computer interactions and the user experience.
3. Be capable of evaluating a proposed HCI technology in terms of its application, platform and purpose. Translate this evaluation into an effective user experience and informed human-computer interaction design.
4. Analyze human factors such as cognition, use patterns and demographics and apply this analysis to the development of effective human computer interactions.
5. Evaluate HCI design options in terms of their cost to produce and against perceived benefit by the user.
6. Prototype and produce innovative interfaces or interactions for at least two of the following: web, PC, mobile, handheld or next generation platforms, including all production materials required in a complete pipeline using industry-standard tools, software and production processes.

### HUMAN COMPUTER INTERACTION DEGREE COURSES

*Courses in bold text are required for a Bachelor of Science in Human Computer Interaction. Courses with an asterisk (\*) are required for an Associate of Science in Human Computer Interaction.*

#### FOUNDATIONAL COURSES

ART103 Digital Asset Creation  
 ART112 Graphic Design Principles  
 ART234 Storyboarding  
 ART236 Basic Character Figure Drawing  
 CIS100 Beginning Website Interfaces  
**CSC102\* Introduction to Programming**  
 DBM100 3D Build Tools  
**HCI101\* Introduction to Human Computer Interaction**

HCI102 Human Factors  
 HCI320 Gender and Technologies

#### SKILLS DEVELOPMENT COURSES

CIS240 Designing Website Interfaces I  
 CIS275 Introduction to AI and Analytics  
 CSC230 Internet of Things  
 CSC330 Mobile Development for Android  
 CSC331 Mobile Development for iOS  
 DBM215 Prototyping Tools and Practice  
 DMD220\* Principles of Interface Design  
**HCI215 Designing Human Computer Interfaces**  
 HCI250 User Experience Design and Testing  
 RBT173 Introduction to Microcontrollers  
 TCH200 Product Development  
 VRT310 Virtual Environments  
 VRT330 Augmented Reality Development

#### SYNTHESIS COURSES

CIS340 Designing Website Interfaces II  
 DBM360 Wearable Technologies  
 HCI335 Designing Software Interactions  
 HCI350 Designing Device Interactions  
 HCI470 Emerging Interface Technologies  
 HCI490 Special Topics in HCI  
**PDS300 Production Studio I**  
**PDS400 Production Studio II**  
 RBT307 Physical Computing Studio  
 VRT481 Virtual Reality World Build

#### RECOMMENDED ELECTIVES

ART121 Beginning Drawing I  
 ART209 Typography  
 ART231 Intermediate Drawing  
 ART233 Concept Art  
 ART240 Figure and Character Sculpting  
 ART255 Visual Communications/Graphics Design  
 DMD210 Vector Illustration  
 RBT131 Digital Logic Basic Processor Design

## NETWORK ENGINEERING

The evolution of today's technology has seen a tremendous increase in the number and types of networked devices, network topologies, cloud implementations and the general hybridization of networks for all of the connectivity and communications needs. Highly skilled Network Engineers are responsible for the design, implementation and maintenance of our networked systems to include the integration of new technologies. A strong foundational knowledge of network and systems engineering concepts form the basis on which the advanced topics are built. Key concepts such as routing, switching, server operating systems, email systems, IOT, IP telephony, wireless, cloud, and virtualization will be explored in detail. Graduates will demonstrate a mastery of network architecture and be fluent in system and network device administration, cloud computing, and virtualization technology. This degree will prepare you with the skills required to become a successful network or systems engineer/administrator.

### NETWORK ENGINEERING DEGREE OBJECTIVES

1. Translate physical and organizational needs into network design(s) that fully address and support logical, physical, and/or virtualized operational requirements.
2. Implement, support, and evaluate network services (active directory, email, DNS, servers, clients and data storage), routed and switched network infrastructures (wired and wireless) that incorporate networking concepts and industry best practices.
3. Design network architectures that incorporate emerging networking technologies.

4. Produce professional and accurate visualizations and documentation related to network architecture and services.
5. Given cost and operational parameters, design network, hardware and system options with evaluations and recommendations of how they meet the requirements of specific projects.
6. Design and implement a secure network infrastructure using industry best practices.

### NETWORK ENGINEERING DEGREE COURSES

*Courses in bold text are required for a Bachelor of Science in Network Engineering. Courses with an asterisk (\*) are required for an Associate of Science in Network Engineering.*

#### FOUNDATIONAL COURSES

NTS103 Identity Protection and Personal Security

**NTS201 Security Essentials**

NTS305 Information Governance

NTS336 Cloud Security

NTW102 Foundations of Network Engineering

**NTW103\* Fundamentals of Network Engineering**

NTW216 Foundations of Systems Administration

**NTW220 Linux I for Technologists**

**NTW275\* Network Infrastructure Design I**

NTW385 Managing Enterprise Networks

#### SKILLS DEVELOPMENT COURSES

NTS370 Shell Scripting for Technologists

NTW233 IoT Architecture and Security

NTW245 Applied Mobile Computing and Cloud Collaboration Technologies

NTW270 Router and Switch Configuration and Administration

NTW280 Virtualization System Technologies and Administration

NTW320 Directory Services Design and Administration

NTW342 Unix/Linux Systems Administration

NTW375 Network Infrastructure Design II

#### SYNTHESIS COURSES

NTS405 Incident Response

NTS415 Network Defense and Countermeasures

NTW318 Emerging Network Engineering Technologies

NTW325 Network Engineering Certification Preparation

NTW428 The Business of Technology

NTW440 Business Continuity/Disaster Recovery

NTW455 Modern Data Center and Cloud Computing Design and Services

**PDS300 Production Studio I**

**PDS400 Production Studio II**

#### RECOMMENDED ELECTIVES

CSC211 Introduction to Databases

## NETWORK SECURITY

A network security specialist is a professional who focuses on ensuring information confidentiality, integrity and availability. Network security utilizes proactive techniques, including defense-in-depth and layered security, to mitigate or eliminate vulnerabilities in information systems and to protect against potential exploitation. This may include network and application penetration testing, software and hardware reverse engineering as well as developing exploits for identified vulnerabilities. Security professionals possess intimate knowledge of critical business components. The Network Security degree reflects the application of theory and is aligned with industry standards and guidelines. It provides students with the opportunity to synthesize and apply the vital skills and knowledge necessary to succeed in the cyber security workforce.

### NETWORK SECURITY DEGREE OBJECTIVES

1. Create a network infrastructure design communications document that includes identified hardware components, connections to outside world, identified physical layer connectivity (media) and addressing, including operational and security components in the design.

2. Install, configure and test security hardware and software tools with supporting documentation such as port scanners, vulnerability detection systems, intrusion detection systems, firewalls, system hardening, anti-virus tools, patch management, auditing and assessment.
3. Construct, implement and document a script or a program to automate a security-related process or other tasks such as installation, administration, management, mapping resources, logon scripts, patch management, updates, auditing, analysis and assessment.
4. Create a policy or procedure that addresses events such as: a disaster recovery plan, a business continuity plan, an incident response policy, an acceptable usage document, an information security policy, a physical security policy, assessments or troubleshooting procedures.
5. Develop a research report or implementation plan concerning legal and ethical best practices and mandated requirements that pertain to information security.
6. Research, document, test and evaluate several current industry information security based threats, risks, malicious activities, covert methodology, encryption technologies, mitigation techniques or unconventional tactics to prevent loss of sensitive information and data confidentiality, integrity and availability.

### NETWORK SECURITY DEGREE COURSES

*Courses in bold text are required for a Bachelor of Science in Network Security. Courses with an asterisk (\*) are required for an Associate of Science in Network Security. Courses with an obelisk (†) are required for the NSA Cyber Defense designation.*

#### FOUNDATIONAL COURSES

|                 |  |
|-----------------|--|
| <b>CFR101†</b>  | <b>Computer Forensics Essentials</b>         |
| NTS103          | Identity Protection and Personal Security    |
| <b>NTS201*†</b> | <b>Security Essentials</b>                   |
| NTS305          | Information Governance                       |
| NTS310          | Social Engineering                           |
| NTS336          | Cloud Security                               |
| NTW102          | Foundations of Network Engineering           |
| <b>NTW103*</b>  | <b>Fundamentals of Network Engineering</b>   |
| <b>NTW216†</b>  | <b>Foundations of Systems Administration</b> |
| NTW220          | Linux I for Technologists                    |

#### SKILLS DEVELOPMENT COURSES

|                |   |
|----------------|---|
| <b>NTS330†</b> | <b>Applied Exploits</b>                                       |
| NTS350         | Network Security Monitoring                                   |
| <b>NTS370†</b> | <b>Shell Scripting for Technologists</b>                      |
| NTS442         | Collegiate Cyber Defense Competition                          |
| NTW245         | Applied Mobile Computing and Cloud Collaboration Technologies |
| NTW270         | Router and Switch Configuration and Administration            |
| NTW280         | Virtualization System Technologies and Administration         |

#### SYNTHESIS COURSES

|                |  |
|----------------|--|
| NTS405         | Incident Response  |
| NTS415         | Network Defense and Countermeasures                                |
| <b>NTS435†</b> | <b>International and Federal INFOSEC Standards and Regulations</b> |
| NTS465         | Security Evaluation and Assessment Methodology                     |
| NTW440         | Business Continuity/Disaster Recovery                              |
| <b>PDS300</b>  | <b>Production Studio I</b>   |
| <b>PDS400</b>  | <b>Production Studio II</b>  |

#### RECOMMENDED ELECTIVES

|        |                                |
|--------|--------------------------------|
| CFR105 | File Systems and Structures    |
| CFR227 | Malware Detection and Analysis |
| CFR230 | Investigative Techniques       |
| CSC211 | Introduction to Databases      |
| MAT220 | Statistics                     |
|        | Level I programming course     |
|        | Level II programming course    |

## NSA CYBER DEFENSE PROGRAM OF STUDY

The University of Advancing Technology is a designated Center of Academic Excellence - Cyber Defense (CAE-CD) institution through the National Centers of Academic Excellence in Cybersecurity (NCAE-C). Sponsored by the National Security Agency (NSA), NCAE-C operates under national authority as the national manager for cyber defense education and training relating to national security systems. Its programs assure the very finest preparation of professionals entrusted with securing our critical information. The following are the courses students must take if they decide to pursue this program of study:

- CFR101 Computer Forensics Essentials
- NTS201 Security Essentials
- NTS330 Applied Exploits
- NTS370 Shell Scripting for Technologists
- NTS435 International and Federal INFOSEC Standards and Regulations
- NTW216 Foundations of System Administration

## ROBOTICS AND EMBEDDED SYSTEMS

The world we interact in everyday and the technology we utilize are built upon the foundation of embedded systems. The Robotics and Embedded Systems degree provides students the engineering foundation for the design, implementation and analysis of embedded systems, with an emphasis in autonomous robotic systems. Building upon the foundation of software engineering, a degree in Robotics and Embedded Systems can span mechanical design, digital logic design, embedded programming, machine vision, and adaptive algorithm development and design of autonomous robotic systems.

### ROBOTICS AND EMBEDDED SYSTEMS DEGREE OBJECTIVES

1. Design and complete robotic and embedded systems solutions that apply to real-world situations and challenges.
2. Implement a simple microprocessor using digital logic design.
3. Demonstrate embedded system design skills, including, but not limited to, microcontroller selection, schematic design, printed circuit board layout, design for electromagnetic compatibility and design for manufacturing.
4. Apply knowledge of transducers, actuators and simultaneous hardware and software development in the design of an embedded system.
5. Design and analyze real-time embedded systems, including advanced digital logic design, signal processing and high-speed digital systems.
6. Implement and evaluate algorithms and methods enabling autonomy in a mobile robot.

### ROBOTICS AND EMBEDDED SYSTEMS DEGREE COURSES

*Courses in bold text are required for a Bachelor of Science in Robotics and Embedded Systems. Courses with an asterisk (\*) are required for an Associate of Science in Robotics and Embedded Systems.*

#### FOUNDATIONAL COURSES

**CSC102\*** Introduction to Programming  
 CSC215 C/C++ Programming I  
**DBM100\*** 3D Build Tools  
**RBT131** Digital Logic Basic Processor Design  
 RBT205 Mechanics and Materials  
 RBT220 Introduction to Mechanical Concepts

#### SKILLS DEVELOPMENT COURSES

CSC211 Introduction to Databases  
 CSC230 Internet of Things  
 CSC275 C++ Programming II  
 CSC373 Machine Learning  
 CSC382 Data Structures and Algorithms  
 RBT173 Introduction to Microcontrollers  
 RBT211 Arduino Embedded Programming

#### SYNTHESIS COURSES

CSC438 Algorithms, Frameworks and Design Patterns for Artificial Intelligence  
 CSC444 Deep Learning  
**PDS300** Production Studio I  
**PDS400** Production Studio II  
 RBT310 ARM Embedded Programming  
 RBT337 Digital Vision and Sensor Processing

|        |                            |
|--------|----------------------------|
| RBT347 | Robot Navigation           |
| RBT353 | Robotics Competition       |
| RBT431 | Autonomous Aerial Vehicles |
| RBT441 | Autonomous Ground Vehicles |
| RBT479 | Mechatronics               |

#### RECOMMENDED ELECTIVES

|        |                                 |
|--------|---------------------------------|
| CSC318 | Software Engineering Principles |
| CSC370 | Artificial Intelligence         |

## TECHNOLOGY FORENSICS

A technology forensics specialist is an information technology professional who supports the military, corporate, law enforcement and legal communities in the investigation and analysis of digital data. Students in the Technology Forensics degree program will learn methods to obtain and document digital information, determine how information was compromised, trace attribution of malicious code and reverse engineer data to develop mitigations and countermeasures. Graduates from the program will have both the technical skills for recovering evidence and the presentation skills to provide both detailed technical and summary data to interested parties. Above all, this program will focus on learning the highly technical and cutting-edge technologies affecting IT systems today and tomorrow. This program will prepare students to anticipate new and emerging technologies so they can be successful within the rapidly evolving computer forensic environment and the increasingly complex threat landscape.

### TECHNOLOGY FORENSICS DEGREE OBJECTIVES

1. Articulate the complexity of and apply thinking skills to how the network and application infrastructure affects technology forensics investigations and incident response procedures.
2. Identify and apply in a forensics context the various topologies, standards, technologies and protocols employed in computer systems, including file system formats and their attributes.
3. Evaluate, select, and deploy computer forensic measures for the response, mitigation and analysis of a security incident pertaining to digital artifacts and how information was compromised.
4. Analyze and evaluate the current investigative and legal aspects of information and computer forensics including electronic discovery, deposition, litigation and corporate personnel processes.
5. Evaluate and execute the strategies, methodologies, technique, and state-of-the-art forensics tools for the preservation of digital evidence on computer systems, network systems and other electronic devices.
6. Create tracking processes to follow the trail of electronic evidence through digital systems, including documentation, formal reporting and presentation.

### TECHNOLOGY FORENSICS DEGREE COURSES

*Courses in bold text are required for a Bachelor of Science in Technology Forensics. Courses with an asterisk (\*) are required for an Associate of Science in Technology Forensics.*

#### FOUNDATIONAL COURSES

##### **CFR101\*** Computer Forensics Essentials

|        |   |
|--------|---|
| CFR105 | File Systems and Structures               |
| NTS103 | Identity Protection and Personal Security |

##### **NTS201** Security Essentials

|        |                                    |
|--------|------------------------------------|
| NTS305 | Information Governance             |
| NTS336 | Cloud Security                     |
| NTW102 | Foundations of Network Engineering |

##### **NTW103\*** Fundamentals of Network Engineering

|        |                                       |
|--------|---------------------------------------|
| NTW216 | Foundations of Systems Administration |
| NTW220 | Linux I for Technologists             |

#### SKILLS DEVELOPMENT COURSES

|        |                                |
|--------|--------------------------------|
| CFR225 | Operating System Forensics     |
| CFR227 | Malware Detection and Analysis |
| CFR230 | Investigative Techniques       |
| CFR235 | Mobile Device Forensics        |
| CFR315 | Video Forensics                |
| NTS330 | Applied Exploits               |

NTS350 Network Security Monitoring  
 NTS370 Shell Scripting for Technologists

#### SYNTHESIS COURSES

CFR410 Network Forensics  
 CFR420 Advanced Forensics  
 CFR470 Corporate and Business Issues in Digital Forensics  
 NTS405 Incident Response  
 NTS415 Network Defense and Countermeasures  
 NTS435 International and Federal INFOSEC Standards and Regulations  
**PDS300 Production Studio I**  
**PDS400 Production Studio II**

#### RECOMMENDED ELECTIVES

MAT220 Statistics  
 Level I Programming course

## TECHNOLOGY STUDIES

UAT's Technology Studies program provides students an opportunity to explore and combine technologies in an interdisciplinary way. Using the university core and general education as a foundation, students draw from the entire range of technology areas taught at UAT to build a program of study that places technology in the context of entrepreneurship, management and innovation. Students in this program will find new applications for technology as they combine areas such as Cyber, Game Studies, Advancing Computer Science, Robotics and Business Technology in their Foundational, Skills Development and Synthesis coursework. Many paths are possible through this degree resulting in graduates with a broad perspective of how technologies can be combined. In turn, this degree is a foundation for a wide variety of careers, including entry into design and build roles, management, tech entrepreneur and startup ventures.

### TECHNOLOGY STUDIES DEGREE OBJECTIVES

1. Demonstrate the ability to analyze and act on creative and entrepreneurial processes of technological innovation.
2. Demonstrate the ability to forecast and act upon the potential impacts of nascent and emerging technologies in ways that benefit organizations, governments and individuals.
3. Meet four approved objectives from another UAT undergraduate degree program.

### TECHNOLOGY STUDIES DEGREE COURSES

*Students are given the opportunity to explore courses from various programs to view technology from different perspectives. As an interdisciplinary program, it is recommended that students consult with Student Services to build a program of study conducive to their technology interests.*

Students within the Technology Studies major will complete a minimum of 6 credits of production studio coursework drawn from areas of a different technology major.

# GRADUATE DEGREE PROGRAMS

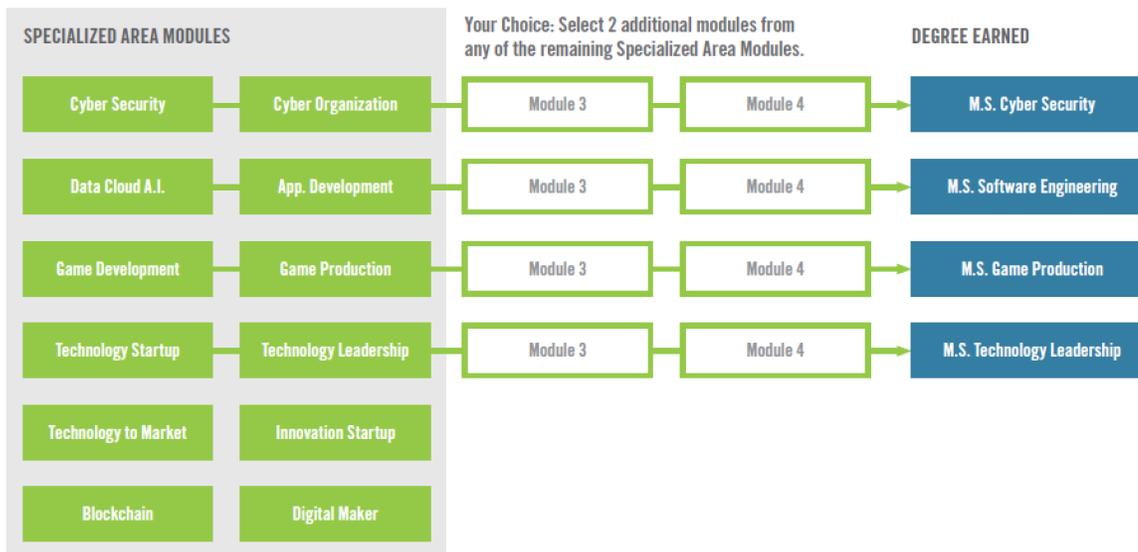
## MASTER OF SCIENCE MAJORS

The University provides within its graduate program an intellectual atmosphere in which a wide range of multidisciplinary technology, research and innovative creations can thrive. The program is designed to allow postbaccalaureate students to rapidly acquire technology skills in applied advancing technology disciplines. Students can enter the program without undergraduate and/or professional experience within the discipline being studied.

Within their disciplines, students gain knowledge in a specialty area: Cyber Security, Game Production and Management, Software Engineering, Technology Innovation or Technology Leadership. The graduate degree program is comprised of four, nine-credit modules. In addition to two degree-specific modules, graduate students select two additional modules based on their areas of interest and career objectives.

### MASTER OF SCIENCE (MS) DEGREE REQUIREMENTS

|   |    |
|---|----|
| Required Specialized Area Modules (degree specific) | 2  |
| Additional Specialized Area Modules                 | 2  |
| Semester Credits per Module                         | 9  |
| Minimum Total Semester Credits                      | 36 |



Your Choice: Select any 4 Specialized Area Modules.



## GRADUATION REQUIREMENTS

1. Successful completion of an approved program of study, including the minimum number of required modules.
2. Successful completion of the minimum credits required by UAT's accrediting body for the desired degree.
3. Meet minimum cumulative GPA of at least 3.0/4.0.
4. Submittal of a completed and approved Application for Degree with the Office of the Registrar.
5. Completion of Graduate Student Innovation Project (G-SIP) and Boards requirements. G-SIP and Boards requirements include the submission and review of both digital and physical artifacts to demonstrate the student's capabilities within the discipline being studied.

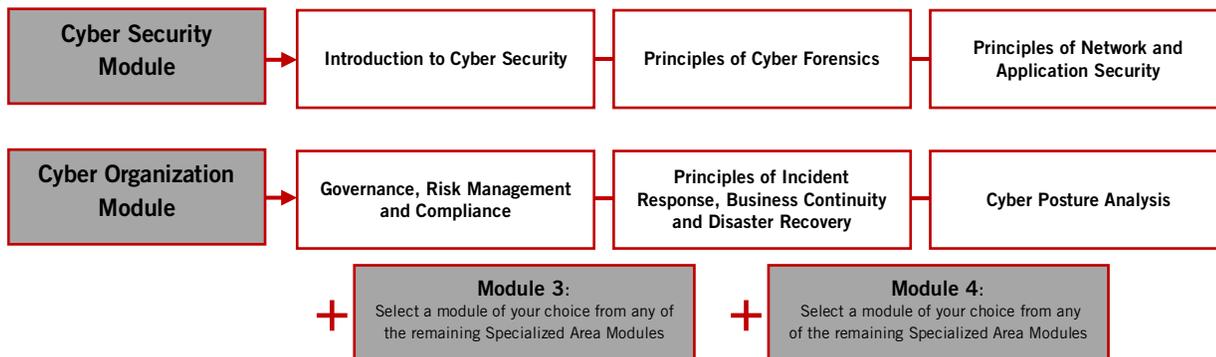
## DEGREES

### CYBER SECURITY

The Cyber Security Master's Degree program focuses on skillsets that will enable students to design, secure, document and lead information technology networks and other vital resources. Students will learn and practice principles of secure network and information operations such as cyber posture assessment and development, incident response and forensics. Prior knowledge of networks and information systems are not required. Cyber concepts will begin at a ground zero level intro to Cyber Security and develop to prepare students to lead comprehensive information security approaches that ensure organizational system designs, infrastructure and procedures all protect the security of information.

#### CYBER SECURITY DEGREE OBJECTIVES

1. Understand organization's security strategy through the design, appraisal, and management of an organization's global security strategies and systems to mitigate risk, maintain continuity of operations, and protect organizational assets.
2. Develop, coordinate, and manage all information security-related policies, practices and processes, including information technology, physical security, regulations, initiatives, and standards consistent with a global business strategic plan and corporate business requirements.
3. Implement technology and processes to effectively capture evidence and perform cyber forensic analysis in support of organizational needs.
4. Consider business strategies and potential attackers (hacker) approaches, manage safeguards for organizational assets, systems, and facilities including information security audits, business continuity, incident response and the investigation of security breaches in accordance with regulations and legal matters.
5. Research and deploy technology solutions and security management techniques to safeguard an organization's intellectual and physical assets while assuring that all information systems are functional and secure.
6. Project the integration of future trends and technologies into cybersecurity frameworks.



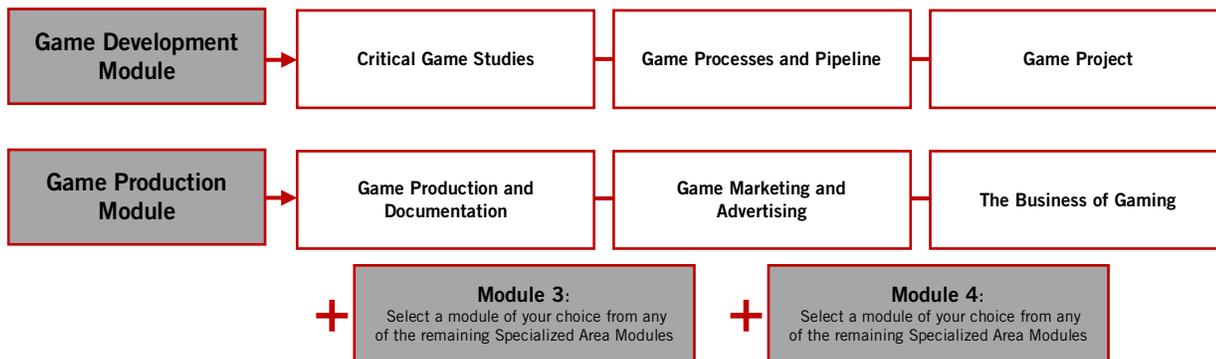
### GAME PRODUCTION AND MANAGEMENT

The Game Production and Management Master's Degree program offers students the opportunity to develop skills to analyze and produce complete works in the electronic gaming arena. Utilizing the production studio experience, students will move through curriculum designed to build leadership and production skills applicable to the gaming industry allowing them to implement and maintain complete production pipelines. In addition, students will have the opportunity to evaluate recent trends in game technology, from critical studies to emerging genres and platforms. The curriculum will provide students with the background and experiences needed to navigate the game industry and lead an effective production team in entertainment or game development.

#### GAME PRODUCTION AND MANAGEMENT DEGREE OBJECTIVES

1. Lead a project team in implementing design, documentation, development, testing, Q/A and deployment.
2. Develop analytical and management skills needed to successfully complete game projects.
3. Analyze and critique the trends in game design and game technology and how they affect game projects.
4. Develop all of the materials needed to market a game project including advertising, marketing, branding, and social media.
5. Create an innovative work that adds to the field of game design and development.

6. Establish collaboration, mentorship, and professional leadership skills by working with other disciplines to deliver highly polished and completed projects.

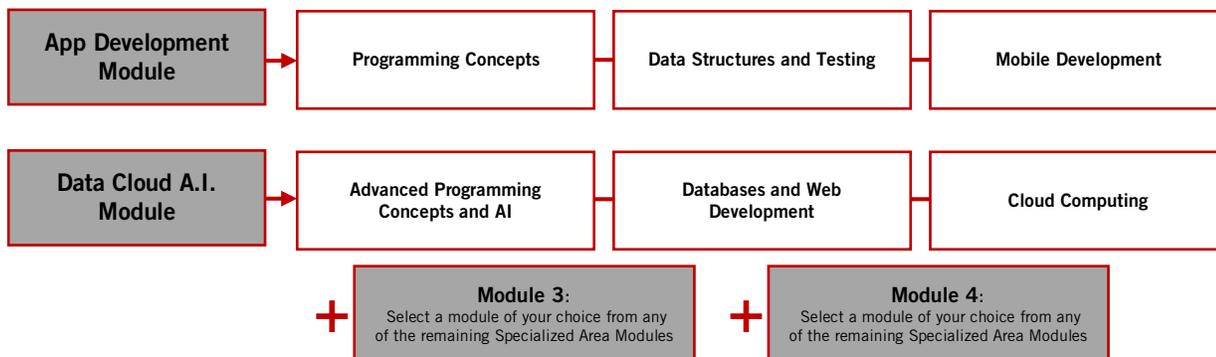


## SOFTWARE ENGINEERING

The Software Engineering Master's degree prepares students to identify and build secure market-ready applications and software solutions using leading development environments, databases, platforms and approaches. Students experience evolving software, from mobile application to cloud resources to secure coding and agile practices. This program requires intelligence, commitment, starting at baseline knowledge and accelerating to a high-level through guided and self-directed practice. Students with and without prior development experience will learn how to develop, test and deploy software applications.

### SOFTWARE ENGINEERING DEGREE OBJECTIVES

1. Develop and test algorithms, strategies, and methodologies to design, develop, and test software systems.
2. Leverage the strengths of multiple programming languages and database integration in software development.
3. Apply advanced development tools and methods to create software solutions for multiple platforms.
4. Analyze, select, and implement appropriate professional software development paradigms such as Agile and unit testing to software projects.
5. Utilize professional software development tools and libraries for application and app development.
6. Design, implement, and have the knowledge to publish mobile applications.



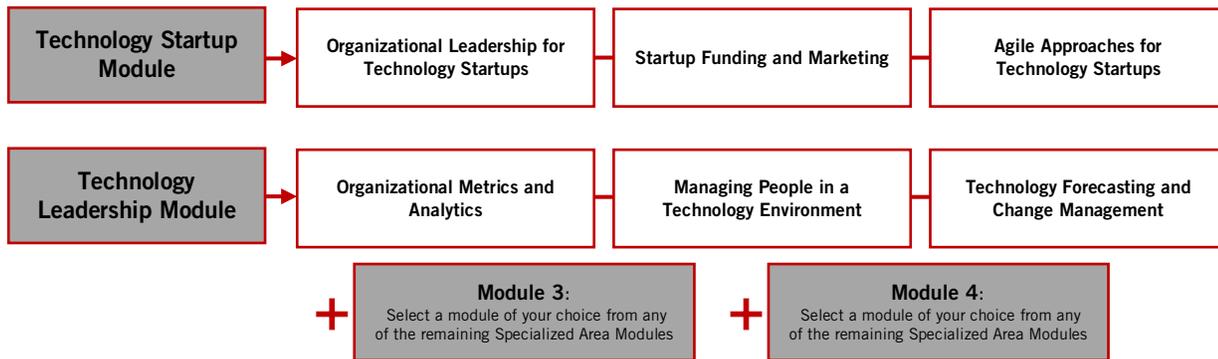
## TECHNOLOGY LEADERSHIP

Knowing how to launch a new technology enterprise is a skillset that takes advantage of the current techscape where a startup company is the norm. Technology Leadership offers the skills needed by startup founders and engineers as they create, resource and grow entrepreneurial entities that deliver technology products. Students will train as startup leaders who learn the growth stage, legal, operational, finance, sales, development and crowd tools in use by small companies launching their ideas. These concepts are learned in real-world scenarios as students go through the steps and interact with startup communities while preparing their ideas for market.

### TECHNOLOGY LEADERSHIP DEGREE OBJECTIVES

1. Cultivate the personal leadership capacity needed to guide technology startups.

2. Demonstrate ability to assemble and resource a mission-aligned startup organization capable of delivering and growing new technologies.
3. Demonstrate capacity to apply lean/agile approaches towards market analysis and product development within changing technology landscapes.
4. Demonstrate knowledge of operational elements (finance/funding, legal, operations, resources, marketing, engineering) within technology startups.
5. Demonstrate competency in building and leading technology and entrepreneurial teams.
6. Generate metrics and visuals using analytical data for use in decision making.



## TECHNOLOGY INNOVATION

Innovation frequently involves an interdisciplinary perspective that uses the intersections between different areas as the conceptual beginning of new technologies. Software Engineering, Cyber Security, Game Production, Technology Leadership, Digital Maker, Blockchain, Innovation and to Market provide a broad palette of technology topics to be combined while seeking opportunities and solutions to world and business challenges. The MS in Technology Innovation allows students to pursue an academic path blending the topic modules of other UAT graduate programs leading to the creation of an innovative capstone solution. Students studying in this area select any four graduate modules to create a cross discipline basis for the innovation that they will ultimately develop and present as their GSIP.

### TECHNOLOGY INNOVATION DEGREE OBJECTIVES

1. Analyze and act on creating an entrepreneurial venture harnessing technological innovation by assembling resources, market research and utilizing expert opinions.
2. Cultivate innovation by establishing a clear vision statement and applying leadership practices.
3. Forecast potential innovations of existing technology and emerging technology fields and demonstrate how they will benefit organizations, governments and individuals.

Program objectives for the Technology Innovation graduate degree are derived from the other UAT graduate degree modules. Objectives will be determined based upon the coursework that graduate students within their selected modules. Students in this program will identify 3 of the published objectives associated with UAT graduate program modules that they completed and be assessed on their attainment of these objectives.

## ADDITIONAL SPECIALIZED AREA MODULES

### TECHNOLOGY TO MARKET

Technology to Market provides knowledge and skills associated with taking startup concepts and products within technology spaces and bringing them to market. Key areas covered include agile and lean development processes, leading startup entities, accessing startup ecosystems, finance strategies for new enterprises and startup development cycles.



## INNOVATION STARTUP

Innovation Startup is designed to provide graduate students resources and experiences that allow them to develop a technology product. Focus will be on engaging in agile development using incubation and makerspace resources. Throughout the experiences, students will interact with other technology product developers, using them as resources while building a network within the startup ecosystem.



## BLOCKCHAIN

Blockchain represents a compelling technological approach toward providing secure records and transactions within a global world. At a genetic level, Blockchain approaches are designed to be highly distributed, encrypted and based upon open source technologies with transparent verification of ledgers. These elements make Blockchain a compelling approach for applications such as digital contracts, transactions, currency, identification, records and voting. As a solution to complex applications, Blockchain technology is in a rapidly evolving state. Coursework in this module presents the Blockchain architecture, principles and algorithms. Students learn to code Blockchain applications while studying its advancing trends and working within sandboxes to create prototype solutions. Requires successful completion of App Development module.



## DIGITAL MAKER

Maker tools create the capacity for technology product designers to convert ideations into designs and subsequently rapidly evolve them. In an accelerating manner, these tools are providing more diverse capacities while simultaneously becoming more accessible to product designers, technology organizations and manufacturing entities. The Digital Maker module trains on the applications of current slate of tools associated with maker-style prototyping and gives students direct exposure to using them. Students will create prototypes while learning agile approaches to technology product design. By repeated practice of building, students will hone their ability to make material choices along with properly matching maker space tools to prototype applications.



# ADMISSIONS POLICIES

## ADMISSIONS POLICIES

All UAT applicants are strongly encouraged to complete the application/enrollment process well in advance of class start dates.

### APPLICATION

An application for admission must be completed and submitted to the UAT Office of Admissions prior to consideration. Contact the UAT Office of Admissions for the necessary form or complete the online application at [uat.edu/apply](http://uat.edu/apply).

### Steps to Apply for Acceptance:

1. Complete the application and send it to University of Advancing Technology, 2625 West Baseline Road, Tempe, AZ, 85283-1056, USA, fax it to (602) 383-8222 or submit it electronically through our website at [uat.edu/apply](http://uat.edu/apply).
2. To determine if applicants meet the requirements set forth by the University's acceptance criteria, completed applications are forwarded to the Office of Acceptance.
3. Applicants are granted Acceptance, Conditional Acceptance or applicants are Denied.
4. Acceptance to the University does not guarantee admission. Please refer to admissions requirements.

### Acceptance

Acceptance is awarded to applicants who have provided sufficient evidence of high school graduation or equivalent for the Office of Admissions, such as through official High School transcripts, GED battery score and/or ACT/SAT scores that have all been verified. Students are eligible to apply beginning in their sophomore year of high school, and for those applicants that are still enrolled in high school, they can submit their unofficial high school transcripts for verification.

### Denied

Denied applicants who did not meet the University's acceptance requirements may be eligible to re-apply.

### THREE-DAY CANCELLATION POLICY

An applicant who provides written notice of cancellation within three days (excluding Saturday, Sunday and federal and state holidays) of signing an enrollment agreement is entitled to a refund of all monies paid. No later than 30 days of receiving the notice of cancellation, the school shall provide the 100% refund.

### HOME SCHOOLED STUDENTS

University of Advancing Technology welcomes students from all types of educational backgrounds and encourages home schooled students to apply. Due to the diverse nature of home school requirements from state to state, UAT requires the following materials in order to evaluate a student's academic history for acceptance:

- > Transcripts from a nationally recognized and accredited home school program
- OR
- > Detailed home school transcripts (course titles, brief description of each course content, a grade or performance assessment for each course, details on duration of study and expected graduation date) and a second academic indicator such as the SAT, ACT, GED or College GPA (Where 12 or more credits were completed at a single institution)

Please keep in mind that in order to attend at the University, applicants need to demonstrate completion of the equivalent of high school. Home schooled students need to submit documents indicating that they've followed the regulations determined by their State. Other forms of proof of high-school equivalency will be considered on a case-by-case basis, but should be approved in advance by contacting the Office of Admissions at [admissions@uat.edu](mailto:admissions@uat.edu).

### UNDERGRADUATE ADMISSIONS REQUIREMENTS—US CITIZENS

University of Advancing Technology strives to admit students who embody our passion for technology, are a cultural match to our University, demonstrate adequate academic achievement and have a dedication to lifelong learning. All undergraduate applicants are evaluated based on these criteria: academic history and achievements, personal expression, desire to attend UAT, how they might fit within UAT's geek-friendly culture, passion and aptitude for technology and the supportiveness of applicant's network of family, friends and peers to achieve their educational goals (for UAT-Online applicants, employer support is also evaluated).

All applicants are required to have a high school diploma or equivalent to begin classes at UAT.

All applicants are encouraged to submit high school transcripts, ACT and/or SAT, Advanced Placement scores and college transcripts so that UAT's Office of Admissions may thoroughly review the applicant's academic history.

### **UNDERGRADUATE ADMISSIONS REQUIREMENTS—NON-US CITIZENS**

If an applicant is not a citizen of a nation where English is the official language, then he or she must provide proof of English proficiency. Documentation of any of the following will show proficiency:

1. Test of English as a Foreign Language (TOEFL) with a score of:
  - a. 550 or higher on paper-based test
  - b. 80 or higher on Internet-based test
  - c. 213 or higher on computer-based test
2. Pearson Test of English (PTE) score of 53 or higher.
3. Successful completion of Level 112 from an ELS Center.
4. Attendance for one year at an accredited US college or university and completion of English 101 (or equivalent) with a grade of C or better.
5. International English Language Testing System (IELTS) score of 6.0.
6. Test of English for International Communication (TOEIC) score of 760.

One of the above must be satisfied for consideration. Proof of English proficiency is not required if English is the applicant's native language.

All Official transcripts must be submitted with an English translation. In order to determine that a student has received the equivalent of a US High School Diploma or a US Bachelor's degree, UAT may request that official transcripts be evaluated by Educational Credential Evaluators, Inc., P.O. Box 17499, Milwaukee, WI, 53217-0499, USA ([www.ece.org](http://www.ece.org)) or another outside agency.

Federal law requires mandatory health insurance coverage for all international students studying in the United States. All international students will be automatically enrolled into a university-sponsored health insurance plan during the matriculation phase. A \$550 health insurance deposit is required and assessed for each student to cover the initial coverage period and enrollment. Students will be billed accordingly for insurance fees each semester and are required pay in full. UAT reserves the right to rescind or adjust coverage at any time.

If a student has pre-existing or third-party coverage consistent with University requirements, they are exempt from this policy. UAT reserves the right to verify benefits and coverage periods with each student and/or sponsor.

### **Undergraduate Admission**

Prior to matriculating to UAT, an official high school diploma from an accredited institution recognized by the US Department of Education or equivalent must have been earned. In addition, all required enrollment forms must be completed and a deposit on file with the University.

### **GRADUATE ADMISSIONS REQUIREMENTS—US CITIZENS**

University of Advancing Technology strives to admit students who embody our passion for technology, demonstrate adequate academic achievement and have a dedication to lifelong learning. All Graduate students must have a bachelor's degree from an accredited institution. The Graduate Admissions Committee evaluates the student as a whole and strives to admit students who embody the university vision and values. The committee evaluates all applicants based on their academic achievement, leadership, experience, research aspirations, professional accomplishments and community involvement. The committee may identify deficiencies that an applicant should remedy, including training on specific software or additional undergraduate coursework. The Graduate Admissions Committee may waive one or more of the required materials or standards based on the strength of an applicant's preparation.

### **GRADUATE ADMISSIONS REQUIREMENTS— NON-US CITIZENS**

If an applicant is not a citizen of a nation where English is the official language, then he or she must provide proof of English proficiency. Documentation of any of the following will show proficiency:

1. Test of English as a Foreign Language (TOEFL) with a score of:
  - a. 600 or higher on paper-based test

- b. 92 or higher on Internet-based test
- c. 213 or higher on computer-based test
- 2. Pearson Test of English (PTE) score of 60 or higher.
- 3. Successful completion of Level 112 from an ELS Center.
- 4. Attendance for one year at an accredited US college or university and completion of English 101 (or equivalent) with a grade of C or better.
- 5. International English Language Testing System (IELTS) score of 6.5.
- 6. Test of English for International Communication (TOEIC) score of 760.
- 7. Completion of a bachelor's degree or equivalent from an institution where the medium of instruction was English.

One of the above must be satisfied for consideration. Proof of English proficiency is not required if English is the applicant's native language.

All official transcripts must be submitted with an English translation. In order to determine that a student has received the equivalent of a US High School Diploma or a US Bachelor's degree, UAT may request that your official transcripts be evaluated the Educational Credential Evaluators, Inc., P.O. Box 17499, Milwaukee, WI, 53217-0499, USA (<http://www.ece.org>) or another outside agency.

Federal law requires mandatory health insurance coverage for all international students studying in the United States. All international students will be automatically enrolled into a university-sponsored health insurance plan during the matriculation phase. A \$550 health insurance deposit is required and assessed for each student to cover the initial coverage period and enrollment. Students will be billed accordingly for insurance fees each semester and are required pay in full. UAT reserves the right to rescind or adjust coverage at any time.

If a student has pre-existing or third-party coverage consistent with University requirements, they are exempt from this policy. UAT reserves the right to verify benefits and coverage periods with each student and/or sponsor.

### **Graduate Admission**

Prior to matriculating to UAT, a bachelor's degree from an accredited institution recognized by the US Department of Education or equivalent must have been earned. In addition, all required enrollment forms must be completed and a deposit on file with the university.

### **INTERNATIONAL COURSE EXPECTATION**

International students seeking to attend UAT on-campus indicate a desire during their visa application process to experience the interpersonal interactions that are found within on-site learning. UAT values the benefits that international students receive when interacting directly with other students and faculty during their education. UAT requires that international students attend all of their courses on-campus. International on-campus students may not take online courses.

### **INTERNATIONAL VISA**

UAT takes no responsibility for managing international visas. This responsibility falls to the international students.

### **TRANSFER CREDIT FOR PREVIOUS EDUCATION**

The University actively seeks to recognize college-level academic work completed by its enrolling students at Department of Education-recognized accredited institutions and Council for Higher Education Accreditation (CHEA)-recognized accredited institutions. All previous coursework must be completed prior to attending UAT to be considered for possible transfer credit. Transfer credit may be awarded for previous college-level courses that a student has successfully completed up to sixty (60) undergraduate credit hours toward a bachelor's degree from a two-year institution, up to ninety (90) undergraduate credit hours toward a bachelor's degree from a four-year institution, thirty (30) undergraduate credit hours toward an associate's degree and fifteen (15) graduate credit hours toward a master's degree.

The following restrictions apply: A maximum of 90 credits may be transferred from any combination of two- and four-year institutions. Transfer credit will only be approved for courses that apply to a student's program of study. Students must have attained a grade of C (2.0) or better in undergraduate coursework for credits to be awarded. Graduate-level coursework will be evaluated on an individual basis; credit for electives is limited but direct equivalents will be maximized. No credit will be awarded for any courses worth less than one credit hour or courses with sub-100-level course codes.

The University is willing to review credit for all courses previously taken that qualify, based on the policy restrictions and requirements. However, core courses over ten years old undergo a more in-depth analysis due to changes in current technology to ensure the prior coursework is still relevant and applicable to the current program.

Previous academic coursework and test scores are evaluated by the University upon submittal of unofficial or official college transcripts. It is the student's responsibility to request official transcripts to be sent to the Registrar. Students may use the College Transcript Request document, which can be downloaded in PDF form on the Intranet or requested from the Office of Admissions. Although unofficial transcripts may be used to generate a Transcript Credit Evaluation, official transcripts from all previously attended institutions from which credit was awarded must be on file with the Registrar prior to the end of the student's first semester at UAT. Students will be notified via email of the results of their evaluations. Credits will not be made official until the student has enrolled. A one-time transfer credit fee of \$100.00 will be charged to the student's account. Students who switch to another degree program or re-enroll may have a re-evaluation of previously awarded transfer credits if the credits were earned prior to the student's original start date. Please refer to the Re-Entry and Degree Change sections for more information.

Grade point averages will be computed based only on grades received for courses completed at University of Advancing Technology. Transfer credits will be awarded at the discretion of the University.

### **Veterans Administration Transfer Credits**

Every veteran who applies for educational benefits through the University must provide official copies of academic transcripts from all previously attended institutions for evaluation. Veterans must follow the guidelines for applying for transfer credit outlined in the Transfer Credit for Previous Education section. Enrollment certification will not be completed and sent to the US Veterans Administration (VA) until this step is accomplished. The VA has ruled that all prior education at the post-secondary level must be evaluated by the University and transfer credit granted for applicable courses. University of Advancing Technology will follow the regulations regarding the certification of veterans in compliance with the VA.

### **Other Transfer Credits**

Transfer credit can be obtained from:

- > Advanced Placement (AP) exams with a score of 3.0 or better
- > International Baccalaureate (IB) exams with a score of 5 or better
- > ACE-approved military coursework
- > College Level Examination Program (CLEP) exams
- > Defense Activity for Non-Traditional Education Support (DANTES) or DANTES Subject Standardized Tests (DSST) exams
- > Most industry certifications (i.e., Microsoft Corp., Cisco Systems Inc and Computing Industry Technology Association (CompTIA))

### **Study Abroad**

Students who arrange for and receive prior approval from the UAT Registrar may enroll in a program of study abroad and will be considered as enrollment at the home institution or UAT for the purpose of applying for Title IV and HEA programs.

### **Transferring to Other Institutions**

In order to transfer college credit to another institution, a student must submit an application to that institution and follow its guidelines. Each institution has its own rules and standards governing the transfer of credit; thus, University of Advancing Technology cannot make any assurances that any other institution will accept its credits or degrees.

### **START DATES**

Visit [www.uat.edu/academic-calendar](http://www.uat.edu/academic-calendar) and [www.uat.edu/online-academic-calendar](http://www.uat.edu/online-academic-calendar) for a complete list of start dates.

### **MILITARY POLICY**

University of Advancing Technology recognizes the service, dedication and sacrifices made by the men and women serving our nation in the United States armed forces.

As a military friendly university, UAT extends all courtesy and cooperation as US servicemen and women are deployed for duty. UAT Student Services and Financial Aid coordinators assist our US military students through the process of obtaining the time away from classes and options to resolve any account balance on a case-by-case basis.

## RE-ENTRY

Withdrawn individuals wishing to return to the University may do so by re-applying for acceptance. Re-entry students (students who have previously withdrawn or been withdrawn from the University) are subject to meeting all admissions criteria prior to being accepted. Additionally, all re-entry applicants must have met Satisfactory Academic Progress at the time of their withdrawal from the University and must also be in good financial standing with the University to be considered for re-entry. Applicable admission fees are charged each time a student enrolls at the University. All initial transfer credit evaluations must be completed by the first semester of an applicant's first enrollment at UAT. Any credits earned between enrollments may be submitted to the University for evaluation of transfer credit and will be awarded at the University's discretion. All transcripts must be submitted for evaluation prior to re-entry in order to receive consideration of transfer credit.

Students choosing to re-enter, who have had more than 180-days pass since their last day of attendance at UAT, will be charged the published tuition rate at the time of their most recent enrollment agreement. Students choosing to re-enter on or before 180-days since their last day of attendance at UAT will be charged the tuition rate of their previous enrollment.

### Reenrollment Seat Deposit Policy

Any student that plans to reenroll at UAT through the re-entry process will not be required to pay an additional seat deposit.

### Alumni Advancing Degree Policy

UAT Alumni wishing to advance into their next degree program are not required to pay a seat deposit prior to enrolling. This applies to students who have received an associate degree and are enrolling into a bachelor's program, students who have received a bachelor's degree and are enrolling into a master's program, students who have received a bachelor's degree and are enrolling into another bachelor's program, as well as students who have received a master's degree and are enrolling into an additional master's program.

## TUITION POLICIES

Current tuition fees can be found at [www.uat.edu/tuition](http://www.uat.edu/tuition)

### PAYMENT

#### Payment From US Residents

Arrangements for payment of tuition, housing, resources and fees must be made before the first day of class. For charges of tuition and fees not covered by Federal Title IV Student Financial Assistance, payment must be made to the Office of the Bursar no later than 10 calendar days after the start of the semester. A student with a balance at the end of a semester may be subject to withdrawal. Payment can be made on the UAT Intranet by credit or debit card, by check, money order or by calling (480) 351-7885. Degrees, diplomas, certificates, and transcripts will be withheld until all tuition/fees are paid in full.

#### Payment From Non-US Residents

Arrangements for the non-refundable seat deposit of \$250, non-refundable deposit of \$550 towards the cost of insurance and the \$1,000 refundable advanced tuition deposit are due by the 15th day of the month prior to the semester start date.

Arrangement for payment of all remaining balances for tuition, housing, resources and fees must be made before the first day of class. Students failing to do so are subject to the termination of their student I-20. Payment can be made on the UAT Intranet by credit or debit card, check, money order or by calling (480) 351-7885. Degrees, diplomas, certificates and transcripts will be withheld until all tuition/fees are paid in full.

#### Military/Veteran Tuition Policy

In order to support its military/veteran students, University of Advancing Technology (UAT) allows Veteran students utilizing related federal benefits special consideration relating to tuition charges when a military student requests a leave of absence (LOA) or student initiated withdrawal. This consideration will eliminate, prorate or postpone their tuition according to VA money received.

Veterans are responsible for understanding their military education benefits and keeping track of their tuition and fees, UAT account balance and VA payments.

UAT is a proud military friendly university. As an expression of the University's admiration and appreciation of your service, we offer a special undergraduate active-duty military tuition rate. Active duty military students participating in the DoD Tuition Assistance (TA) Program that choose to pursue their degree online, may earn up to nine credits per semester, at a discounted tuition rate of \$5,000 per semester.

## REFUND POLICY

Upon a student's withdrawal from University of Advancing Technology (UAT), tuition is refunded according to the number of days attended after the start of classes. Students may not use drop/add to withdraw from school. Students must fill out withdrawal paperwork in order to withdraw from the University. The University withdrawal form is located on the Intranet, or students may make an appointment with Student Services to fill out this form.

Students withdrawing from school receive a refund as follows:

| <b>Withdrawal Date After the Start</b>                 | <b>Tuition Refund</b> |
|--|-----------------------|
| 1 through 7 calendar days from the beginning of term   | 100%                  |
| 8 through 13 calendar days from the beginning of term  | 86%                   |
| 14 through 20 calendar days from the beginning of term | 73%                   |
| 21 through 26 calendar days from the beginning of term | 60%                   |
| 27 through 32 calendar days from the beginning of term | 46%                   |
| 33 through 38 calendar days from the beginning of term | 33%                   |
| 39 through 44 calendar days from the beginning of term | 20%                   |
| 45 through 49 calendar days from the beginning of term | 6%                    |
| After the 49th calendar day from the beginning of term | No refund             |

The Withdrawal Date is defined by the withdrawal policy. All refunds are calculated on the basis of a fifteen (15) week semester regardless of individual course length or course start date. Additionally, students will be billed by the Office of the Bursar for any balance remaining after earned financial aid is applied to tuition charges.

For all students that fail to complete the official withdrawal process, or notify the institution of their intent to withdraw, the student's withdrawal date will be the midpoint of the term/semester or the last date of attendance at a documented academically related activity, whichever is later.

## RETURN OF TITLE IV FUNDS

Federal Student Aid (FSA) funds are awarded to a student under the assumption that the student will attend school for the entire period for which the assistance is awarded.

When a student withdraws, the student may no longer be eligible for the full amount of FSA funds that the student was originally scheduled to receive. If a recipient of FSA grant or loan funds withdraws from the school after beginning attendance, the amount of FSA grant or loan assistance earned by the student must be determined. If the amount disbursed to the student is greater than the amount the student earned, unearned funds must be returned.

Up through the 60% point in each payment period, a pro-rata schedule is used to determine the amount of FSA funds the student has earned at the time of withdrawal. After the 60% point in the payment period, a student has earned 100% of the FSA funds he or she was scheduled to receive during the period. For a student who withdraws after the 60% point-in-time, there are no unearned funds.

## FINANCIAL AID AND VETERANS' ADMINISTRATION BENEFITS

The Office of Student Financial Aid is committed to helping students through the entire financial aid process and assisting students in developing a financial plan that best suits their family's needs. To that end, the University participates in the federal Veterans Education Benefits program and the following federal Title IV student aid programs: Pell Grant, Supplemental Educational Opportunity Grant, Work Study, Stafford Loan (for students) and PLUS Loan (for parents). The University also works with private loan lenders to assist students in meeting their educational expenses.

Questions concerning financial assistance programs, consumer information and requests for financial aid forms may be addressed to the Office of Student Financial Aid by calling (480) 351-7857 or (800) 658-5744, or emailing [FA@uat.edu](mailto:FA@uat.edu). Financial aid forms and related information are also available at [uat.edu/fa](http://uat.edu/fa).

**DISBURSEMENT OF TITLE IV FUNDS**

In accordance with the Higher Education Act (HEA) as amended, any Title IV or HEA program funds received by University of Advancing Technology (UAT) will be disbursed to the eligible student's tuition account by the third business day following the receipt of funds. Should a student be deemed ineligible for said funds, those monies will be returned promptly to the source program or lender.

In accordance to U.S. Department of Education requirements, Title IV, HEA loan information for students and parents will be submitted to the National Student Loan Data System (NSLDS) which is accessible by guaranty agencies, lenders, and schools determined to be authorized users of the data system.

**VETERANS' CERTIFICATION OF ENROLLMENT POLICY**

The University's School Certifying Official will certify student Veterans' attendance with the Veteran's Administration (VA) every semester at the written request of the student Veteran through a Request of Benefits (ROB) form. This certification process is designed to satisfy the VA's objective of paying benefits only to eligible student Veterans in an acceptable enrollment status.

**OFFICIAL DOCUMENTS**

All Title IV funding is determined upon receipt of official transcripts and documents.

# UNIVERSITY POLICIES FOR ALL STUDENTS

The University recognizes that all policies, procedures and programs are dynamic. Policies in this catalog represent the University's approved student policies. University of Advancing Technology (UAT) makes every effort to be consistent in its policies, procedures, documents and actions. The policies outlined in this catalog supersede policies listed in any previous catalog. In any case where conflicting statements occur between the official University catalog and another official publication, such as a previous year's catalog, the catalog statement in the most recent version will take precedence. The only exception to this rule is the publication of a special supplement or addendum to the catalog. The electronic version of the catalog at [uat.edu/Catalog](http://uat.edu/Catalog) incorporates the most recent supplement or catalog addendum within the body of the electronic catalog.

For each student entering a program at the University, graduation requirements are determined by the catalog under which the student enrolled. Policies governing the University and its student population are published in the catalog in its printed and electronic versions.

## ACADEMIC POLICIES

### **FACULTY**

Visit [www.uat.edu/faculty](http://www.uat.edu/faculty) for a complete list of faculty and more information.

### **REGISTRATION**

Students may register for classes during any University-sponsored registration period for which they are eligible. Students are required to maintain full-time status at the University. Registration for a semester begins on week nine of the prior semester and closes at 5 p.m. MST on the last day of drop/ add period.

Students taking online, 7.5 week and graduate classes will be pre-registered by the end of the semester for the upcoming semester's block of courses.

### **ATTENDANCE**

Students are expected to attend and actively engage in all class activities and learning methodologies to obtain the full benefit of University of Advancing Technology (UAT) educational experience.

### **DROP/ADD**

Students may drop and/or add courses within the first five (5) business days of the course in order to meet academic requirements and ensure successful completion of a program of study. A student who wishes to drop or add a course must use the registration tool located on the University of Advancing Technology (UAT) Intranet to complete the request. Graduate students and students taking online or 7.5 week courses who wish to drop or add a course must contact Student Services. Students who do not register by the end of the drop/add period will be withdrawn from the University. Additions to the semester load may not exceed the maximum course load allowed. A student may not use this process to register for less than full-time enrollment. If a course is dropped prior to the fifth class day, the course will be deleted from the student's permanent record. Students may not drop all classes in order to withdraw from the University. Students wishing to withdraw from the University must follow the University's withdrawal procedures. Tuition and refunds for withdrawing students are based on the withdrawal policy and not based within the drop/add policy.

### **INDIVIDUAL COURSE CANCELLATION**

Courses are occasionally canceled at the University for a variety of reasons including minimal enrollments, faculty availability or resource needs. If a course is canceled, academic advisement is provided to students on how to amend their program of study to meet academic goals. Although University of Advancing Technology (UAT) will provide notifications of closures or time changes as far in advance of a course start date as possible, it is the student's responsibility each semester to verify their course schedule in preparation for the first day of class.

### **INDIVIDUAL COURSE WITHDRAWAL**

Students can request individual course withdrawal from 15 week courses after the drop/add period and by 5pm MST on the last day of week 10. Students can request individual course withdrawal from 7.5 week courses after the drop/add period and by 5pm MST on the last day of week 5. Students can request individual course withdrawal from 5 week courses after the

drop/add period and by 5pm MST on the last day of week 3. Undergraduate on-campus students may not withdraw to less than 6.0 active credits within a semester. Financial Aid eligibility may be impacted by any reduction to less than full-time.

### **REPEATED COURSES**

With repeated courses, the University will use the highest grade achieved by the student in the computation of the grade point average. Both the original attempt and the repeated attempt's grade will remain on the student transcript. The University will count a repeated course toward full-time enrollment status and certain funding sources when a student is repeating a previously passed course for the first time only (i.e., one repetition per course).

### **INCOMPLETE**

A student who, for documented reasons beyond their control, has been unable to complete all work for a course(s) may be granted the grade of incomplete (I). A student must have earned a grade of at least 50% in the course in order to request an incomplete. Incomplete requests must be submitted no later than 5 p.m. MST on the last day of the class in order to be considered. Incompletes may stay on a student's academic record a maximum of five weeks, during which time the student may coordinate the submission of work designed to finalize the course with the instructor. Students can request additional information from Student Services. Incompletes not resolved by the end of five weeks will be reversed to the original computed grade. I grades are not applicable to SIP408, SIP409, SIP410, SIP411 courses.

### **CHANGING DEGREE PROGRAMS**

The University understands that students may discover that the degree program they originally began may not truly address the student's desire for lifetime career goals and future endeavors. Therefore, the University will allow students to change degrees.

The Degree Change Form, as well as academic advisement, will be provided by Student Services. Students may submit the Degree Change Form at any point during their program. However, depending on course availability, the effective date on the change may be aligned with the next semester period. Students must consult with Student Services regarding the impact of a degree change on their program of study before, or in conjunction with, submission of a Degree Change application form. Students should also consult with financial aid regarding impact on funding eligibility. Students will remain under the original catalog year they enrolled, provided they remain continuously enrolled at University of Advancing Technology (UAT). Students who wish to change to a degree that was not offered during their original catalog year must change their catalog year to the most current catalog in order to make the change. Students who have been awarded transfer credit from a previous institution should also refer to the Transfer Credit for Previous Education Policy.

### **MULTIPLE DEGREE POLICY**

Pursuit of a second degree can increase breadth of knowledge and specialization. Students pursuing a concurrent second degree must officially declare their intent to do so with Student Services to plan their program of study for both degrees. A student must submit appropriate documentation after consulting with Student Services and fulfill the graduation requirements for each degree. At a minimum, an additional 15 credits that meet the requirements of the subsequent degree will be required. Students will also be required to meet the objectives and board requirements of each degree; whereas, only one SIP and Internship are required.

### **STUDENT CLASSIFICATION (ACADEMIC LEVEL)**

All University of Advancing Technology (UAT) students are enrolled as full-time regular students in a program of learning. UAT equates undergraduate class standing in the following manner:

|           |  |
|-----------|--|
| Freshman  | 0–23 Credit Hours earned or accepted       |
| Sophomore | 24–47 Credit Hours earned or accepted      |
| Junior    | 48–89 Credit Hours earned or accepted      |
| Senior    | 90 or more Credit Hours earned or accepted |

### **INTERNSHIPS**

Internships are considered a supervised, practical experience that is the application of previously learned theory.

### **ACADEMIC BREAKS**

An academic break is a natural break in classes. During an academic break, students are considered to be in a continuously enrolled status with no negative effects to their good standing or their satisfactory academic progress. Students receiving

Veterans Educational Benefits should contact the Veterans Services Coordinator in the Office of Financial Aid for further information regarding potential impact of funding.

## **COURSE AND INSTRUCTOR EVALUATIONS**

Course and instructor evaluations are conducted near the completion of each course at University of Advancing Technology (UAT). Evaluations are completed electronically by each student and are utilized as an important resource for curriculum refinement and instructor training. Students are expected to complete evaluations for each course.

## **GRADING**

Students will be awarded a grade for each course according to the following system:

- A = Excellent (4.0) passing
- B = Above Average (3.0) passing
- C = Average (2.0) passing
- D = Below Average (1.0) passing
- F = Failure (0) not passing
- I = Incomplete (I)
- W = Withdrawal (W)
- TR = Transfer Credit (TR)
- AU = Audit (AU)
- P = Passing (not included in GPA)
- NP = Not Passing (not included in GPA)
- PA = Passed by Assessment (not included in GPA; no credit awarded)

The semester grade is a weighted composite of the course grades. A passing grade of D (1.0) or higher is required for courses to be considered as satisfying a prerequisite requirement.

## **GRADE POINT AVERAGE (GPA)**

Each student at the completion of each semester will have attained both a Cumulative Grade Point Average (CGPA) and a semester Grade Point Average. Grade Point Averages are computed using a 4.0 scale as indicated in the University grading policy. Each course's credits are multiplied by the grade received in the course with the result being noted as quality points on the transcript. The CGPA is the result of the total quality points divided by the total attempted credit hours. The semester GPA is the result of each semester's quality points divided by its attempted credit hours. In the case of repeated courses, the University will use the highest grade received in the computation of the student's CGPA.

## **GRADE DISCREPANCIES**

When a student believes his/her grade recorded on the transcript may be incorrect the student should contact the instructor by email. The instructor will respond within 48 hours to the question during the semester or prior to the beginning of classes if the question is submitted during the semester break. The instructor will notify the student of the results of the grade verification request via email. If the student does not hear back from the instructor, the student should directly email Student Services at [studentaffairsteam@uat.edu](mailto:studentaffairsteam@uat.edu). Students with questions regarding transfer credit grades (TR) should contact the registrar at [registrar@uat.edu](mailto:registrar@uat.edu).

## **HONORS SOCIETY REQUIREMENTS**

University of Advancing Technology (UAT) confers three levels of Undergraduate Cumulative Grade Point Average (CGPA) based honors to students upon graduation. At the time of their graduation:

- > A student with a cumulative GPA of 3.5–3.74 graduates Cum Laude.
- > A student with a cumulative GPA of 3.75–3.89 graduates Magna Cum Laude.
- > A student with a cumulative GPA of 3.9 or above graduates Summa Cum Laude.

Students who have earned a cumulative GPA of 3.5 or higher at the time of their graduation are eligible for induction into the Alpha Beta Kappa National Honor Society.

## **LEAVE OF ABSENCE (LOA)**

This policy provides the basis for a defined interruption in a student's program of study and the terms of his or her return. Any LOA that does not qualify as an Approved LOA will be treated for Title IV purposes as a withdrawal requiring that the institution perform a Return of Funds calculation.

### **Approved Leave of Absence**

In order for an LOA to qualify as an approved LOA the following requirements must be met.

1. The request for LOA must be made in writing and include the valid, documented reason for the request.
2. The student must indicate a reasonable expectation of returning to attendance.
3. The institution may not assess the student any additional charges for the student's completion of the prior term's course material upon his or her return.
4. The LOA together with any additional leaves of absence must not exceed a total of 180 days in any 12-month period.
5. A student shall resume attendance at the same point in the academic program that he or she began the LOA. If the student returns earlier, the period of the approved LOA does not terminate until the point in the semester that he or she began the LOA.
6. The institution must explain to the student the effect that non return will have on the student's repayment terms for all Title IV disbursements.

If a student does not return to the school at the expiration of an approved LOA, the student's withdrawal date is the date the student began the approved LOA.

### **MILITARY LEAVE**

A student who is a member of the U.S. military, National Guard or other armed forces reserve unit who is called or ordered to active duty may be granted a Military Leave from the University for the period of active duty and up to one year after returning from active duty.

In order to qualify for an approved Military Leave, the following requirements must be met:

1. The request for Military Leave must be made in writing.
2. The student must indicate a reasonable expectation of returning to attendance.
3. If a student does not return to the school at the expiration of the approved Military Leave, the student's withdrawal date is the date the student began the approved Leave.
4. The student must communicate with the Financial Aid and Housing departments.
5. It is the responsibility of the student to understand their military education benefits and keeping track of their tuition and fees, University of Advancing Technology (UAT) account balance and VA payments and understanding how a Military Leave impacts the aforementioned.

### **WITHDRAWAL FROM THE UNIVERSITY**

A student may initiate a withdrawal from the University at any time. If it is determined that the student does not intend to return to school, University of Advancing Technology (UAT) may initiate the process to withdraw the student.

#### **Date of Determination**

A student's date of determination is the student's withdrawal date or the date of notification, whichever is later.

For a student who withdraws without providing notification to the school, the date of determination is the start of the next semester.

#### **Withdrawal Date**

A student's withdrawal date for Return of Title IV funds (R2T4) purposes is:

- a. The date the student began the institution's official withdrawal process or officially notified the institution of their intent to withdraw; or
- b. The midpoint of the term for a student who leaves without notifying the institution; or
- c. The student's last date of attendance at a documented academically related activity.

### **INVOLUNTARY WITHDRAWAL**

University of Advancing Technology (UAT) is committed to protecting students, staff and faculty from the risk of physical harm and preserving the safety of the campus.

This policy applies when a student's actions or statements indicate a threat to the student's own health and/or safety, a threat to the health and/or safety of others or has acted in a manner against the code of conduct. It should only be used in extraordinary circumstances, when a student is unwilling to request a voluntary leave of absence or withdrawal from the University.

There may be situations in which both the Involuntary Withdrawal Policy and a Code of Conduct violation apply. In all cases, the University shall have final authority regarding the decision and enforcement of the involuntary withdrawal of a student. In addition, the Americans with Disabilities Act (ADA) policy will be considered in the decision, if applicable.

A student may be withdrawn involuntarily, or placed on an involuntary suspension from UAT if the University determines that the student represents a direct threat to the health and safety of himself/ herself or others by engaging in behavior which poses a high probability of substantial harm to himself/ herself or others or has acted in a manner in conflict with the values of UAT. If a student is involuntarily withdrawn or suspended, the normal refund policy applies. If the student is living in university- sponsored housing, they may be required to vacate housing.

In addition, students may be involuntarily withdrawn for financial, academic or other reason on a case-by- case basis. UAT reserves the right to involuntarily withdraw students for any reason.

### **Emergency Suspension**

The University may take emergency action to suspend a student pending a final decision on whether the student will be involuntarily withdrawn, in situations in which (1) there is imminent danger of serious physical harm to the student or others, (2) there is imminent danger of significant property damage, (3) the student is unable or unwilling to meet with Student Services, (4) the student refuses to complete the mandatory evaluation, if applicable. In the event emergency action is taken to suspend the student on a temporary basis, the student shall be given notice of the emergency suspension and an initial opportunity to address the circumstances on which the emergency suspension is based with Student Services.

### **Conditions for Re-Entry**

Because this Involuntary Withdrawal Policy applies to cases in which there is a concern about the safety of the student or others, Student Services may require a student who has been involuntarily withdrawn or placed on leave of absence, or has chosen to withdraw or take a leave of absence to be re-evaluated before they are readmitted in order to assure that he/ she presents no direct threat to himself/ herself or others. This is in addition to all regular re-entry policies and procedures.

### **Parent Notification**

FERPA laws are upheld by utilizing a student's records release form in determining what information to release to parents.

### **SATISFACTORY ACADEMIC PROGRESS (SAP)**

Federal regulations (34 CFR 668.34) require all students receiving Federal Title IV Financial Aid funds maintain standards of reasonable academic progress in the completion of their degree. University of Advancing Technology (UAT) has developed a standard of SAP to monitor a student's academic progress in accordance to the most recent federal and state regulations. These standards require students to achieve a cumulative grade point average (CGPA) that is consistent with meeting graduation requirements, demonstrate they are progressing through their program at a pace that will ensure graduation within the maximum timeframe and complete their degree within a specified maximum timeframe. A student's entire academic history is considered, whether or not the student received federal financial aid.

SAP will be evaluated at the end of each student's semester. For a student to meet the standards of SAP, the student must meet the CGPA, completion and maximum time frame criteria below. Failure to meet any of these standards will result in suspension of eligibility for financial aid and/or VA educational benefits.

### **Undergraduate Students**

| <b>Total Credits Attempted</b> | <b>Minimum CGPA</b> | <b>Pace of Completion</b> |
|--------------------------------|---------------------|---------------------------|
| < 15                           | 1.5                 | 50%                       |
| 16 - 30                        | 1.75                | 55%                       |
| 31 - 45                        | 1.9                 | 60%                       |
| 46 +                           | 2.0                 | 67%                       |

### **Graduate Students**

| <b>Total Credits Attempted</b> | <b>Minimum CGPA</b> | <b>Pace of Completion</b> |
|--------------------------------|---------------------|---------------------------|
| Semester 1                     | 2.0                 | 50%                       |
| Semester 2 +                   | 3.0                 | 67%                       |

### Grade Point Average (GPA) Standard

Students must maintain a minimum cumulative GPA (CGPA) to remain eligible for financial aid.

- > Undergraduate students must meet the minimum CGPA per the standards above and maintain at least a 2.0 CGPA once they've attempted 46 credits and beyond.
- > Graduate students must maintain a CGPA of 2.0 their first semester and a 3.0 for all semesters thereafter.

Transfer credits that are accepted by the University and applied to the student's program of study will be treated as both credits attempted and credits earned. Incompletes will be treated for Satisfactory Academic Progress (SAP) in accordance with the University's policy on incompletes but will not be used in the calculation until a final grade is entered. Repeated course work will be treated under the repeated course work policy, however the University will use the highest grade achieved by the student in the computation of the GPA. Both the original attempt and the repeated attempt(s) grade will remain on the student's transcript. Classes from which the student withdraws under the University individual course withdrawal policy will be treated as credits attempted but not earned.

### Pace of Completion

All students must progress at a pace that allows the student to complete their program within the maximum allotted timeframe. The pace is calculated by dividing the number of successfully earned credits by the number of attempted credits. Students must pass at least 67% of all attempted credit hours with a grade of D- or better.

- > Undergraduate students must demonstrate a 67% or greater pace of completion of cumulative credit hours attempted each semester once they have attempted 46 credits and beyond.
- > Graduate students must meet a completion percentage of 50% their first semester and 67% for all subsequent evaluation points.

All students must also meet or be able to meet both the qualitative and quantitative measures at a pace that insures graduation prior to reaching the Maximum Time Frame threshold to graduate.

### Maximum Time Frame

To remain eligible for Financial Aid at University of Advancing Technology (UAT), students must complete their degree program requirements within 150 percent of the published length of their degree program. All attempted credit hours are counted, including transfer hours, whether or not financial aid was received.

- > Undergraduate Example: If a student's Undergraduate program requires 120 credit hours to complete, then a student is eligible for financial aid during the first 180 attempted credit hours as an Undergraduate student.

***120 x 150% = 180 maximum attempted credit hours for financial aid eligibility***

- > Graduate Example: Graduate programs require 36 credits hours to complete, therefore a Graduate student would be eligible for financial aid during the first 54 attempted credit hours as a Graduate student.

***36 x 150% = 54 maximum attempted credit hours for financial aid eligibility***

### Satisfactory Academic Progress (SAP) Warning

Students who have not met one or more of the SAP standards for the first time will be placed on Financial Aid Warning. Students under Financial Aid Warning can receive student financial aid and/or VA educational benefits for one semester without submitting an appeal. At the end of the following semester, the student must meet the criteria for SAP. If not, the student is considered SAP Non-Compliant.

### Satisfactory Academic Progress (SAP) Non-Compliant

Students that are SAP Non-Compliant are ineligible for student financial aid and/or VA educational benefits unless they submit an appeal, in writing, and the appeal is granted. SAP appeals must be submitted to Student Services within 30 days of the SAP Non-Compliant notice sent to the student's official school email address. To be considered, an appeal must explain why the student failed to make SAP and what has changed in their situation that will allow them to make SAP at the next evaluation. Students who have filed an appeal must still have a financial plan in place (i.e. private loans, cash payments, etc.) while the student's appeal is being considered. If a student's appeal is granted and it is reasonable for the student to meet SAP standards in one semester, they are placed on Financial Aid Probation and can receive student financial aid and/or VA educational benefits for one semester. At the end of the semester, the student must meet the criteria SAP. If not, the student is once again SAP Non-Compliant and is ineligible for aid. The student can appeal again, but the latter appeal must be based on a different reason from the first appeal.

If it is not mathematically possible for a student who is appealing to reach SAP by the end of the next semester, the student can be placed on an Academic Plan for a specific number of semesters. The Academic Plan will be used to evaluate the student's SAP until it expires.

A student can regain financial aid eligibility and/ or VA educational benefits by meeting the SAP standards or the conditions set forth in their academic plan.

| Summary of Financial Aid Statuses    |   | Eligible to receive Financial Aid? |
|--------------------------------------|---|------------------------------------|
| <b>Meeting Satisfactory Progress</b> | A student is meeting Satisfactory Academic Progress when they maintain the cumulative GPA and pace of completion within maximum timeframe standards, per the requirements listed above.   | Yes                                |
| <b>Financial Aid Warning</b>         | A warning semester is given to every student the first time they violate minimum GPA or completion rate requirements. Students are still eligible to receive financial aid and/or VA educational benefits while in warning status.  | Yes                                |
| <b>SAP Non-Compliant</b>             | Students who do not maintain SAP will be placed on SAP Non-Compliant financial aid status. The student is no longer eligible for financial aid and/or VA educational benefits and his or her aid is terminated immediately. The status will remain until the student has an approved appeal or enrolls in a future semester(s), without financial aid and/or VA educational benefits, and regains satisfactory academic progress. | No                                 |
| <b>Financial Aid Probation</b>       | Students are placed on Financial Aid Probation status when the SAP Non-Compliant status is appealed and approved. Financial aid and/or VA educational benefits will be reinstated during the probationary term. Students that do not meet the GPA and completion rate standards in the probationary term will return to a SAP Non-Compliant status, unless the minimum SAP standards are regained.                                | Yes                                |
| <b>Academic Plan</b>                 | If a student appeals their SAP Non-Compliant status and is approved, but the student needs longer than one semester to achieve SAP standards, the student will be assigned an academic plan detailing the academic performance and necessary measures required to maintain financial aid and/or VA educational benefits eligibility until meeting SAP.  | Yes                                |

### **COURSE AUDIT & SKILLS GUARANTEE POLICY**

If a University of Advancing Technology (UAT) alum at any point feels that they do not have the skills necessary to achieve employment or advance in their careers, UAT guarantees lifelong skills training through course audits. Alumni who are in good standing with the University may audit one UAT course at a time, course availability and capacity permitting. Those auditing courses are expected to participate fully in each course and comply with the student code of conduct. Alumni will be charged a pro-rated resource fee for each course; however, their Financial Aid status will not be affected. Course credit and transcripts for completed audited courses will not be awarded.

## GENERAL POLICIES

### **AMERICANS WITH DISABILITIES ACT (ADA)**

The Americans with Disabilities Act (ADA) was enacted to extend to otherwise qualified individuals full access to all aspects of public accommodation, including education. The ADA became effective in July 1992 and prohibits discrimination on the basis of disability. The University does not illegally discriminate on any basis and, in fact, welcomes students with disabilities. The college's facilities have been designed with many special accommodations for people with disabilities and the University inventories many special devices for students which are useful in helping accommodate a variety of physical disabilities.

The ADA is a positive piece of legislation and the college readily complies with all of its provisions. As an employer of more than 25 persons and as a public service provider, the ADA affects the college in two areas: employment of Americans with disabilities and the servicing (education/enrollment) of these persons.

#### **To prevent discrimination, educational services must:**

- > Be provided in an integrated setting if possible.
- > Make reasonable accommodations unless a modification would result in an undue hardship to the institution or a fundamental alteration of the services provided.
- > Furnish auxiliary aids and services when necessary.
- > Remove architectural and structural communication barriers in existing facilities when readily achievable.
- > Provide readers, note-takers and tutors as required.

#### **The University is not required to provide:**

- > Personal devices such as wheelchairs.
- > Individually prescribed devices (e.g., glasses, hearing aids).
- > Services of a personal nature (e.g., assistance in eating, dressing or toileting).

Extra charges to cover accommodation may not be made. Auxiliary aids are not required if they would result in an undue burden (significant difficulty or expense) being placed on the school.

Physical barriers must be removed; however, this college has an ADA-compliant facility at this time and significant effort has already been made to make the facility fully accessible. All individuals involved in recruiting, training and serving students must ensure that students be admitted, trained and serviced equally with no discrimination for disabilities. All efforts should be made to find cost effective ways of accommodating students with disabilities. Student Services should be contacted in all cases of disabled applicants, in order that proper attention is paid to finding suitable and reasonable accommodations.

### **Procedure**

Students who are requesting accommodation for a specific disability will provide a written request for accommodations required and appropriate documentation by a qualified medical or disability specialist of their disability when they apply to the University.

Requests for accommodations will be accepted at any time in a student's program of study; however, students must realize that it may take the University a longer time to comply with certain accommodations than others, so alerting the University at the time of admission provides the best service for the student. A student who is currently enrolled in the school should provide the above materials to Student Services when requesting accommodations.

A designated disability committee of the University will determine whether the documentation provided is appropriate and adequate to establish covered disability under the ADA. Student Services will maintain the request and supporting documentation on the student. The University will enter into an interaction with an otherwise qualified individual who has a covered disability with the stated purpose of ascertaining whether there is a reasonable accommodation that is both available and appropriate to enable the student to pursue a fully integrated educational experience. It is not the responsibility or duty of the University under the ADA to reduce or change its academic standards in connection with a request for accommodation, but rather to ensure that an otherwise qualified person with a covered disability receives an opportunity to receive a fully integrated educational experience through the use of reasonable accommodation.

Students who have requested an accommodation from the school and feel that they are being discriminated against should immediately report this to Student Services.

## **CAMPUS SAFETY POLICY**

### **Office of Campus Safety**

In addition to the express role of each member of the University community, the University has established an Office of Campus Safety which has as its primary Key Responsibility Area, the coordination and promotion of the safest environment possible for all students, faculty and staff. Campus safety is promoted and maintained through diligent observation by the entire community supported by trained safety personnel and deployed safety technology.

University of Advancing Technology (UAT) is a uniquely safe and secure community in a larger urban setting. The University is an open campus for all active students and alum to use resources for academic purposes. Students and alum are expected to use the campus resources and spaces appropriately and as intended. The University is committed to maintaining this safe and secure learning and working environment for all students, employees and guests. All University students, employees and guests are ultimately responsible for their own personal safety and the security of their belongings. The following safety and security principles are in place to aid the University community in maintaining the safe and secure campus that we enjoy today:

### **University Safety Philosophy**

The University sees itself as a unique community of technologically sophisticated students and staff that have learned to collaborate and team together to address a myriad of challenges both educationally and professionally. The commitment to safety at the University is based upon a philosophy that the institutional capacities to team and use technology produce results that are superior to simple individualistic approaches. Consequently the safety philosophy is based upon three key elements:

1. Everyone is responsible to be on alert and to identify safety issues.
2. Timely warning and communication must be accomplished by well-designed solutions.
3. Each member of the University community needs to feel empowered to take appropriate action to maximize safety for themselves and for other members of the community.

These principles are set forth to create a foundation of safety systems that will be designed and employed by the Office of Campus Safety as well as all of the institutional departments of the University. These principles will find expression in the interactions with students, faculty and staff, and ultimately be strengthened by the coordinated efforts of the Office of Campus Safety.

### **Weapons**

The possession, display or storage of weapons is prohibited on all land and buildings owned, leased or under the control of University of Advancing Technology (UAT) or its affiliated or related entities, in all UAT owned or leased vehicles on or off campus and at all UAT or UAT affiliate-sponsored events and activities, except as provided in Arizona Revised Statutes 12-781. Any person found in violation may be subject to all applicable state and federal laws, University policy and the Student Conduct Code. UAT students and employees are required to report violations and suspected violations of this policy to UAT Office of Campus Safety, immediately.

### **Exceptions**

1. A certified peace officer performing his or her official duties.
2. Any other exception to this policy must be approved by the Chief Operating Officer.

### **Personal Safety and Community Awareness**

Campus safety requires that students and employees assume reasonable responsibility for their own personal safety. In this regard all students and employees must take common sense precautions to assure the safety of themselves and other members of the University community. Students and employees are encouraged to attend safety and security related events to learn more about personal responsibility and protection. Students and staff should email safety concerns to [safety@uat.edu](mailto:safety@uat.edu).

### **If You Witness an Emergency Situation**

If you witness emergencies involving personal safety or property call 9-1-1 immediately and then report the incident to Student Services or the Office of Campus Safety. All other suspicious activity and hazardous conditions should be reported to

a designated safety officer on duty. It may also be prudent to contact the Tempe Police by calling the non-emergency phone number: (480) 350-8311.

### **Timely Warning**

Integral to the University's Safety Philosophy is the principle that any imminent or sustained danger to the safety of our community must be communicated as quickly and broadly as feasible to give necessary information that will enable students and employees to take reasonable steps to ensure their own individual and collective safety. Warnings must utilize multiple communication paths such as emails, text message and person-to-person communication. In addition to the aforementioned, the University, through the Office of Campus Safety, will provide students and employees notice of any sustained or prolonged danger through technological communication channels. The warning by the Office of Campus Safety will contain information necessary to employ all appropriate steps for each member of the community to maximize his or her safety. All incidents must be recorded immediately in the system of record to allow for easy access for review of pertinent information regarding a reported incident.

In the event of an imminent threat to the safety of students or employees all members of the community are expected to utilize the [emergency@uat.edu](mailto:emergency@uat.edu) email group to communicate the nature and extent of the threat throughout the University email system.

### **Jeanne Cleary Disclosure of Campus Security Policy and Campus Crime Statistics Act**

In compliance with Federal law, Title 34 CFR part 668.46 the University makes available to students, employees and prospective students campus crime statistics as required by the Department of Education regulations. Crime Statistics are available at: [uat.edu/crimestatistics](http://uat.edu/crimestatistics).

For more information, the University's current Annual Security Report is available at: [uat.edu/annualsecurityreport](http://uat.edu/annualsecurityreport). Interested parties may print a paper version of the Annual Security/Fire Report from this link or contact the Office of Campus Safety or a member of Student Services to obtain a paper copy. If you would like a copy mailed to you please include your full name and mailing address with your request by emailing [safety@uat.edu](mailto:safety@uat.edu).

Questions, concerns and comments regarding campus safety should be directed to the Campus Safety Manager at (480) 351-7896.

### **CODE OF CONDUCT**

The University of Advancing Technology (UAT) community consists of students, faculty and staff, all of whom are expected to maintain a high standard of ethics, behavior and purpose. UAT students are important and vital members of this community because they represent the University in all of their personal and public endeavors, both on and off campus. Students carry the obligation to conduct themselves in a manner that is responsible, professional, ethical and beneficial to themselves and other members of the University community. These expectations hold true on campus, in the UAT Residence Life Community and wherever they represent the University in any capacity.

#### **In carrying forth the culture, traditions and values of the greater world community, UAT students shall:**

1. Promote and exemplify good digital citizenship and high ethical standards. Infractions of this order include, but are not limited to, illegal hacking, downloading/uploading of offensive material, digital theft or other actions which contradict UAT policies and values, good ethical standards or local, state and federal laws.
2. Respect differences. The health, welfare, beliefs and intentions of others are not always our own, but we must protect them as if they were.
3. Respect the institutional values of UAT and understand that positive change at UAT occurs through considered, balanced dialogue between students, faculty and staff, as well as the community at large.
4. Respect and engage in different learning and teaching styles and value the pursuit of a lifetime of learning.
5. Promote and embody thinking skills.
6. Promote and embody teamwork.
7. Act with honesty and diligence with respect to their responsibilities to the University and its facilities, including registration, completion of course materials and observance of UAT email policies, which prohibit the sending of mass emails.
8. Abide by UAT's policies related to possession of weapons, illegal drugs or alcohol on school premises or in the UAT Residence Life Community.
9. Prevent or report behavior creating a safety hazard to other persons at the school.

10. Create an environment that is free from disobedient or disrespectful behavior toward UAT staff, students and faculty. Engaging in intimidating, abusive or harassing language or behavior toward fellow students and UAT faculty and staff diminishes the growth and community of others and is therefore prohibited.
11. Exemplify the best forms of citizenship. Criminal activity, including physical or intellectual theft of any type, larceny, fraud, cheating and violations of any local, state and federal laws, will not be tolerated at UAT.
12. Avoid classroom disruption or any type of unwarranted interruption of other students' learning experience.
13. Respect UAT equipment and facilities so that they will be available to other learners. Legal infractions will be referred for prosecution to appropriate law enforcement authorities.
14. Maintain the highest levels of academic integrity. UAT students are part of a diverse learning community. Therefore, students who engage in actions that are academically dishonest are in violation of the Code of Conduct. These actions include but are not limited to cheating, deceit and plagiarism. The University defines plagiarism as a willful assertion that the work being submitted is of their own individual thought and does not credit work contributed by another party.

### **Student Responsibilities**

In addition to the codes of student conduct, students who attend University of Advancing Technology (UAT) are expected to embody the following responsibilities that are closely associated with excellence in collegiate education:

1. Timely attendance, due preparation and active engagement in classes and related learning activities.
2. Timely and regular completion of assigned homework to the best of their individual abilities.
3. Taking personal responsibility, while working closely with the University, for fulfilling all requirements toward graduating in their program of study.
4. Promoting good and timely communication by monitoring and promptly answering all communication from the University, including phone messages, email, personal notification or written communications.
5. Promoting collegiate collaboration by engaging in conversations with instructors in areas of learning, academic difficulty and future goals.
6. Taking personal responsibility for their educational progress by keeping track of grades and assignments and ensuring that all paperwork required by the University is completed on time and turned in to the proper department.
7. Participating promptly in University information gathering systems such as evaluations, surveys and other feedback mechanisms.
8. Taking an active role in the UAT community.
9. Reading and adhering to the Code of Conduct.
10. Observing all policies of UAT as stated in this catalog.

### **Consequences**

Students who are found to be in breach of the Code of Conduct Policy are subject to consequences set forth through a University Disciplinary Committee. These consequences will vary based on the type and severity of the Code of Conduct breach. Examples of consequences include mandated counseling, temporary suspension, expulsion from the University or any other action as deemed appropriate by the Committee. The Dean of Students and Academic Operations will form the Committee of at least four University representatives from various departments and each infraction will be considered on a case-by-case basis.

Instructors, staff and fellow students are empowered to document and report instances of academic dishonesty. Failure in this area includes, but is not limited to, cheating, deceit and assisting others in the act of performing academic dishonesty and plagiarism. Fraudulent behavior on the part of students with respect to registering for courses or engaging in activities related to completing coursework (tests, assignments, etc.) will not be tolerated. The following process will be followed in instances of academic dishonesty:

1. Instructors must notify Student Services of a potential violation of academic dishonesty providing specifics on the violation and evidence.
2. Student Services will review the evidence and speak with the student to determine if an actual violation has occurred.
3. Student Services will advise the instructor and the student if the violation will proceed to the Disciplinary Committee or if the student will be resubmitting the assignment.
4. Instructors may enforce individual academic integrity policies through the course syllabi.
5. If the violation progresses to the Committee, Student Services will counsel students on academic dishonesty and begin the investigation by obtaining a written statement from the student.

6. Once the statement is received, the academic integrity violation will be presented to the Committee for review.
7. Consequences for a violation of academic integrity will depend upon severity and the student's academic history. Consequences may result in temporary suspension or expulsion from the University.

If the student is dissatisfied with the outcome of the investigation and determination made by the Disciplinary Committee, the student has the right to file an appeal with the Dean of Students and Academic Operations. The appeal must be submitted in writing within one (1) week of the Committee decision being delivered to the student. The appeal letter must state the reason for appeal and provide supporting evidence. If the appeal is granted, the student may request to be present at the Committee review of the appeal and a new outcome determined as necessary.

### **DRESS CODE**

Appropriate dress and footwear for the collegiate environment are expected at all times.

### **DRUGS AND ALCOHOL**

The Drug-Free Workplace Act of 1988 and the Drug Free Schools and Communities Act Amendments require University of Advancing Technology (UAT) to adopt and put into effect a program to prevent the unlawful manufacture, distribution, dispensation, possession or use of illegal drugs or alcohol by students and employees on University property or in University facilities or at University events and to offer an anti- drug and alcohol abuse program. UAT is committed to maintaining an environment free of illegal drugs and alcohol abuse. The Drug-Free Schools and Communities Act Amendments of 1989 (effective 9-1-90) require the distribution of the following information to all students and employees.

#### **College Policy on Drugs**

Sale, use, possession or distribution of prohibited drugs or controlled substances is prohibited in college buildings or grounds, at college sponsored events or in University-sponsored housing. The term drug covers all controlled substances as defined in Chapter 34 Arizona Revised Statutes Section 13-3401 to 13-3422 that can be found at [www.azleg.state.az.us/ArizonaRevisedStatutes.asp?Title=13](http://www.azleg.state.az.us/ArizonaRevisedStatutes.asp?Title=13).

Offenders are subject to college discipline, up to and including dismissal from the college or termination of employment and referral for prosecution. An employee convicted of any violation of the criminal drug statutes for activities in or on property owned or controlled by the University, at activities sponsored by the University or in University-sponsored housing must notify his or her manager or dean of the conviction, in writing, within five calendar days of conviction.

#### **Obligations of the College**

The University must notify the appropriate federal agency (e.g., Department of Education) of the conviction of any employee or student worker paid in whole or in part by agency funds within ten days of receipt of the notice of conviction. The University must also make a good faith effort to maintain a drug-free workplace, offer drug awareness education, assist students and employees seeking treatment or rehabilitation, notify employees and students of its policy and implement and enforce the policy.

#### **College Policy on Alcohol**

The sale, dispensation or consumption of alcoholic beverages is prohibited on campus or in the UAT Residence Life Community unless specifically authorized at an event approved by the President of the University. In all other cases possession, consumption or distribution of alcoholic beverages is prohibited.

#### **Students**

Compliance with the provisions of the University drug and alcohol policies is a condition of attendance at the University. Violators of these policies are subject to discipline, up to and including expulsion from college, eviction from University-sponsored housing and referral for prosecution.

#### **Student Workers**

Student workers are subject to discipline, up to and including termination of employment, referral for prosecution or corrective action as the college deems appropriate.

### **LOCAL, STATE AND FEDERAL LAWS**

#### **Campus Open Container Policy**

Permission to consume alcohol on University property at a specific event must be requested in writing and granted in writing

by the President of the University. For the dispenser of alcoholic beverages, the following provision of the Arizona state law pertains:

#### **Minimum Purchase Age**

No person shall sell, deliver, give away, cause, permit or procure to be sold, delivered or given away any alcoholic beverage to someone under, or appearing to be under, the age of 21 years.

The dispenser is obligated to demand proof of legal age whenever in doubt. For the consumer of alcoholic beverages, the following provision of Arizona state law pertains:

#### **False Identification**

In Arizona, anyone under the age of 21 years who presents false or fraudulent written identification in order to secure alcoholic beverages is guilty of a criminal offense.

#### **Possession of Marijuana**

A person who knowingly possesses or uses marijuana in Arizona is guilty of a felony.

#### **Drinking and Driving**

All states prohibit drinking and driving. In Arizona, it is unlawful to operate a motor vehicle if the operator or person in control of the vehicle is impaired in the slightest degree. A person convicted may serve ten days in jail or more and pay a fine of not less than \$250.00.

#### **Arizona State Motor Vehicle Law**

The rules and penalties for drinking and driving apply to driving a motor vehicle while under the influence of illicit drugs.

### **COUNSELING, REHABILITATION AND RE-ENTRY SERVICES**

Students seeking counseling in college or referral to community services for drug and alcohol abuse should call or visit Student Services.

For additional assistance or counseling, students can contact the following agencies and programs:

Banner Behavioral Health Services

(602) 254-HELP (4357)

7575 East Earll Dr., Scottsdale, AZ 85251

Saint Luke's Behavioral Health Center

(602) 251-8535/(800) 821-4193

1800 E. Van Buren St., Phoenix, AZ 85006

Terros/Phoenix Interfaith Counseling

(480) 317-9868

1232 E Broadway Rd., Ste 120, Tempe 85282

Desert Vista Behavioral Health

(480) 344-2000

570 W. Brown Rd., Mesa, AZ 85201

La Frontera EMPACT Suicide Prevention Center

(480) 784-1514

618 S Madison Dr., Tempe 85281

East Valley Substance Abuse Center

(480) 833-8122

1550 E. University Dr., Mesa, AZ 85203

Alcoholics Anonymous/Salt River Intergroup

(602) 264-1341

3215 E Thunderbird Rd., Phoenix 85032

**24-Hour Crisis Hotlines:**

- (800) 656-HOPE—RAINN Sexual Assault Hotline (National)
- (800) SUICIDE—HopeLine Suicide Hotline (National)
- (480) 784-1500—Suicide/Crisis Hotline (Maricopa County)
- (866) 205-5229—Toll-Free Sexual Assault Hotline (Arizona)
- (480) 736-4949—Sexual Assault Hotline (Maricopa County)

**FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA)**

University of Advancing Technology (UAT) follows the Family Educational Rights and Privacy Act (FERPA), which provides students certain rights with respect to their education records. Designed to protect the privacy of education records, FERPA establishes guidelines for handling the release of such records.

**Specifically, FERPA provides eligible students the right to:**

- > Inspect and review their education records within 45 days of the day the University receives a request for access.
- > Request an amendment to the student's education records that the student believes are inaccurate or misleading.
- > Consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.
- > File a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the requirements of FERPA.

FERPA protects the education records of students who are currently enrolled or formerly enrolled at the institution. The education records of students who have applied to but have not attended an institution are not subject to FERPA guidelines, nor are deceased students.

**Access to student information is allowed to any of the following:**

- > The student and any outside party who has the student's written request.
- > School officials (as defined by the University) who have legitimate educational interests.
- > Parents of a dependent student as defined by the Internal Revenue Code.
- > A person in response to a lawfully issued subpoena or court order, as long as the University makes a reasonable attempt to notify the student first.

**A student's consent is not required to disclose information in the following instances:**

- > To school officials (defined in policy) who have a legitimate educational interest.
- > To federal, state and local authorities involving an audit or evaluation of compliance with educational programs.
- > Relating to student financial assistance—including Federal Student Aid, Veterans' benefits and other funding.
- > To parents of a dependent student.
- > To comply with a judicial order or subpoena.
- > Relating to a health or safety emergency.
- > When releasing directory information.
- > When releasing the results of a disciplinary hearing to an alleged victim of a crime of violence.
- > To organizations conducting studies for or on behalf of educational institutions.
- > To accrediting and licensing organizations.

**DEFINITIONS****School Official**

A school official can be a person:

- > Employed by the college in an administrative, supervisory, academic, research or support staff position (including law enforcement and health staff personnel),
- > Elected to the Board of Directors,
- > Serving as a student representative on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks,
- > Or a company employed by or under contract to the college to perform a specific task, such as, an agent, an attorney, an auditor or an outsourced service provider.

### **Legitimate Educational Interest**

A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

### **Educational (Student) Records**

These are records that are directly related to a student and are maintained by the educational agency or institute. These records can include, but are not limited to, academic records, financial aid records and placement records.

### **Directory Information**

Directory Information is defined as information contained in an educational record of the student that is not generally considered harmful or an invasion of privacy if disclosed.

University of Advancing Technology (UAT) has designated the following items as directory information in alignment with FERPA guidelines:

- > Student name
- > Address
- > Personal email address
- > Phone number
- > Date and place of birth
- > Hometown
- > Degrees, certifications, awards and scholarships received and dates
- > Dates of attendance (current and past)
- > Enrollment status
- > Participation in officially recognized activities, clubs or sports
- > Most recently attended educational institution
- > Major field of study
- > Academic levels
- > Photographs and videos
- > Academic Awards and honors
- > Scholarship Awards

Students wishing that no directory information be released must submit written notification to the Office of the Registrar at the University campus in Tempe, Arizona: registrar@uat.edu.

### **FLAMMABLE MATERIAL**

The University intends to maintain a safe environment for both students and employees. Flammable liquids and gases pose a particular hazard when stored or used in living areas. It is our intention to provide information and procedures to the University of Advancing Technology (UAT) community on how to deal with and handle flammable liquids. The procedures will also address issues concerning open fires and the use of fire pits. UAT works closely with the Tempe Fire Department to ensure we adhere to the city and state fire codes.

### **Flammable Liquids and Gases**

The hazard of flammable liquids and gases are typically created by the evaporation of fuels or solvents in confined spaces, mixing with air to form a flammable region and ignition by an open flame, pilot lamps, stove, cigarette lighter or faulty wiring. Gasoline, acetone, camping stove fuel (white gas or butane), lighter fuel and propane torch canisters are common items that can supply the fuel. These materials must not be used or stored in student living areas. Certain household combustibles such as hair spray and nail polish are exempt from this requirement and may be possessed by students in their living areas. Mopeds, motorcycles and scooters must not be stored inside residences or parked outside next to an exit, since the gas shut-off valves can leak or not be properly used, creating a flammable vapor hazard. University of Advancing Technology (UAT) provides our community with approved parking on the west side of the campus for mopeds, motorcycles and scooters.

### **Explosives and Improvised Explosive Devices**

Explosives are extremely hazardous and it is illegal and against University policy to possess either manufactured or improvised explosives on the University campus and University buildings. Use and storage of explosives is strictly controlled by local, state and federal laws and are not allowed on campus. The Bureau of Alcohol, Tobacco, and Firearms (BATF)

regulates types of explosives from fireworks to dynamite. See [www.gpo.gov/fdsys/pkg/FR-2013-10-28/pdf/2013-25370.pdf](http://www.gpo.gov/fdsys/pkg/FR-2013-10-28/pdf/2013-25370.pdf) for the latest list of such materials.

### **Combustible Hazardous Materials**

Flammable liquids, gases, solids and explosives, including fireworks, may not be possessed or used on University property. The Office of Campus Safety will have the authority to approve the use of flammable liquids to be used by employees of University of Advancing Technology (UAT). This may include but not limited to the Café and Founders Hall (outside grills), welding and the use of gasoline powered tools.

For information concerning the fire code visit: [www.iccsafe.org](http://www.iccsafe.org).

### **Issues that may be of concern are:**

1. Permits for open flames, bonfires
2. Hot ashes and spontaneous ignition sources
3. Deliberate or negligent burning
4. Location for open burning
5. Bonfires
6. Recreational fires
7. Open flames
8. People attending events
9. Location of storage outside of building

Please contact the Office of Campus Safety for procedures and permissions.

### **RECORDS**

In compliance with the Family Educational Rights and Privacy Act of 1974 (FERPA), University of Advancing Technology (UAT) allows students access to their educational records.

These records include all information maintained by the school which is directly related to the student, with the exception of the financial records of their parents and educational records containing information about more than one student. The University permits access to that part of the record that pertains only to the inquiring student. Student records are confidential and, other than to the student, only such agencies or individuals authorized by FERPA are allowed access without express permission by the student through a records release form. These records are left on file indefinitely. Directory information, however, may be released to valid inquiries unless the student specifically requests in writing that this information not be released.

If a student wishes access to his or her records, he or she should contact the University's Office of the Registrar and complete a written request specifying the desired records. Information on a student's records will be made available by appointment from the institutional office within forty-five (45) days of the receipt of the written request.

Upon graduation, one copy of student's official transcripts will be mailed automatically to the student's most current address at no charge. Transcripts are maintained indefinitely by the University.

### **COMPUTER DISCLAIMER**

Neither University of Advancing Technology (UAT) nor our learning management system provider is responsible for lost files, data, homework, email, computer generated graphics or computer projects loaded on the UAT campus network or personal computers. Students are responsible for maintaining current and viable backup material of all of their work on their own media. In addition, the student is responsible for making sure that all assignments are delivered to instructors in a timely fashion regardless of whether the computer network, email or Intranet is functioning properly.

UAT is not responsible for events or conditions, either natural or man-made, occurring externally to the immediate UAT campus environment or as a result of externally produced actions.

### **WIRELESS NETWORKING DEVICES**

University of Advancing Technology (UAT) will provide support for wireless devices within the confines of the UAT campus for access to the Internet. The support of this technology is to encourage users to use laptops and other electronic devices while on campus, taking full advantage of all of their communication capabilities. Users utilizing wireless technologies are expected

to use the tools to assist them in their educational goals and are expected to adhere to all procedures stated in the Student Code of Conduct and other University policies. In addition, the University will provide secure wireless access to network resources for University administrators, approved staff and University owned equipment.

1. No Laptop or wireless device will have access to the secure, private wireless network unless the device is owned by UAT.
2. Users only need to have DHCP enabled on their wireless device to gain public Internet access. Network resources, such as printing or server access will not be available through the public wireless network.
3. Anyone using a wireless device for any unethical practice or illegal activity will be subject to the procedures described in the Student Code of Conduct or Employee Code of Conduct.
4. UAT will not be responsible for any damage that may occur to a wireless device due to technical malfunction or misuse of the networking device. The public wireless network is a non-secure unmonitored network. Users are encouraged to ensure they use proper anti-virus software to prevent infection and other security measures to prevent interception of their activity.

### **LIBRARY EQUIPMENT LENDING**

University of Advancing Technology (UAT) is committed to ensuring resources are available for learning. All equipment that can be borrowed and taken from the library by community members must be borrowed equitably and responsibly by all knowledgeable students and employees regardless of degree or job duties. All University students and employees will be held responsible for any damage to equipment in their care. Ramifications for damage done to equipment may include fines up to the entire replacement cost of the item(s). All University students and employees will also be held responsible for disruptions caused by failure to return equipment in a timely manner. Ramifications for failure to return equipment in a timely manner may include loss of lending privileges for up to one semester. Equipment is to be used for educational purposes and is not intended for commercial purposes.

### **MASS COMMUNICATION**

In order to ensure that communications between University of Advancing Technology (UAT), its students and employees are consistent and complete, all communication that is to be distributed to students or employees must adhere to all University policies and procedures. Please refer to the procedures for contacts and procedure for each type of communication.

In order to increase the effectiveness of communication, various communication tools and services are available to both staff and students. Anyone who needs to communicate with staff or students may make requests through the Intranet:

- > Text Messaging: University wide text messaging is reserved for marketing purposes and safety concerns only. Marketing is the only department that may send out non-emergency text messages.
- > Emergency Communications: E-mail mass mailing is reserved for the UAT President, Provost or their designee, Human Resources and the Office of Campus Safety. In an Emergency, any student or staff member may email [emergency@uat.edu](mailto:emergency@uat.edu) which will be evaluated for further distribution and may be sent to every UAT e-mail address. Emergency text messages may only be sent out by the UAT President, Provost or their designee, regarding any emergency concerns.
- > Non-emergency safety issues: any student or staff may e-mail [safety@uat.edu](mailto:safety@uat.edu) to report a non-emergency safety issue.

All other communication tools not listed here should go through the work order system or other proper channels.

### **MISSING PERSON**

All reports of students missing from University of Advancing Technology (UAT) housing, including both on and off-campus UAT housing (hereinafter Housing Students), shall be directed to the Office of Campus Safety. Upon an official report of a missing Housing Student, the Office of Campus Safety will conduct an investigation to determine whether the Housing Student is a missing person in accordance with this policy. A Housing Student will be deemed and is therefore determined to be a missing person if he or she has been missing for more than 24 hours, after the official report, without any known reason and contrary to known patterns of behavior.

### **Notification Procedures**

The Office of Campus Safety must notify Tempe Police within 24 hours of a determination that a Housing Student is a missing person. Also within 24 hours of the missing person determination the University must initiate emergency contact procedures in accordance with the Housing Student's designation, this policy and legal obligations.

All Housing Students shall have the opportunity to designate an individual and/or to provide confidential contact information to be used for notification if the student is determined to be a missing person. If a Housing Student is under 18 years of age

and not emancipated, however, the University will notify the student's parent or guardian as soon practicable, but in no case later than 24 hours from the time the student is determined by the Office of Campus Safety to be a missing person.

## **PARKING**

The Office of Campus Safety (OCS) is responsible for monitoring and controlling parking on campus. University students, guests and employees are expected to park as directed in authorized parking areas and to take responsibility for their vehicle and property.

Unauthorized vehicles on campus that do not display a University of Advancing Technology (UAT) parking decal or visitor permit may be subject to the University's parking sanctions. Vehicle owners are responsible for their own personal property and are advised that any fees resulting from unauthorized parking are the vehicle owner's personal responsibility.

Parking permits are sold on a semester basis and are required for parking on campus. All other vehicles, with the exception of visitors, may park free of charge at remote authorized parking areas. The remote authorized parking areas are not patrolled or monitored. Parking on the UAT campus and other authorized parking areas may be used at your own risk. UAT is not liable for any theft or damage to a vehicle or to the personal property within a vehicle.

Parking may be open to all UAT community members for special occasions determined by the office of Organizational Development.

Per the Jeanne Clery Act, all universities must report certain crimes which occur on campus or properties owned/rented by a university. Vehicle theft, burglary/attempted burglary from vehicles are included in this reporting. Any crimes should be reported to OCS as soon as possible.

## **PUBLICITY AND INTELLECTUAL PROPERTY**

University of Advancing Technology (UAT) provides substantial University resources to its students for educational and creative uses. Students create but grant the University a non-exclusive, royalty-free license to use, copy, display, describe, mark-on, modify, retain or make other use of the student's work. The University may use both the student's likeness and the student's work in its marketing, promotional and instructional materials.

## **COPYRIGHT**

In accordance with the Higher Education Opportunity Act of 2008, University of Advancing Technology (UAT) is committed to informing the public about U.S. Copyright Law.

### **Responsibilities**

The University provides resources for University- related duties and responsibilities. The improper or unethical use of these resources is strictly prohibited. Unauthorized copying, downloading, uploading, sharing, installing or distributing of copyrighted material for which University of Advancing Technology (UAT) or the end user does not have express permission to use or does not fall within Fair Use guidelines is strictly prohibited.

### **Consequences**

Disciplinary action may include referral to the Disciplinary Committee, and in cases of repeat offenses, action may also include loss of access to University of Advancing Technology (UAT) networks. In addition to any University action, the copyright owner may also take further legal action against the individual concerned.

### **Summary of Civil and Criminal Penalties**

Copyright infringement is the act of exercising, without permission or legal authority, one or more of the exclusive rights granted to the copyright owner under section 106 of the Copyright Act (Title 17 of the United States Code). These rights include the right to reproduce or distribute a copyrighted work. In the file-sharing context, downloading or uploading substantial parts of a copyrighted work without authority constitutes an infringement.

Penalties for copyright infringement include civil and criminal penalties. In general, anyone found liable for civil copyright infringement may be ordered to pay either actual damages or statutory damages affixed at not less than \$750 and not more than \$30,000 per work infringed. For willful infringement, a court may award up to \$150,000 per work infringed. A court can, in its discretion, also assess costs and attorneys' fees. For details, see Title 17, United States Code, Sections 504, 505.

Willful copyright infringement can also result in criminal penalties, including imprisonment of up to five years and fines of up to \$250,000 per offense. For more information, please see the website of the U.S. Copyright Office at [www.copyright.gov](http://www.copyright.gov).

## NOTIFICATIONS

Under the terms of the Digital Millennium Copyright Act (DMCA), the University has filed a designation of agent for notifications of claims of infringement pursuant to Section 512(c) of the Copyright Act. Any take down notices or notices of copyright infringement should be sent to the designated agent on file.

## STUDENT GRIEVANCE

Students who have concerns dispute or complaints about an experience at University of Advancing Technology (UAT) must follow the UAT grievance procedure. Students have the right to file criminal complaints immediately and anytime during the process.

### General Grievances

Students who have concerns, disputes or complaints about an experience at University of Advancing Technology (UAT) must follow this procedure:

#### Informal resolution process:

1. The first stage of the University's grievance process is for the student to bring their concerns to the attention of the individual most directly associated with the concern. Through email and face-to-face discussions, most matters can be resolved.
2. If discussions fail to resolve or answer the concern to the student's satisfaction, the student shall then contact Student Affairs. Student Affairs will seek to answer and/or resolve the student's concerns.

#### **If informal discussions with Student Affairs are not sufficient, the formal process will be applied as follows:**

3. The student must document and provide specific evidence supporting their grievance in writing to Student Affairs. Using this information, Student Affairs will work to resolve concerns through investigation, advocacy and any other methods they may deem appropriate.
4. If the student is dissatisfied with the resolution provided by Student Affairs in Step #3 and wishes to seek further resolution of their concerns, they must then submit a formal grievance to a Student Affairs coordinator who will record the date of the submitted document and deliver it to the Student Grievance Committee. Any additional documentation can be submitted at this time and must be submitted in writing. The Student Grievance Committee will meet as needed to review submitted concerns. A result of the committee's review may include a period of investigation, but in any case, the Student Grievance Committee will notify a student who has submitted a complaint of its decision within three (3) business weeks of the meeting when the formal complaint was officially submitted. Formal complaints to be considered must contain all of the following elements:
  - a. Be addressed to the Student Grievance Committee, UAT, c/o Student Services.
  - b. A statement that the document is a formal complaint or grievance.
  - c. The specific concerns to be addressed.
  - d. Description of all the actions already taken.
  - e. Specific evidence supporting the listed concerns.
  - f. The student's name, signature, address, phone number and actual date submitted to the committee.
  - g. Be submitted in a timely fashion, normally within forty-five (45) days of the occurrence.
5. A student may request a rehearing of the decision of the Student Grievance Committee and appear in person to present his or her grievance. A student desiring a rehearing must file the request for rehearing within thirty (30) days of the committee's original decision.
6. If the student complaint cannot be resolved after exhausting the University's grievance procedure, the student may file a complaint with the Arizona State Board for Private Post-Secondary Education. The student must contact the State Board for further details.

The State Board address is:

1740 W. Adams

Phoenix, AZ 85007

Phone: (602) 542-5709

Website: [www.azppse.gov](http://www.azppse.gov)

Complaint Link: <https://ppse.az.gov/complaint>

7. Distance education students, who have completed the internal institutional grievance process and the Arizona State Board for Private Post-Secondary Education complaint process, may submit non-instructional complaints to the AZ SARA council. Complaints to AZ SARA can be made at <https://azsara.arizona.edu/content/complaint-process>.
8. If, after exhausting these procedures, a controversy still exists, it shall be settled by arbitration of the Better Business Bureau in Phoenix, Arizona, or under the rules of the American Arbitration Association and judgment upon the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof.

## **STUDENT EMPLOYMENT**

University of Advancing Technology (UAT) does not guarantee student employment and does not place students in jobs. UAT's Career Services department is designed to assist students in their job search.

## **TITLE IX POLICIES**

### **POLICY STATEMENT**

#### **Nondiscrimination**

The University of Advancing Technology (UAT) is committed to providing equal opportunity to its students and employees, and to eliminating discrimination when it occurs. In furtherance of this commitment, UAT strictly prohibits discrimination or harassment on the basis of race, color, religion, religious creed, genetic information, sex, gender identity, sexual orientation, age, national origin, ancestry, veteran status or disability status.

UAT Title IX policy articulates how the University will respond to reported allegations of sexual misconduct involving students, including sexual assault and provides a consolidated statement of the rights and responsibilities under University policies and Title IX, as amended by the Violence Against Women Reauthorization Act of 2013. The policy describes how areas within the University will coordinate the provision of interim remedies and the prompt and effective investigation of allegations of Prohibited Offenses.

This policy applies to all members of the University community, including students, employees, faculty, staff and groups using the University facilities. It further applies to on- or off-campus behavior involving students. The University does not discriminate on the basis of sex in its educational programs and activities. (Implementing Title IX of the Education Amendments of 1972, 20 U.S.C. §§ 1681 et seq.)

Questions regarding Title IX may be referred to the Title IX Coordinators:

Brandi Beals

University of Advancing Technology

2625 W. Baseline Road Tempe, AZ 85283

TitleIX@uat.edu

(480) 351-7879

#### **Sexual Misconduct**

University of Advancing Technology (UAT) is proud of its tradition of having an environment in which all individuals are treated with courtesy, dignity and respect. Every student, instructor and employee has the right to experience a professional atmosphere that promotes equal opportunities and prohibits discriminatory practices, including sexual harassment as defined and otherwise prohibited by state and federal law. Sexual harassment in any form by and between employees, students and campus visitors is prohibited at UAT. These expectations hold true on campus, in the UAT Residence Life Community and wherever they represent the University in any capacity or when conduct is sufficiently serious to limit or deny a student's ability to participate on or benefit from UAT's educational program.

Upon receiving a complaint of Sexual Misconduct (see definition below), UAT will take prompt, reasonable, and timely steps to stop any such conduct, prevent its recurrence, determine what occurred and remedy any subsequent effects. UAT provides all parties with opportunities to present facts, identify witnesses and will reach reasonable conclusions based on the evidence collected.

UAT will take appropriate action against those engaging in Sexual Misconduct, including disciplinary measures when warranted, up to and including termination of employment, and up to and including suspension or expulsion of students.

## **POLICY SCOPE**

This Policy applies to all current and prospective students, employees, volunteers, interns, vendors (including their employees), independent contractors, visitors and institution-affiliated organizations.

This Policy jurisdiction applies to Sexual Misconduct that occurs within the United States:

- > On institution-controlled property,
- > At institution-sponsored events;
- > School programs or activities on or off-campus;
- > Where the conduct has continuing adverse effects on any member of the UAT community in any UAT program or activity, even if it occurs outside of an academic term or when the student is not currently enrolled at the UAT.

Members of the UAT community are encouraged to promptly report Sexual Misconduct to UAT, regardless of where the incident occurred or who committed it. An individual who has experienced Sexual Misconduct is encouraged to immediately seek assistance from a medical provider and report the incident to local law enforcement. Reports to UAT and law enforcement may be pursued simultaneously.

Even if UAT does not have jurisdiction over the person accused of Sexual Misconduct, UAT will still take prompt action to provide for the safety and well-being of the individual reporting and the campus community. Measures include taking reasonable steps to stop and remedy the effects of the Sexual Misconduct and to prevent recurrence of the behavior.

## **SEXUAL HARASSMENT**

When used in this Policy and accompanying procedures, "Complainant" refers to the individual who is alleged to be the victim of conduct that could constitute as sexual harassment or misconduct and "Respondent" refers to the individual who is reported to be the perpetrator of conduct that could constitute sexual harassment or misconduct.

Sex and gender-based harassment, sexual misconduct, sexual assault and retaliation ("Sexual Harassment") violate:

- > Title IX of the Educational Amendments Act of 1972
- > Violence Against Women Reauthorization Act of 2013
- > the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act ("Clery Act")

All forms of conduct are prohibited under this Policy, as are attempts or threats to commit Sexual Misconduct. Reported behavior that does not constitute Sexual Misconduct under this Policy but is determined to be inappropriate according to another applicable UAT policy or code of conduct, may be subject to disciplinary action.

All individuals are protected against Sexual Misconduct regardless of sex, gender, sexual orientation, gender identity or gender expression. Sexual Misconduct can be committed by any individual regardless of an individual's sex, gender, gender identity and expression, or sexual orientation and can occur between individuals of the same or different sex, strangers or acquaintances, as well as people involved in intimate or sexual relationships. Organizations affiliated with the institution or that use UAT property or resources in connection with their activities are also prohibited from engaging in Sexual Misconduct.

Below are definitions and descriptions of the various forms of Sexual Harassment:

### **Unlawful Harassment**

1. Quid Pro Quo - is an UAT employee conditioning the provision of an aid, benefit, or service on an individual's participation in unwelcomed conduct.
2. Hostile Academic Environment - is unwelcomed conduct determined by a reasonable person to be so severe, pervasive, and objectively offensive that it effectively denies a person equal access to an education program or activity. An individual may experience unlawful harassment even if the offensive conduct was not aimed directly at them. Unlawful harassment also includes misconduct based on the individual's gender expression, gender identity, transgender status, gender transition, or nonconformity with sex stereotypes. Inappropriate behavior that does not rise to the level of unlawful harassment under this Policy may still subject the offender to disciplinary action up to and including permanent separation from UAT.

The following is a non-exhaustive list of examples of conduct that, depending on the nature, frequency, and severity, may constitute behavior that is severe or pervasive and unreasonably interferes with an individual's work or academic performance:

- > Sending unwanted sexually oriented jokes to a student or work group email list, text, or other social media platforms.
- > Displaying explicit sexual pictures in common areas of institution property or on a work computer station where others can view it.
- > Making or using derogatory comments, names, slurs, or jokes of a sexual nature.
- > Unwelcomed graphic comments about an individual's body or using sexually degrading words to describe an individual.
- > Unwanted suggestive or obscene communications.
- > Unwelcomed touching of the intimate parts of one's body.
- > Unwelcomed touching of any part of the body.
- > Unwelcomed sexual advances.
- > Promising a benefit in exchange for engaging in sexual activity.

Even when relationships are consensual, care must be taken to eliminate the potential for harassment or other conflicts. UAT's practice, as well as more general ethical principles, prohibits individuals from participating in evaluating the academic performance of those with whom they have amorous and/or sexual relationships. Upon learning of the existence of such a relationship, Responsible Employees (as defined below) have an obligation to report it to the Title IX Coordinators, Brandi Beals.

### **Sexual Misconduct**

Sexual Misconduct is generally defined as sexual conduct that occurs by force or threat of force or without affirmative consent, including where the person is incapacitated. This definition encompasses a range of sexual conduct that could also fall within the definition of unlawful harassment. The Title IX Coordinator will determine whether allegations should be treated as sexual harassment or misconduct under Title IX, based on the specific conduct alleged and the totality of the circumstances. Prohibited forms of sexual misconduct include, but are not limited to: non-consensual sexual intercourse, non-consensual sexual contact, sexual exploitation, relationship violence, and stalking. Below are terms that are relevant to the understanding of sexual misconduct.

1. Non-consensual sexual intercourse is defined as having or attempting to have sexual intercourse with another individual by force or threat of force, without affirmative consent, including where the person is incapacitated. Sexual intercourse includes the penetration, no matter how slight, of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person.
2. Non-consensual sexual contact is defined as having sexual contact with another individual by force or threat of force, or without affirmative consent, including where the person is incapacitated. Sexual contact includes intentional contact with the intimate body parts of another (whether directly or through clothing), touching any part of the body of another in a sexual manner, or disrobing or exposure of another.
3. Sexual exploitation occurs when an individual takes non-consensual or abusive sexual advantage of another for their own or another's benefit or advantage. The following are examples of conduct that could constitute sexual exploitation:
  - > Unauthorized sharing or posting sexually explicit photos of another, including a current or former partner.
  - > Secretly taking pictures or videos of individuals, especially of private or intimate areas of their body.
  - > Observing, recording, viewing, distributing, or allowing another to observe, record, view or distribute, intimate or sexual images of another individual without that individual's consent.
  - > Surveillance and other types of observations, whether by physical proximity or electronic means.
4. Affirmative Consent is the affirmative, conscious, and voluntary agreement to engage in sexual activity. It is the responsibility of each person involved in the sexual activity to ensure that they have the affirmative consent of the other or others to engage in the sexual activity. Lack of protest or resistance does not mean consent, nor does silence mean consent. Affirmative consent must be ongoing through a sexual activity and can be revoked at any time. The existence of a dating relationship between the persons involved, or the fact of past sexual relationship between them, should never by itself be assumed to be an indicator of consent. It is not a valid excuse to alleged lack of affirmative consent that the Respondent believed that the Complainant consented to the sexual activity under either of the following circumstances:
  - > The Respondent's belief of consent arose from their own intoxication or recklessness.

- > The Respondent did not take reasonable steps, in the circumstances known to the Respondent at the time, to ascertain whether the Complainant affirmatively consented.

It is not a valid excuse that the Respondent believed that the Complainant affirmatively consented to the sexual activity if the Respondent knew, or reasonably should have known, that the Complainant was unable to consent to the sexual activity under any of the following circumstances:

- > The Complainant was asleep or unconscious.
- > The Complainant was incapacitated due to the influence of drugs, alcohol, or medication, so that the Complainant could not understand the fact, nature, or extent of the sexual activity.
- > The Complainant was unable to communicate due to mental or physical condition.

A person who is incapacitated is not capable of giving effective consent to sexual activity. A person may be incapacitated by a temporary or permanent mental or physical condition, sleep, unconsciousness, or be incapacitated as a result of consumption of alcohol or drugs. Incapacitation is a state beyond mere intoxication or “drunkenness.” Impairment must be significant enough to render a person unable to understand the fact, nature, or extent of the sexual activity. In evaluating affirmative consent in cases involving incapacitation, UAT considers the state of incapacitation of the Complainant and the knowledge of the Respondent.

5. Relationship Violence is dating violence or domestic violence.

- > Dating Violence means violence committed by a person who is or has been in a social relationship of a romantic or intimate nature with a Complainant. The existence of such a relationship shall be determined by the Complainant’s statement and consideration of the length of the relationship, type of relationship, and the frequency of interaction between persons involved in the relationship.
- > Domestic Violence means use of physical, sexual or emotional abuse or threats to control another person who is a spouse or former spouse, a cohabitant or former cohabitant, a person with whom they have a child, by person similarly situated to a spouse under the law of the state where the violence occurred, and by any other person against an adult or youth victim who is protected from that person’s acts under the laws of the state where the violence occurred (or as defined 34 U.S.C. 12291(a)(10)).

6. Stalking is a course of conduct of a sexual or romantic nature or motivation directed at an individual that would cause a reasonable person to fear for their safety or the safety of others, or to suffer substantial emotional distress (or as defined in 34 U.S.C 12291(a)(30)). Course of conduct means two or more acts, including, but not limited to, acts in which the stalker directly, indirectly, or through third parties, by any action, method, device or means, follows, monitors, observes, surveils, threatens, or communicates to or about a person or interferes with the person or their property.

Reasonable person means a reasonable person under similar circumstances and with similar identities to the victim. Stalking that is not sex or gender-based should be reported to the Student Services team and will be handled pursuant to that responsible policy. Similarly, any incident(s) of stalking in which the stalker and victim are both employees, will be governed under provisions of the employer policies and practices. The following are examples of conduct that depending on the frequency and severity may constitute stalking:

- > Repeated unwanted communication, including face-to-face contact, telephone calls, voice messages, emails, text messages, postings on social networking sites, written letters, or gifts.
- > Posting picture(s) or information of a sexual nature on social networking sites or other websites.
- > Gathering information about the person using public records, online searches, going through the garbage, or contacting the person’s family, friends, or coworkers.
- > Posting private pictures or videos on school bulletin boards or internet sites.
- > Installing spyware on another person’s personal devices, including phones or computers.
- > Surveillance or other types of observation, including staring or peeping.
- > Pursuing, following, or showing up uninvited at or near places like classrooms, residence, workplace, or other places frequented by an individual.
- > Directly or indirectly making threats to the person.

## RETALIATION

Retaliation against an employee or student for filing a grievance or participating in the investigation of a complaint is strictly prohibited. No recipient may intimidate, threaten, coerce, or discriminate against any individual for the purpose of interfering with any right or privilege secured by Title IX. Additionally, they may not retaliate because the individual has made a report or

complaint, testified, assisted, or participated or refused to participate in any manner in an investigation, proceeding, or hearing.

University of Advancing Technology (UAT) will take appropriate disciplinary action, up to and including employment termination or academic dismissal, if evidence of retaliation exists. Likewise, if UAT learns that the complaint is not bona fide or that an employee or student has provided false information regarding the complaint, disciplinary action may be taken against the individual who provided the false information.

## **PRIVACY**

UAT will maintain the privacy of all individuals involved in a report of Sexual Misconduct, to the extent possible. All UAT employees who are involved in the institution's response, including the Title IX Coordinator, Title IX Investigators, Hearing Officers, and Appeal Officers receive specific instruction about respecting and safeguarding private information. Throughout the process, every effort is made to protect the privacy interests of all individuals involved, in a manner consistent with the need for a thorough review of the matter. This includes shielding private, confidential (including but not limited to medical) information unrelated to the facts and circumstances of the case pursuant to FERPA, federal and state privacy protections, as well as the UAT's Policy. UAT will inform all individuals involved in the investigation and/or hearing process, in writing, of the critical importance and expectation that, while the processes are ongoing, they maintain the confidentiality of the process and any information shared with them as a result of their participation. Further, all documents provided in preparation for or related to the hearing proceedings may not be disclosed to any other party under FERPA, as such documents constitute education records which may not be disclosed outside of the proceedings, except as may be required or authorized by law.

Privacy generally means that Privileged Information related to a report of Sexual Misconduct will only be shared with those individuals who have a "need to know." These individuals will be instructed to be discreet and respect the privacy of all individuals involved.

## **PRESERVATION OF EVIDENCE**

Because sexual harassment may involve physical trauma and is a crime, individuals who have experienced sexual violence are urged to seek medical treatment as soon as possible. They are strongly encouraged to preserve all physical and digital evidence of the violence. This may be needed to prove criminal sexual violence, or for obtaining a protective order. Individuals who have experienced sexual violence should not shower, bathe, eat, drink, wash their hands, or brush their teeth until after they have had a medical examination. They should save all the clothing they were wearing at the time of the incident. Each item of clothing should be placed in a separate paper bag (not plastic). They should not clean or disturb anything in the area where the sexual violence occurred. Digital evidence relating to the incident, such as texts, emails, and social media posts, should be also be preserved.

## **RESOURCES**

UAT encourages individuals who have experienced sexual harassment to seek immediate support and advocacy services provided by UAT or community services. The Title IX Coordinator or other campus officials will provide information regarding off-campus resources for support and advocacy.

### **Off-Campus Resources**

UAT encourages individuals who have experienced sexual harassment to seek immediate support and services through the following organizations:

National Sexual Assault Hotline  
(800) 656-HOPE  
[www.rainn.org](http://www.rainn.org)

Banner Behavioral Health Services  
(602) 254-4357  
7575 E. Earll Dr., Scottsdale, AZ 85251

National Domestic Violence Hotline  
(800) 799-7233  
[www.thehotline.org](http://www.thehotline.org)

Terros/Phoenix Interfaith Counseling  
(480) 317-9868  
1232 E. Broadway Rd. Ste 120, Phoenix, AZ 85040

National Suicide Prevention Lifeline  
(800) 273-8255  
[www.suicidepreventionlifeline.org](http://www.suicidepreventionlifeline.org)

24-Hour Crisis Line  
Sexual Assault Hotline (Maricopa County)  
(480) 736-4949

## REPORTING

A victim of Sexual Misconduct has a right to file a formal complaint against anyone engaging in Sexual Misconduct. A formal complaint is defined as a document filed by a complainant or signed by the Title IX Coordinator alleging sexual harassment or misconduct against a respondent and requesting the recipient investigate the allegation of sexual misconduct.

To initiate a complaint, a Complainant must submit a document alleging Sexual Misconduct against a Respondent and requesting that UAT investigate the allegation. A formal complaint may be filed with the Title IX Coordinator (see below) under §106.8(a), in person, mail, or email. The complaint must indicate that the Complainant is the person filing the formal complaint. A Complainant may, at any time, request a dismissal of the Complaint. All requests for dismissal must be sent to the Title IX Coordinator and be in writing.

At the time of filing a formal complaint, a complainant must be participating in or attempting to participate in the education program or activity of the recipient with which the formal complaint is filed.

Additionally, anyone who witnesses, experiences, or is otherwise aware of conduct that the individual believes to be in violation of this Policy, including retaliation, is urged to contact the Title IX Coordinator.

Upon receipt of a Formal Complaint, the Title IX Coordinator will assess the complaint for a Title IX violation and, if appropriate, refer the matter for investigation and a hearing pursuant to the procedures set forth in this Policy.

### Title IX Coordinator and Designee

The Title IX Coordinator is responsible for coordinating UAT's compliance with Title IX and for UAT's overall response to conduct falling under Title IX. The Title IX Coordinator oversees all Title IX complaints, monitors outcomes, identifies and addresses any patterns of systemic problems that arise, and assesses effects on the campus climate. The Title IX Coordinator will also discuss with both parties the offering of any "supportive measures," which are non-disciplinary, non-punitive individualized services that are designed to restore or preserve equal access to the education program or activity without unreasonably burdening the other party. The Title IX Coordinator also oversees the implementation and application of UAT's Title IX-related policies within the scope of Title IX. The Title IX Coordinator coordinates UAT's response to all complaints of Sexual Misconduct to ensure consistent treatment of parties involved, and prompt and equitable resolution of complaints. The contact information for the Title IX Coordinators can be found below:

Brandi Beals  
 Dean of Students and Academic Operations  
 2625 W Baseline Road  
 Tempe, AZ 85283  
 BBeals@uat.edu or TitleIX@uat.edu  
 (480) 351-7879

If a Complainant believes that the campus Title IX Coordinator has a conflict of interest or is biased, the Complainant may contact any other Title IX Coordinator listed above or request the appointment of a designee.

### Responsible Employees

If an individual discloses Sexual Misconduct to any Responsible Employee the responsible employee must report to the Title IX Coordinator all relevant details about the alleged conduct. The following are Responsible Employees:

- > Title IX Coordinators/Investigators
- > Student Services Advisors
- > UAT Leadership Group
- > Resident Assistants (RAs) and Founder's Hall Management Team
- > Campus Safety Staff

To the extent possible, UAT is committed to protecting the privacy of all individuals involved in a report of Sexual Misconduct. All employees involved in the response to a report of Sexual Misconduct must understand the importance of properly safeguarding private information. UAT will make every effort to protect individuals' privacy interests consistent with UAT's obligation to investigate reports made to UAT.

If a member of the UAT community would like support and guidance in filing a complaint, they may contact the Title IX Coordinator or the designee if the Complainant does not feel comfortable contacting the listed Title IX Coordinators for any reason.

### **Notification of Law Enforcement**

Individuals who have experienced sexual misconduct are encouraged to notify local law enforcement. UAT will provide assistance in notifying law enforcement if the individual so chooses. An individual who has experienced sexual violence also has the right to decline to notify law enforcement or UAT.

UAT has an obligation under applicable state law to report incidents of sexual violence to law enforcement. However, UAT will not report identifying information about the Complainant without the Complainant's consent after being notified of their right to have personally identifying information withheld.

### **CONFIDENTIALITY**

If a Complainant discloses an incident to the Title IX Coordinator or a Responsible Employee, but requests that their name not be used, that the institution not pursue an investigation, or that no disciplinary action be taken, UAT must weigh the request against its obligation to provide a safe, non-discriminatory environment. The Title IX Coordinator will weigh the request for confidentiality against factors including, but not limited to:

- > the seriousness of the misconduct;
- > circumstances that suggest there is a significant risk that the accused will commit further acts of Sexual Misconduct;
- > whether UAT can undertake any action without the participation of the Complainant;
- > the existence of independent evidence;
- > the extent of prior remedial methods taken with the Respondent; and
- > any legal obligation to proceed based on the nature of the conduct, whether there was a weapon involved, and the age of a student victim.

The Title IX Coordinator will determine the appropriate manner of resolution in accordance with Title IX. The Title IX Coordinator will attempt to address the conduct consistent with the Complainant's request not to use their name or their request not to pursue an investigation or that no disciplinary action be taken, while also protecting the health and safety of the Complainant and the UAT community.

UAT's ability to fully investigate and respond may be limited if the Complainant requests anonymity or declines to participate in an investigation. For example, if a Complainant requests that their name or other identifiable information not be shared with the Respondent or that no formal action be taken, UAT may be limited in its ability to fully respond to the complaint. UAT will, however, take other action to limit the effects of the Sexual Misconduct and prevent its recurrence.

In instances where the Title IX Coordinator determines that UAT must proceed with an investigation despite the request of the Complainant, the Title IX Coordinator will inform the Complainant of UAT's intention to initiate an investigation.

In all cases, the final decision on whether, how, and to what extent UAT will conduct an investigation, and whether other measures will be taken in connection with the report of Sexual Misconduct, rests solely with the Title IX Coordinator and UAT.

### **GOVERNMENT AGENCIES**

Employees, students and others participating in UAT's educational programs or activities may direct questions regarding Title IX or file complaints with the U.S. Department of Education Office for Civil Rights, (800) 421-3481, [www2.ed.gov/about/offices/list/ocr/index.html](http://www2.ed.gov/about/offices/list/ocr/index.html). Filing a complaint with a federal agency under Title IX must be done within 180 days after an alleged discriminatory or harassing event and there is no requirement to exhaust remedies through UAT's internal procedures before filing directly with a federal agency. Participants in programs funded by other federal agencies providing federal financial assistance to UAT may file directly with those agencies. Complaints can also be directed to the AZ State Board for Private Postsecondary Education, (602) 542-5709, [www.ppse.az.gov](http://www.ppse.az.gov) or <https://ppse.az.gov/complaint>.

### **INFORMATIONAL RESOURCES**

Information on Sexual Misconduct, as well as copies of this Policy and procedures are available from UAT's Title IX Coordinator, the Academic Catalog, and in the UAT Policies online.

## **PROCEDURES FOR INVESTIGATING AND RESOLVING COMPLAINTS**

### **Introduction and Scope of Procedures**

University of Advancing Technology (UAT) will take prompt and appropriate action to address all reports of Sexual Misconduct in a fair and impartial manner. UAT's policy reflects its commitment to support and encourage individuals who have been subjected to Sexual Misconduct to come forward. UAT takes all allegations of Sexual Misconduct seriously and responds appropriately. UAT's policy is also intended to ensure that individuals accused of engaging in Sexual Misconduct are not prejudged; that they have notice and a full and fair opportunity to respond to allegations before findings and conclusions are reached; and that decisions are based on the evidence gathered in a process that is fair to both Reporting Parties and Responding Parties. All Respondents are presumed not responsible. UAT will conduct a fair, impartial, timely and thorough investigation.

These procedures are for the benefit of current members of the UAT community. However, these procedures do not apply in cases in which the Reporting Parties and Responding Parties are current employees. If an employee is alleged to have engaged in any misconduct affecting another employee, then the provisions of institution's employee policies and employment agreement and employer practices shall control.

When a complaint involves a third party who is not affiliated with the institution, UAT's ability to investigate and take action against the person accused of Sexual Misconduct may be limited. However, in all cases, UAT will conduct an inquiry into what occurred and take prompt action as is practicable to provide for the protection and well-being of the Complainant and the campus community.

### **Reporting to UAT**

A member of the UAT community who wishes to report Sexual Misconduct should file a complaint as soon as possible after the incident, although complaints may be made at any time. Complaints can be made in writing and should be brought to the attention of the Title IX Coordinator or a Responsible Employee.

### **Initial Assessment, Supportive Measures, and Dismissals**

For reports of Sexual Misconduct covered by Title IX, UAT's Title IX Coordinator will make an initial assessment of the complaint which will include:

- > an immediate assessment of any risk of harm to individuals or to the campus community;
- > taking steps necessary to address those risks; and
- > an assessment whether the allegations meet the definition of "Sexual Harassment" under the Policy and applicable Title IX regulations. These steps may include interim protective measures to provide for the safety of the Complainant and the campus community as described in the Policy.

The Complainant will be provided with information on the Complainant's rights and options under the Policy and these procedures, written materials about the availability of, and contact information for, resources and services, and coordination with law enforcement. The need for, and types of, interim measures also will be discussed. The Title IX Coordinator may also meet with the Respondent and other relevant parties as part of the initial assessment. If the Title IX Coordinator meets with the Respondent, the individual will be provided with information on the Respondent's rights under the Policy and these procedures, and written materials about the availability of, and contact information for campus resources and services.

UAT's Title IX Coordinator will also determine whether the complaint contains sufficient facts to pursue a claim under the Policy and Title IX regulations. To conform to applicable law, the Title IX Coordinator is required to dismiss a complaint if the alleged misconduct does not constitute sexual harassment, the alleged sexual misconduct did not occur in UAT's education program or activity, or did not occur against a person in the United States.

The Title IX Coordinator has the discretion to dismiss the complaint if:

- > the Complainant submits a written request to withdraw the complaint or specific allegations;
- > the Respondent is no longer enrolled or employed by UAT; or
- > there is insufficient evidence available to make a determination.

For all dismissals, the Title IX Coordinator will provide the parties with a written notice explaining their decision. Thereafter, if the complaint is not dismissed, the investigation process the Title IX Investigator will begin the investigation to reach a formal resolution.

## Alternative Resolution

After an initial assessment of the alleged facts, the Title IX Coordinator may—if both parties agree—begin an Alternative Resolution process. Alternative Resolution is not available for incidents in which an employee is accused of sexually harassing a student.

Alternative Resolution may include, among other responses:

- > Referral for disciplinary action;
- > An agreement between the parties;
- > Referring the Respondent to targeted preventive educational and training programs; and
- > Conducting a follow-up review to ensure that the resolution has been carried out effectively.

Except for the limitations stated above, the Title IX Coordinator has sole discretion to determine whether the complaint is appropriate for Alternative Resolution, to determine the type of resolution to pursue, and to stop the process at any time before its conclusion and move to a Formal Investigation. Participation in Alternative Resolution is voluntary, meaning both the Reporting and the Responding Parties must mutually agree, in writing, to participate. If Alternative Resolution is selected, the Title IX Coordinator will provide timely written notice to both parties that that discloses the allegations and that:

- > The Title IX Coordinator has begun the process;
- > The process is voluntary and will end upon either party's request;
- > Termination of Alternative Resolution may result in Formal Investigation;
- > They may be accompanied by an advisor throughout the process; and
- > The Title IX Coordinator will notify both parties of the process's outcome
- > Conclusion of the Alternative Resolution process will preclude the parties from resuming a formal complaint arising from the same allegations unless the parties failed to satisfy the terms of the agreement; and
- > Records of the process will be maintained and shared.

The Title IX Coordinator will conduct the Alternative Resolution process unless good cause requires another individual. The Title IX Coordinator will endeavor to complete the Alternative Resolution process promptly, typically within 30 to 60 business days of notifying the parties in writing of starting the process. However, the Title IX Coordinator may extend the Alternative Resolution process past 60 days for good cause. The Title IX Coordinator will notify the parties in writing of the reason for any extension and the projected new timeline. The actual time required will depend on the specific circumstances, including the complexity of the allegations and the nature of the alleged conduct.

Once the parties have agreed to the terms of an Alternative Resolution, UAT will not conduct a formal investigation unless the Title IX Coordinator determines that the Respondent failed to satisfy the terms of the Alternative Resolution.

The Title IX Coordinator will keep records of all reports and conduct addressed through Alternative Resolution.

## Supportive Measures

As described in the Policy, supportive measures are actions taken by UAT in response to a report of Sexual Misconduct and will be made available to both parties as appropriate. These steps may include, but are not limited to, interim safety measures, which may be made at any time, to provide for the safety of individuals and the campus community. Appropriate administrative changes and/or academic changes may be made, if requested and reasonably available, at any stage in the process to protect the rights of either party. Interim measures will be made by the Title IX Coordinator in coordination with responsible administrators. These changes include, but are not limited to:

- > counseling services;
- > academic accommodations up to or including changes to classes;
- > mutual “no contact” orders between individuals;
- > restrictions to be on campus completely or to specific campus areas or activities;
- > limitations on extracurricular clubs or events;
- > changes in work schedules or locations;
- > a leave of absence; and/or
- > any other remedy that can be tailored to the involved individuals to achieve the goals of the Policy.

Changes specifically affecting faculty and staff might include, but are not limited to:

- > transfer of supervisory roles;
- > evaluative responsibility regarding grading;
- > supervision;
- > changes to job assignments up to or including changes to working location; and/or
- > administrative leave.

When taking steps to separate a Complainant and Respondent, UAT will engage in an individualized and appropriate evaluation based on the information gathered by the Title IX Coordinator, making every effort to avoid depriving any student of their education. Care will be taken to protect both parties with the greatest degree of privacy possible. If a Complainant wishes to seek a temporary restraining order or similar judicial order, UAT will provide the Complainant with information to initiate that process.

The imposition of interim measures is not indicative of a determination of responsibility or any other outcome. These measures may be modified at any time and may be kept in place after a final decision is reached.

All parties are expected to comply with any interim measures that may be imposed until the formal resolution process concludes. Failure to comply with interim measures may be separate grounds for disciplinary action.

### **Investigation Procedures**

For complaints that have not been dismissed or resolved informally, the Title IX Coordinator will begin to initiate the investigation process. For complaints against parties outside the institution, the Title IX Coordinator will make reasonable efforts to prevent future incidents. The purpose of the investigation is to determine the facts relating to the complaint; decisions are based on the evidence. Evidence may include the testimony of any involved parties and/or witnesses, and any documents relating to the complaint. UAT's policy and procedures are intended to ensure that individuals reported for Sexual Misconduct are not prejudged and are provided with adequate notice and an opportunity to be heard regarding the allegations made against them. Consistent with federal and state law, the investigators will ask questions or seek evidence that is relevant and not protected by law. Furthermore, evidence of a prior consensual sexual, romantic, or intimate relationship between the Complainant and Respondent itself does not by itself imply consent or preclude a finding of Sexual Misconduct. UAT's investigation will occur independently from any legal/criminal proceedings that may take place. UAT may defer fact-gathering for an appropriate time during a criminal investigation.

Investigators will be trained on issues related to Sexual Misconduct, trauma-informed responses, and investigation processes that protect the safety of all involved and promote accountability. The investigators must be impartial and free of any conflict of interest.

Below are the procedures and processes related to Title IX investigations:

1. The investigation begins when the Complainant files a complaint and the Title IX Coordinator provides notification that the investigation has begun.
2. Within a reasonable length of time after the complaint has been filed, the Title IX Coordinator will notify both parties in writing that the investigation has commenced. This notification will: summarize the allegations and underlying reported behavior; identify the assigned investigator; identify the parties involved, the specific section of the Policy allegedly violated, the precise conduct allegedly constituting the potential violation, and the date and location of the alleged incident; warnings against any retaliation; advise the parties to review the Policy and these procedures and where each are located; and set forth any supportive measures and other directives.
3. Either party may object to an investigator if they believe that investigator has a conflict or cannot be impartial. A conflict of interest occurs where an individual's personal interests or relationships conflict with their ability to be a neutral fact finder in a particular case. The objection must be in writing, explain the bias or conflict of interest, and be sent to the Title IX Coordinator no later than five (5) calendar days after the date of the notice of investigation. The Title IX Coordinator will consider any objections and notify the parties of the decision related to the assigned investigator.
4. After a reasonable amount of time to review the notice of investigation and applicable policies, the parties will be given equal opportunity to meet with the investigator. In those meetings, the investigator will gather evidence about the allegations, including any documents or written statements submitted by either party. The Complainant and Respondent must have an advisor accompany them throughout the investigation and hearing process. An advisor can be chosen by each party and may be a family member, friend, or attorney, but cannot be a university employee. If a

party does not select an advisor, the university will appoint one for them. If a party refuses to work with the appointed advisor, they forfeit the right to cross-examination in the hearing process. The advisor may attend, but shall not participate in, meetings with Complainant or Respondent. This includes speaking on behalf of a party.

5. The parties may suggest witnesses and documents to the investigator, as well as questions for the investigator to ask the other party and any witnesses. The investigator will determine whether the suggestions are relevant and appropriate. UAT asks the parties to keep the investigation private but cannot prohibit the parties from discussing the investigation with others in connection with identifying evidence for the investigator to gather.
6. The investigator will interview relevant witnesses and gather other evidence related to the allegations. Witnesses may also submit documents or written statements to the investigator(s).
7. The investigator will investigate any allegations that alcohol or drugs were involved in the incident.
8. The investigator will use the *preponderance of evidence* as the standard of evidence in determining whether Sexual Misconduct occurred. A preponderance of the evidence means that it is more likely than not that the incident occurred. When the investigator is presented with two different but plausible versions of the incident, credibility determinations may affect the outcome. The same standard of evidence is used for formal complaints against students as it is for formal complaints against employees, including faculty, and apply the same standard of evidence to all formal complaints of sexual harassment.
9. The Complainant and Respondent will be given equal opportunity to review and respond to all the evidence gathered by the investigator.
10. The investigator will prepare a written report that includes: the factual allegations; the alleged policy violations; statements of the parties; a summary of the evidence; an explanation of why any evidence was not considered (if applicable); credibility determinations, when appropriate; findings of fact; and an analysis of whether the Respondent is responsible for misconduct under the Policy. Prior to completion of the investigative report, the recipient must send to each party and the party's advisor, the evidence subject to inspection and review in an electronic format or a hard copy, and the parties must have at least 10 days to submit a written response, which the investigator will consider prior to completion of the investigative report.
11. After the report has been finalized, the matter will be referred for a hearing. No less than 10 days before any hearing, and a copy of the report will be provided to the Hearing Officer, the parties, and their advisors, if any, for the parties' review and written response.

### Hearing Procedures

Once the matter is referred to a hearing, there will be a fact-finding hearing before a single Hearing Officer. The hearing is to determine whether a violation of the Policy occurred. Through the Hearing Officer, the institution will consider the relevant evidence available.

1. Hearing Officer - The Hearing Officer may be an institution employee or outside contractor appointed by the Title IX Coordinator. They will be appropriately trained, including on how to make a trauma-informed response, with such training coordinated by the Title IX Coordinator. The Title IX Coordinator will inform the parties of the Hearing Officer's identity. Within five (5) calendar days after the notification, the parties may request the Hearing Officer's disqualification because of bias or conflict of interest. The Title IX Coordinator shall have sole discretion to decide whether an actual bias or conflict of interest exists. Employment or affiliation with the institution, or prior work as a contractor, on its own, does not warrant disqualification. Similarly, the Hearing Officer's gender, gender identity, race, ethnicity, religion, sexual orientation or similar identifying characteristic, or the fact that they differ from those of any party, do not, on their own, warrant disqualification.
2. Pre-Hearing Communications - The Hearing Officer will send each party and their advisor a thorough pre-hearing email to explain the formal resolution process, address questions, begin to define the scope of the hearing, and address other issues to promote an orderly, productive and fair hearing.
  - > Each party will be asked scheduling requirements and dates for the hearing. If the parties fail to agree, the Hearing Officer shall unilaterally set the date and time.
  - > The Hearing Officer will explain what to expect at the hearing.
  - > The Hearing Officer will discuss with each party which witnesses they intend to bring to the hearing, the scope of issues, and disputed facts. The Hearing Officer has sole discretion to grant or deny, in whole or part, the parties' requests for witnesses.
  - > The Hearing Officer will discuss measures available to protect the well-being of parties and witnesses at the hearing, as appropriate.

- > The Hearing Officer shall inform any party without an advisor that UAT will provide one without fee or charge. To the extent a party requires the appointment of an advisor, the Hearing Officer shall promptly inform the Title IX Coordinator in writing.
- > The Hearing Officer will determine: the scope of the hearing; identify material disputed facts; whether to reasonably allow or exclude evidence including witness testimony; and/or make any other determinations necessary to promote an orderly, productive, and fair hearing.
- > The Hearing Officer will request the attendance of all witnesses whose testimony is determined to be within the scope of the hearing. The institution cannot force parties or witnesses to testify in the hearing and their decision not to testify will not be a reason to cancel or postpone a hearing. However, the Hearing Officer shall inform the parties of the consequences of non-participation.
- > At least five (5) business days prior to the hearing, the parties will receive the Hearing Officer's written confirmation of scope and evidence; copies of all the evidence that will be considered at the hearing, including, without limitation, the investigation file; and the names of expected witnesses and a summary of their expected testimony. If the Hearing Officer has excluded evidence (including witness testimony) that a party has requested to present, they will explain why in writing. The Hearing Officer will also notify the parties of any procedural determinations they have made regarding the hearing, including whether the Hearing Officer is ordering a new investigation due to a material procedural error committed by the investigator and delaying the hearing.

### 3. Hearing Procedures

- > The hearing will be live and recorded. For the convenience of the parties, Hearing Officer, and/or witnesses, the entire hearing, or portions of it, may be conducted over videoconference.
- > The parties and witnesses will address only the Hearing Officer and the parties' advisors.
- > Courtroom rules of evidence and procedure will not apply. The Hearing Officer will generally consider all evidence they determine to be relevant and reliable. The Hearing Officer may determine and weigh the relevance of any witness testimony or other evidence to the findings.
- > During the hearing, the Hearing Officer may: reasonably exclude evidence, including witness testimony; decide any procedural issues for the hearing; and/or make any other determinations necessary to promote an orderly, productive, and fair hearing.
- > The investigator shall make themselves available for questioning by the Hearing Officer at the hearing.
- > Witnesses will attend the hearing only to provide their testimony and will not be permitted to sit in attendance for any other part of the proceedings.
- > The investigation file will be entered as evidence at the hearing. The Hearing Officer may rely on any facts or findings in the report that are undisputed.
- > In cases where the credibility of a witness is not central to the determination of a particular disputed issue and the witness does not appear at the hearing, the Hearing Officer may determine what weight to give to their statements from the investigation report.
- > If a party or witness does not submit to cross-examination at the live hearing, the Hearing Officer shall not rely on any statement of that party or witness in reaching a determination regarding responsibility; however, that the Hearing Officer cannot draw an inference about the determination regarding responsibility based solely on a party's or witness's absence from the live hearing or refusal to answer cross-examination or other questions.
- > The Hearing Officer will allow the parties and/or witnesses to be visually or physically separated during the hearing. This may include, but is not limited to, the use of a physical partition, a separate physical location, videoconference, and/or any other appropriate technology.
- > To assess credibility, the Hearing Officer and advisors must have sufficient visual and audio access to the Complainant, Respondent, and any witnesses presenting information.
- > The parties will have the opportunity to present the evidence they submitted at the pre-hearing meeting, subject to any permissible exclusions determined by the Hearing Officer. Unless good cause is shown, the parties may not introduce evidence, including witness testimony, at the hearing that they did not identify during the pre-hearing communications.
- > The parties have the right to hear (or, if deaf or hard of hearing, to access through auxiliary aids for services) testimony of all individuals who testify at the hearing and to propose questions to be asked of all individuals who testify at the hearing. The parties may propose questions at the hearing by submitting them to the Hearing Officer in writing ideally at the pre-hearing meeting or anytime during the hearing session(s) in which the witness or party provides testimony.

- > The Hearing Officer will determine the order of questioning. The Hearing Officer may exclude questions that are unduly repetitive, not irrelevant, harassing, unduly time consuming, or seek privileged or protected information. The Hearing Officer will briefly state his or her reasons for excluding questions asked by the parties' advisors.
- > Only the parties' advisors may ask questions of the opposing party and witnesses. All questions must be relevant, and the Hearing Officer shall make a determination of relevancy before the witness or party answers. Relevancy determinations may not be challenged by the party's advisor. If a party does not have an advisor present at the live hearing, UAT will provide one without fee or charge. If a party refuses to work with the appointed advisor, the party forfeits the right to cross-examination.
- > The Hearing Officer will decide whether the Respondent was responsible for misconduct under the Policy based on a preponderance of evidence standard. The Hearing Officer will take into account the investigation file and report, as well as the other evidence presented and accepted at the hearing. On any disputed issue of significance, the Hearing Officer will make their own reasonable findings and credibility determinations based on all the evidence before them.
- > The Hearing Officer will adjourn the hearing after they have determined that each side has had an opportunity to present their respective case and no other evidence is required to form reasonable conclusions.

### **Final Resolution**

Once the Hearing Officer has adjourned the hearing, the Hearing Officer will render a decision. The Hearing Officer may reach any one of the conclusions below:

- > Respondent was responsible for misconduct under the Policy.
- > Respondent was not responsible for misconduct under the Policy.

If the Hearing Officer found that the Respondent was responsible for misconduct under the Policy, the Hearing Officer must determine disciplinary action for the Respondent but has discretion as to which of sanctions below will be imposed, understanding that the Hearing Officer may choose more than one sanction:

- > Verbal warning;
- > Training(s);
- > Mandatory counseling/coaching;
- > A formal written warning placed in the Respondent's file;
- > Exclusion from participation in certain activities for specified period;
- > Restricted access to campus spaces, resources, or activities;
- > Suspension from campus;
- > Termination of employment;
- > Expulsion;
- > Administrative leave without pay;
- > Revocation of admission;
- > Removal from on-campus housing; and/or
- > Other appropriate corrective action.

UAT will take appropriate measures to prevent the reoccurrence of any Sexual Misconduct, and to correct any discriminatory effects on the Complainant and others, as appropriate. The Title IX Coordinator will be responsible for effective implementation of any remedies.

Results of disciplinary proceedings may be disclosed in a manner consistent with applicable law, including Family Educational Rights and Privacy Act (FERPA), Title IX, and the Clery Act, as is considered Privileged Information.

### **Notification of Decision and Sanctions**

The Hearing Officer will send written notice to the Complainant, Respondent, and Title IX Coordinator, setting forth the determination and the sanctions to be imposed (if any). The written notice will conform to the requirements of 34 C.F.R. § 106.45, which includes:

- > Identification of the allegations;
- > A description of the procedural steps taken from the receipt of the formal complaint through the determination, including any notifications to the parties, interviews with parties and witnesses, site visits, methods used to gather other evidence, and hearings held;

- > Findings of fact supporting the determination;
- > Conclusions regarding the application of the Policy to the facts;
- > A statement of, and rationale for, the result as to each allegation, including a determination regarding responsibility, any disciplinary sanctions the UAT imposes on the Respondent, and whether remedies designed to restore or preserve equal access to UAT's education program or activity will be provided by UAT to the Complainant; and
- > The procedures and permissible bases for the Complainant and Respondent to appeal.

## **Appeals**

Appeals of a Hearing Officer's final, written decision of responsibility are strictly limited to: (1) procedural irregularity that affected the matter's outcome; (2) new evidence that was not reasonably available when the determination of responsibility was made that could affect the matter's outcome; and/or (3) the Title IX Coordinator/Investigator or Hearing Officer had a conflict of interest or bias that affected the matter's outcome. There are no other grounds for appealing a Hearing Officer's decision and only final, written decisions of responsibility are appealable.

Appeals may be made by either the Respondent or Complainant and must be in writing and submitted to the Title IX Coordinator within ten (10) calendar days of notification of the Hearing Officer's final, written decision of responsibility or of the Title IX Coordinator's mandatory or discretionary dismissal of a complaint. The initial request must contain a brief statement identifying the basis for the appeal. The Title IX Coordinator will refer only timely and appealable matters to an Appeal Officer. If the Title IX Coordinator determines that the matter cannot be appealed, written notice to the requesting party will be provided. If the matter is referred for an appeal, the Title IX Coordinator will then disclose, in writing, the Appeal Officer's identity to the person making the appeal. The appealing party will have three (3) business days after being notified of the Appeal Officer's identity to request, in writing, that the Title IX Coordinator appoint a new Appeal Officer and identify the alleged conflict of interest. The Title IX Coordinator, or designee if the Title IX Coordinator has been accused of bias or a conflict of interest, has the sole discretion to appoint another Appeal Officer or deny the appealing party's request.

After the Appeal Officer has been selected and the matter is assigned, the Appeal Officer will notify both parties in writing of the appeal and its basis. Both parties may submit a written statement supporting or challenging the matter's outcome. Although the Appeal Officer will set deadlines for responses, all appeals generally should be conclude within thirty (30) calendar days from the initial request.

After reviewing the written appeal, the Appeal Officer has the sole discretion to deny or grant the appeal, and, if granted, order a new hearing or refer the case back to the Hearing Officer with instructions. The Appeal Officer, if the appeal is granted, may order the Title IX Coordinator to reopen a dismissed case. The Appeal Officer may only rely on the evidence presented at the hearing; no other evidence may be considered. Within a reasonable amount of time after rendering a decision, the Appeals Officer will send a copy of the decision to the appealing party and the Title IX Coordinator. The written notice shall include reasons supporting the granting or denial of the appeal and the remedy chosen. All appeal decisions are final.

## **Additional Complaints**

If the corrective action does not end the Sexual Misconduct, the Complainant should immediately notify the Title IX Coordinator. In such cases, the Complainant has the right to file another complaint.

## **TRAININGS**

University of Advancing Technology ensures that all staff, faculty, and students receive Title IX training. Students are advised of the policy each semester during orientation and publishes training materials in the Learning Management System for all students to review at the start of every semester. UAT employees complete a Title IX training upon hire and complete the training each year they are employed. Mandatory reporters receive additional training to handle the complex nature of how to report a grievance.

Those who are involved with the Title IX process such as the Coordinator, Investigator, Hearing Officers, and Appeals Officer receive additional annual training as required. Training materials can be provided for review upon request. Trainings include but are not limited to:

- > Office of Civil Rights Webinars
- > Spencer Fane Legal Services
- > Paperclip Webinars

- > Title IX Investigator and Adjudicator Training
- > TrainEd Webinars
  - > Conducting A Grievance Process Under the New Title IX Regulations
- > SUNY Title IX Regulations Webinars

# ON-CAMPUS POLICIES FOR STUDENTS

## ON-CAMPUS POLICIES

### **RESIDENCE LIFE COMMUNITY**

The Residence Life staff manages the Founder's Hall community. A vital part of the staff are the Resident Assistants (RAs). The RAs are available to assist students with their transition to university life, and also during their educational journey at University of Advancing Technology (UAT). RAs are current students who act as student advocates and mentors for the students living within the residence life community. They are an informative source for campus activities, academic matters, campus and community resources and administrative procedures.

The Residence Life experience includes on-campus housing in Founder's Hall. The Residence Life Community has the convenience of individual leases, access to washers and dryers, common spaces, basic furnishings (beds, dressers, desks), basic utilities, and support of the community from the RAs and Residence Life activities.

When living in the Residence Life Community, UAT expects residents to adhere to the Code of Conduct, the Residence Life housing contract and the ResLife Community Policies. Residence Life Community costs are allocated to each student's account and housing deposit is required at the time of move-in. Financial aid may be used to cover the Residence Life Community costs, but all paperwork must be completed and approved prior to moving in.

All first-year undergraduate students are required to live in the Residence Life Community during their first year at UAT.

There are limited exceptions to this policy (for example, if you are married or are living with parents or guardians within a designated mileage from campus). A student who wishes to reside outside of the Residence Life Community must submit this application to the University and furnish appropriate documentation or other written information supportive of the request 30 days prior to the semester the student wishes to commence residing outside the Residence Life Community.

A student should inquire in advance about requesting permission from the University for independent housing in order to avoid inconvenience for the student and the University.

Prior to entering into any type of off-site rental or lease agreement, a student should secure written authorization for independent housing. Any questions should be directed to the Director of Founder's Hall (ResLife@uat.edu). It is the student's responsibility to follow-up and maintain communication with the Office of Residence Life to ensure that the Application for Independent Housing was received and that determination of final decision was made.

Please send Application for Independent Housing to the following address:

Department of Residence Life  
2627 W. Baseline Rd.  
Tempe, AZ 85283-1056

### **COURSE LOAD**

Undergraduate students enrolled at University of Advancing Technology (UAT) are required to maintain full-time status. The Provost or designee must approve exceptions to this requirement. However, students may take credits under full-time status if it is their final semester. Full-time status for an undergraduate student is defined as a minimum of 12 credit hours in a single semester. Note that Financial Aid eligibility may be impacted by a reduction to less than full-time enrollment. Undergraduate students registering for courses in a single semester are limited to a maximum of 18 credit hours. Overrides are available for students wishing to take up to 21 credit hours in a single semester. Overrides are granted for those students whose UAT academic record reflects a CGPA of 3.5 or better. However, if a student attempting more than 18 credits in a single semester should fail or withdraw from a course during that semester, he or she will not be eligible for an override on course load in future semesters.

## TUITION POLICIES

### TUITION FEES

University of Advancing Technology (UAT) has a tuition lock to assist students and their families with the planning of their tuition investment. New students will establish their tuition rate at the time of their enrollment and will not be subject to any subsequent increases in tuition as long as they remain continuously enrolled at the University. Change of start date may forfeit tuition lock.

The rate of tuition for on-campus undergraduate students is \$12,950, effective May 1, 2022. Tuition is subject to change at any time. Additional information regarding tuition rates may be found at [uat.edu/tuition](http://uat.edu/tuition).

### OTHER FEES

The non-refundable seat deposit to accompany the enrollment agreement for graduate and undergraduate programs:

- > US Residents        \$250
- > Non-US Residents   \$250

In addition to the non-refundable seat deposit, non-US Resident students enrolling as International students will also need to remit the following deposits:

- > A tuition deposit (See the Refund Policy for more details) of \$1,000.

The transfer credit fee is \$100. This is a one-time fee for all transcripts evaluated during the admissions process.

The Resource Fee for on-campus students is \$375 per semester, effective September 6, 2022. When required, use of textbooks and electronic textbooks for the duration of your courses are provided at no cost. If you wish to permanently own your textbooks, you may purchase them on your own. Due to copyright infringements, there may be times where a student will be required to obtain a resource for a class on their own as it cannot be provided to the student directly.

Parking Permit fees for students choosing to park on-campus are \$75 per semester for a car and \$35 per semester for a motorcycle.

### HOUSING FEES

The housing cost for the 2022 - 2023 housing costs are \$10,500 (private bath) or \$8,940 (shared bath) for a one-year (12-month) license agreement. Visit [uat.edu/housing](http://uat.edu/housing) for updated information.

The Residence Life housing deposit is \$550 (with a guarantor), or \$750 (without a guarantor) and covers the following costs:

- > \$400 security deposit with a guarantor or \$600 without a guarantor (refundable)
- > \$150 administrative fee (non-refundable)

Please reference On-Campus Housing Policy.

### STUDENT MEALS

Student Meal Plans effective September 2022:

- > Rookie Plan: 180 meals per semester with \$250 in Café Credit included will cost \$2,275
- > Expert Plan: 220 meals per semester with \$300 in Cafe Credit included will cost \$2,375
- > Grand Master Plan: Unlimited access with \$350 in Cafe Credit included will cost \$2,450

First year residents living in Founder's Hall will be required to subscribe to one of these plans.

## UNIVERSITY SCHOLARSHIPS

University of Advancing Technology (UAT) seeks to award scholarships to on-campus, undergraduate students who have demonstrated achievement and potential for success. UAT students are accepted for admission based on a range of qualifications that express the student's vision for the college experience, the value of technology innovation in the world and their desire to attend a tech-centric university. UAT's comprehensive scholarship program is designed to reward new students who meet these standards and show successful academic performance.

All scholarship recipients must meet the full admission requirements and be enrolled for a program of study within UAT prior to the disbursement of scholarship funds. Scholarship awards and eligibility depend upon the particular scholarship the student is awarded. Living, transportation, resource expenses are the responsibility of the student. The award is applied to the overall tuition amount and is not a cash award. This award is not transferable to another university.

Announcement of scholarship awards will be in the form of letters to the applicant's home address. Eligibility for each type of scholarship is outlined within the following information. Many UAT scholarships have associated deadlines for a) the submission of documentation supporting the award of the scholarship and b) enrollment following notification of a scholarship award. UAT scholarships are for undergraduate and on-campus students only. The only UAT scholarship that this does not apply to is the Continuation Scholarship.

Scholarship recipients are an integral part of the UAT community and should be proud of the award received. Therefore, recipients may be asked to:

- > Participate in on-campus events.
- > Attend tutoring sessions, as needed.
- > Write blog posts based on their experiences at UAT.
- > Mentor other students.
- > Serve as an ambassador to other students.

When a student transfers to a ground or syncflex program from an online program, the student's tuition rate will change to the current rate. The tuition rate for modality transfer students will be the published rate for the semester the student transitions. If a modality transfer student moves into Resident Life housing, or already lives in Resident Life housing, any applicable scholarships will be evaluated and applied to the student's account.

UAT Executive Officers or Directors of the Board may create special circumstance UAT scholarships from time to time. Approval of these scholarships, and the length of time they are available to students, will be at the discretion of the Officers and/or Board.

Unless otherwise stated, these special circumstance scholarships will follow the same requirements as all other UAT scholarships: Scholarship recipients must maintain Satisfactory Academic Progress (SAP) at UAT, stay continuously enrolled at the University, abide by the University Code of Conduct and act with ethics above reproach. The recipients must make satisfactory progress towards completion of UAT degree objectives.

### ALMA MATER PRIDE SCHOLARSHIP

University of Advancing Technology (UAT) offers an Alma Mater Pride Scholarship to students recommended to the University through our alumni network.

#### Eligibility:

A UAT Alumnus, prior to a submission of an inquiry request, must recommend the applicant.

#### Award Amount:

\$1,000 per semester for a maximum of eight (8) semesters. \$8,000 scholarship maximum.

#### Terms and Conditions:

The recipient(s) must maintain at least Satisfactory Academic Progress (SAP) at UAT, stay continuously enrolled at the University and abide by the University Code of Conduct and act with ethics above reproach. The recipient(s) must make

satisfactory progress towards completion of UAT degree objectives. Progress will be monitored by UAT and the award may be revoked if recipient is not meeting expectations and requirements outlined in the university catalog.

**Renewal:**

Scholarship recipients who meet award maintenance requirements will receive the scholarship for up to eight semesters for on-campus undergraduate programs.

**BOYS & GIRLS CLUBS OF GREATER SCOTTSDALE COMMUNITY SCHOLARSHIP**

University of Advancing Technology (UAT) has had a culture-rich history since its inception. Founded in 1983, UAT is committed to supporting and educating young people of all cultures, backgrounds and orientations, to prepare them for an innovative career in technology. For more than three decades, our University has held true to these values and will continue to do so as we grow and advance with the times.

**Eligibility:**

Any high school junior or senior, who has attended one of the Boys & Girls Clubs of Greater Scottsdale clubs, with proof of high school graduation or GED and having been accepted via UAT's acceptance process is eligible to receive this scholarship. Recipients must attend on campus.

**Award Amount:**

The BGCBS scholarship award amount is a one-half tuition scholarship to be credited evenly over eight consecutive semesters or four academic years, for a total amount of approximately \$50,000.

**Terms and Conditions:**

The recipient(s) must maintain at least Satisfactory Academic Progress (SAP) at UAT, stay continuously enrolled at the University, and abide by the University Code of Conduct and act with ethics above reproach. The recipient(s) must make satisfactory progress towards completion of UAT degree objectives. Progress will be monitored by UAT and the award may be revoked if recipient is not meeting expectations and requirements outlined in the university catalog. The recipient(s) may not receive this scholarship in addition to an academic scholarship.

**Renewal:**

Scholarship recipients who meet award maintenance requirements will receive the scholarship for up to eight semesters for on-campus undergraduate programs.

**DANCERS OF BALLET ARIZONA SCHOLARSHIP**

A half-tuition scholarship to attend University of Advancing Technology (UAT) will be awarded to dancers from Ballet Arizona. The relief effort provides retiring dancers an opportunity to pursue higher education outside of ballet.

**Eligibility:**

We are seeking current and retired Ballet Arizona dancers. Students who have retired from the company must begin classes on campus within one year of retiring and must meet all UAT acceptance requirements.

**Award Amount:**

The Dancers of Ballet Arizona Scholarship award amount is a half tuition scholarship to be disbursed evenly over eight consecutive semesters or four academic years, for a total amount of approximately \$48,500.

**Terms and Conditions:**

The recipient(s) must maintain at least Satisfactory Academic Progress (SAP) at UAT, stay continuously enrolled at the University and abide by the University Code of Conduct and act with ethics above reproach. The recipient(s) must make satisfactory progress towards completion of UAT degree objectives. Progress will be monitored by UAT and the award may be revoked if recipient is not meeting expectations and requirements outlined in the university catalog. The recipient(s) may not receive this scholarship in addition to an academic scholarship.

**Renewal:**

Scholarship recipient(s) who meet award maintenance requirements will receive the scholarship for up to eight academic semesters.

## **MERIT SCHOLARSHIP**

The University is seeking students who demonstrate both strong academic success, a commitment to technology and a deep passion for learning and technology.

### **Award Amount:**

Amounts vary and range from \$500/per semester to \$5,000/per semester and are determined at application.

Innovator Scholarship: up to \$40,000

Futurist Scholarship: up to \$32,000

Premier Thinker Scholarship: up to \$24,000

Learning Scholarship: up to \$12,000

Excellence Scholarship: up to \$8,000

UAT Experience Scholarship: up to \$4,000

### **Terms and Conditions:**

The recipient must maintain at least a 3.0 CGPA at UAT, stay continuously enrolled at the University, uphold any and all stipulations of the UAT Code of Conduct and act with ethics above reproach. Recipients must make satisfactory academic progress towards completion of UAT degree objectives. Progress will be monitored by UAT and the award may be revoked if the recipient is not meeting expectations and requirements outlined in the University catalog.

### **Renewal:**

Scholarship recipients who meet award maintenance requirements will receive the scholarship for up to eight semesters for on-campus undergraduate programs.

## **MURPHY'S ROBOTICS SCHOLARSHIP**

The University of Advancing Technology (UAT) Murphy Robotics Scholarship is awarded to active participants in the FIRST Robotics Competition, the FIRST Tech Challenge, the VEX Robotics Competition, the TSA-VEX Competition, or the BEST Robotics Competition for their academic success and continued participation in programs related to science, technology, engineering and mathematics. The student must have been a part of a competing team. The mission of each organization clearly aligns with our mission, vision, and core values.

**FIRST** (For Inspiration and Recognition of Science and Technology) is an organization driven to engage students in science and technology through a mentor- based program that involves leadership, technology skills, engineering, mathematics and teamwork.

**VEX** is a Robotics Design System that sponsors competitions in order to inspire creativity and innovation in designing and building robots. The competition requires leadership, technology skills, engineering, mathematics, and teamwork.

**BEST** (Boosting Engineering Science and Technology) is an organization driven to engage students in science and technology through a sports-like competition that involves leadership, technology skills, engineering, mathematics and teamwork. The scholarship is for one \$40,000 scholarship per Robotics team and is awarded to one student on the team who is participating in the FIRST Robotics Competition (divided as a \$5,000 tuition scholarship each semester for eight semester).

### **Eligibility:**

- > Be a high school senior.
- > Be recommended by their adult sponsor of the student's Robotics team.
- > High School CGPA of a 3.5 or higher.

### **Award Amount:**

\$5,000 per semester for up to eight (8) semesters for a maximum total award amount of \$40,000.

### **Terms and Conditions:**

Eligible students must enroll at the University within one month of the date on the award letter in order to receive the scholarship. The recipient(s) must maintain at least Satisfactory Academic Progress (SAP) at UAT, stay continuously enrolled at the University and abide by the University Code of Conduct and act with ethics above reproach. The recipient(s) must make satisfactory progress towards completion of UAT degree objectives. Progress will be monitored by UAT and the award

may be revoked if recipient is not meeting expectations and requirements outlined in the university catalog. The recipient(s) may not receive this scholarship in addition to an academic scholarship.

**Renewal:**

Scholarship recipients who meet award maintenance requirements will receive the scholarship for up to eight semesters for on-campus undergraduate programs.

**UAT YELLOW RIBBON SCHOLARSHIP**

As part of the Yellow Ribbon GI Education Enhancement Program, University of Advancing Technology (UAT) will award scholarship funds to eligible on-campus and online undergraduate and graduate students.

**Eligibility:**

To be eligible for the UAT Yellow Ribbon Scholarship, students must be eligible for the maximum benefit rate under the Post-911 GI Bill (Based on service requirements). Therefore, students may be eligible if they:

- > Served an aggregate period of active duty after September 10, 2001, of at least 36 months.
- > Were honorable discharged from active duty for a service-connected disability and served 30 continuous days after September 10, 2001.
- > Are a dependent eligible for Transfer of Entitlement under the Post-911 GI Bill based on a veteran's service under the eligibility criteria listed above.

**Award Amount:**

Award amount, a combination of UAT's contribution and a matching contribution from the Veteran's Administration, is determined on an annual basis every August.

**HONORARY DOCTORATE SCHOLARSHIP**

University of Advancing Technology (UAT) is offering an Honorary Doctorate Scholarship to students recommended to the University by an Honorary Doctorate recipient.

**Eligibility:**

A recipient(s) of a Honorary Doctorate of Science in Technology, prior to submission of an application, must recommend the applicant. The Honorary Doctorate degree recipient(s) from each calendar year will be allowed one Honorary Doctorate Scholarship to be awarded to the qualified applicant of his or her choosing.

**Award Amount:**

The Honorary Doctorate Scholarship award amount is a half tuition scholarship to be disbursed evenly over eight consecutive semesters or four academic years, for a total amount of approximately \$48,500.

**Terms and Conditions:**

The recipient must maintain at least a 3.0 CGPA at UAT, stay continuously enrolled at the University, uphold any and all stipulations of the UAT Code of Conduct, and act with ethics above reproach. Recipients must make satisfactory academic progress towards completion of UAT degree objectives. Progress will be monitored by UAT and the award may be revoked if the recipient is not meeting expectations and requirements outlined in the University catalog.

**Renewal:**

Scholarship recipients who meet award maintenance requirements will receive the scholarship for up to eight semesters for on-campus undergraduate programs.

**WARRIORS HEART VETERAN SCHOLARSHIP**

In 1983, University of Advancing Technology (UAT) was founded by a veteran of the United States Air Force. For more than three decades, the family owned and operated University has been committed to supporting and educating our active military and veterans. UAT has been designated a Military Friendly Institution and offers U.S. veterans a dedicated military finance advisor. Warriors Heart and UAT have a partnership to encourage U.S. veterans to take the next steps towards their future once they are ready to leave the healing community at Warriors Heart.

**Eligibility:**

Any retired first responder or U.S. veteran coming out of any Warriors Heart healing program with a DD214 stating an Honorable or General, Under Honorable Conditions discharge, with proof of high school graduation is eligible to receive this scholarship. Warriors Heart recipients may attend on campus or online and will go through an expedited application process that UAT has set up.

**Award Amount:**

The Warriors Heart Veteran Scholarship award amount is a half tuition scholarship to be disbursed evenly over eight consecutive semesters or four academic years, for a total amount of approximately \$48,500. Additionally, UAT accepts up to 90 qualifying transfer college credits and can evaluate earned DANTES credits.

**Terms and Conditions:**

The recipient(s) must maintain at least Satisfactory Academic Progress (SAP) at UAT, stay continuously enrolled at the University and abide by the University Code of Conduct and act with ethics above reproach. The recipient(s) must make satisfactory progress towards completion of UAT degree objectives. Progress will be monitored by UAT and the award may be revoked if recipient is not meeting expectations and requirements outlined in the university catalog. The recipient(s) may not receive this scholarship in addition to an academic scholarship.

**Renewal:**

Scholarship recipient(s) who meet award maintenance requirements will receive the scholarship for up to eight academic semesters.

# ONLINE POLICIES FOR STUDENTS

## ONLINE POLICIES

### **COURSE LOAD**

Undergraduate, online students enrolled at University of Advancing Technology (UAT) are required to maintain a minimum of nine credits per semester. Students may take less than nine credits per term if it is their final semester. Note that Financial Aid eligibility may be impacted by a reduction to less than full-time enrollment. Undergraduate students being registered for courses in a single semester are limited to a maximum of 12 credit hours. Overrides are granted for those students whose UAT academic record reflects a CGPA of 3.5 or better. However, if a student attempting more than 15 credits in a single semester should fail or withdraw from a course during that semester, he or she will not be eligible for an override on course load in future semesters.

### **REGISTRATION**

Online students are automatically registered for their coursework each term.

## TUITION POLICIES

### **TUITION FEES**

University of Advancing Technology (UAT) has a tuition lock to assist students and their families with the planning of their tuition investment. New students will establish their tuition rate at the time of their enrollment and will not be subject to any subsequent increases in tuition as long as they remain continuously enrolled at the University. Change of start date may forfeit tuition lock.

The rate of tuition for online undergraduate students is nine credits for \$6,950, 12 credits is \$8,950, effective May 1, 2022. Students may request up to 15 credits and tuition will be adjusted accordingly.

Tuition is subject to change at any time. Additional information regarding tuition rates may be found at [uat.edu/tuition](http://uat.edu/tuition).

### **OTHER FEES**

The non-refundable seat deposit to accompany the enrollment agreement for graduate and undergraduate programs:

- > U.S. Residents      \$250
- > Non-U.S. Residents \$250

In addition to the non-refundable seat deposit, non-U.S. Resident students enrolling as International students will also need to remit the following deposits:

- > A tuition deposit (See the Refund Policy for more details) of \$1,000.

The transfer credit fee is \$100. This is a one-time fee for all transcripts evaluated during the admissions process.

The Resource Fee for online students is \$375 per semester, effective September 6, 2022. When required, use of textbooks and electronic textbooks for the duration of your courses are provided at no cost. If you wish to permanently own your textbooks, you may purchase them on your own. Due to copyright infringements, there may be times where a student will be required to obtain a resource for a class on their own as it cannot be provided to the student directly.

# GRADUATE POLICIES FOR STUDENTS

## GRADUATE POLICIES

### **COURSE LOAD**

Graduate students enrolled at University of Advancing Technology (UAT) are required to maintain full-time status. Full-time status for a graduate student is defined as a minimum of 6 credit hours of new material per semester. Graduate students being registered for courses in a single semester are limited to a maximum of 12 credit hours.

### **REGISTRATION**

Graduate students are automatically registered for their coursework each term.

### **GRADUATE STUDENT INNOVATION PROJECT**

University of Advancing Technology (UAT's) Master of Science degree includes a Graduate Student Innovation Project (GSIP). The graduation requirement meets today's need for forward-looking skills in developing, managing, and bringing to market technology innovations. The technologies that are transforming global industry require leadership and ingenuity when translating ideas into products with associated market strategies. The GSIP requirement is the outcome of the program's five core courses that move students through the stages of strategizing new business ideas and turning these ideas into viable products.

## TUITION POLICIES

### **TUITION FEES**

University of Advancing Technology (UAT) has adopted a tuition lock concept to assist students and their families with the planning of their tuition investment. Future students will establish their tuition rate at the time of their enrollment and will not be subject to any subsequent increases in tuition as long as they remain continuously enrolled at the University.

A change in start date may forfeit tuition lock. The current rate of tuition for graduate students is \$9,100, effective May 1, 2022. Tuition is subject to change at any time. Additional information regarding tuition rates may be found at [uat.edu/tuition](http://uat.edu/tuition).

### **OTHER FEES**

The non-refundable seat deposit to accompany the enrollment agreement for graduate and undergraduate programs:

- > U.S. Residents      \$250
- > Non-U.S. Residents \$250

In addition to the non-refundable seat deposit, non-U.S. Resident students enrolling as International students will also need to remit the following deposits:

- > A tuition deposit (See the Refund Policy for more details) of \$1,000.

The transfer credit fee is \$100. This is a one-time fee for all transcripts evaluated during the admissions process.

The Resource Fee for graduate students is \$375 per semester, effective September 6, 2022. When required, use of textbooks and electronic textbooks for the duration of your courses are provided at no cost. If you wish to permanently own your textbooks, you may purchase them on your own. Due to copyright infringements, there may be times where a student will be required to obtain a resource for a class on their own as it cannot be provided to the student directly.

## GRADUATE SCHOLARSHIPS

### **CONTINUATION SCHOLARSHIP**

University of Advancing Technology (UAT) offers a scholarship to students electing to continue their education at UAT in pursuit of a master's degree.

#### **Eligibility:**

All UAT graduates who enroll in one of UAT's master degree programs within one year of graduation.

#### **Award Amount:**

The student will receive a scholarship in the amount of \$4,400, spread out evenly over the student's first academic year, or two semesters.

#### **Terms and Conditions:**

The award is not redeemable for cash. The scholarship can only be applied to tuition and will not apply to housing, meal plans or the Resource fee. The recipient(s) must maintain at least Satisfactory Academic Progress (SAP) at UAT, stay continuously enrolled at the University and abide by the University Code of Conduct and act with ethics above reproach. The recipient(s) must make satisfactory progress towards completion of UAT degree objectives. Progress will be monitored by UAT and the award may be revoked if recipient is not meeting expectations and requirements outlined in the university catalog.

#### **Renewal:**

This is a one-time award that will be applied to the student's account.

# UNDERGRADUATE COURSE CODES AND DESCRIPTIONS

## KEY TO COURSE CODES AND DESCRIPTIONS

Letters used to denote a code prefix designate the topic area or course family associated with a course (refer to Course Category and Code Prefix List for complete listing).

Letter codes are arranged alphabetically by Course Category name in the Course Descriptions section of the catalog. Three numbers are employed as a course code suffix and indicate the course's level within its topic area. These numbers range from 100 to 699. Courses numbered between 100 and 299 are considered lower division courses. Courses numbered between 300 and 499 are considered upper division courses. Courses numbered between 500 and 699 are considered graduate level courses. All course numbers below 100 are considered preparatory and do not apply to overall credit hours in a degree program.

Prerequisite(s) indicates progression of courses. Prerequisites are met by completing the foundation course with a minimum passing grade of D (1.0) unless otherwise specified.

All General Education courses are identified within their course description by the notation GE and their area (i.e., Humanities, Social Sciences, Mathematics, Science). For example, the course ENG101 Composition is noted (GE, Humanities) because it is a General Education course in the Humanities area.

## SYMBOLS



indicates foundational courses



indicates skills development courses



indicates synthesis courses

## COURSE CATEGORY AND CODE PREFIX LIST

|                                  |     |
|----------------------------------|-----|
| Art                              | ART |
| Astronomy                        | AST |
| Business                         | BUS |
| Computer Forensics               | CFR |
| Computer Information Systems     | CIS |
| Computer Science                 | CSC |
| Design Build Make                | DBM |
| Digital Media and Design         | DMD |
| Digital Video and Animation      | DVA |
| Entrepreneurship                 | ENT |
| Fitness                          | FTN |
| Game Art and Animation           | GAA |
| Game Programming and Engineering | GPE |
| Game Studies                     | GAM |
| Human Computer Interaction       | HCI |
| Internships                      | INT |
| Management                       | MGT |
| Marketing                        | MKT |
| Network Security                 | NTS |
| Network Technology               | NTW |
| Production Studio                | PDS |
| Robotics                         | RBT |
| Student Innovation Project       | SIP |
| Technology                       | TCH |
| Technology Special Topics        | SPT |
| Virtual Reality Technologies     | VRT |

## GENERAL EDUCATION CATEGORIES AND CODE PREFIX LIST

### Humanities

|                  |     |
|------------------|-----|
| Communications   | COM |
| English          | ENG |
| Humanities       | HUM |
| Japanese Studies | JPN |
| Spanish          | SPA |
| Theater          | THE |

### Mathematics

|             |     |
|-------------|-----|
| Mathematics | MAT |
|-------------|-----|

### Science

|           |     |
|-----------|-----|
| Astronomy | AST |
| Physics   | PHY |
| Science   | SCI |

### Social Sciences

|                |     |
|----------------|-----|
| History        | HIS |
| Law            | LAW |
| Psychology     | PSY |
| Social Science | SS  |

## ART (ART)

|        |            |                       |
|--------|------------|-----------------------|
| ART103 | CREDITS: 3 | PREREQUISITE(S): NONE |
|--------|------------|-----------------------|

### Digital Asset Creation

This course is an overview of Adobe Photoshop and its application in creating graphical assets and collateral graphic materials. This course will cover asset creation from scratch as well as the process for using graphics in applications and on the web. The course will examine and apply the basic tools needed to function and design assets.

|        |            |                                   |
|--------|------------|-----------------------------------|
| ART112 | CREDITS: 3 | PREREQUISITE(S): ART103 OR DMD210 |
|--------|------------|-----------------------------------|

### Graphic Design Principles

This course combines the application of color theory and introductory design principles. The function of traditional design principles incorporating color perception and color psychology give students a strong understanding of basic visual communication elements. Digital and traditional methods in design, color issues and media manipulation are covered, along with designing for an ethnically diverse international audience.

|        |            |                       |
|--------|------------|-----------------------|
| ART121 | CREDITS: 3 | PREREQUISITE(S): NONE |
|--------|------------|-----------------------|

### Beginning Drawing I

Is drawing a gift that has to come naturally? It is actually a skill like any other. This course will demonstrate how easily it can be learned. Drawing is as much about learning how to see and think about form and space as it is about technique. The drawing part itself is just marks on paper. Those marks come together to tell the viewer something about the world that the artist experienced. Drawing also gives one a deeper understanding of the subject being captured. As students progress through the exercises in this class, they will develop a better understanding of the forms being observed and become more skillful in representing them. Improving drawing skills on paper can improve digital drawing skills. ART121 is an introduction to basic drawing concepts and provides a basic foundation in drawing. The course emphasis will be on traditional compositional theory, drawing principles, fundamentals of observing and describing form. Students will gain a strong understanding of tonal and dimensional perspective.

|        |            |                       |
|--------|------------|-----------------------|
| ART209 | CREDITS: 3 | PREREQUISITE(S): NONE |
|--------|------------|-----------------------|

### Typography

This course is an introduction to computerized layout and typography principles. The emphasis is on the visual effects of type as a design and communication element. Students will form an understanding of the fundamental rules related to page layout and type design, the study of letterforms and the practical application of these principles through student projects. The primary focus of the instruction addresses how type is used in contemporary graphic design applications. Students explore the creation of informative, experimental and expressive typographic forms by using traditional and computer-generated techniques.

|        |            |                         |
|--------|------------|-------------------------|
| ART231 | CREDITS: 3 | PREREQUISITE(S): ART121 |
|--------|------------|-------------------------|

### Intermediate Drawing

(GE, Humanities)

Life doesn't stand still and neither should art. This course further explores the drawing techniques established in Beginning Drawing. Students will concentrate on increasing drawing skills with respect to lighting, texture and spatial interpretation, and infusing the smoking gun aspect of lifelike action in compositions. Students will learn how to use color in drawing and to make images come to life. Individual drawing assignments and the development of a final portfolio and sketchbook will be emphasized. The Wacom Tablet will be introduced in the latter part of this course.

|        |            |  |
|--------|------------|--|
| ART233 | CREDITS: 3 | PREREQUISITE(S): (ART112 AND ART121) OR GAA105 |
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### Concept Art

Students will learn to sketch, prototype and design functional creations before committing to their actual development. Concept art is a critical skill in increasing the quality and speed of production. Students will learn to craft, present and refine humanoid, animal, biological and environmental concept art that becomes the foundation for future assets.

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| ART234 | CREDITS: 3 | PREREQUISITE(S): ART121 OR GAA105 |
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### Storyboarding

This course unveils the art of visual storytelling. Storyboarding is an important skill for beginning directors to develop to pre-visualize shots and sets. It is also a critical skill in creating animation sequences and is important to the multimedia developer in planning the needs of a project. Students apply storyboarding techniques to scripts by accurately showing camera angles, placement of the actors, etc. Emphasis is placed on accuracy and presentation.

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| ART236 | CREDITS: 3 | PREREQUISITE(S): ART121 |
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## Basic Character Figure Drawing

This course explores a full range of techniques and artistic viewpoints to animate drawings. Emphasis will be on learning to sketch the human and animal forms in both stick and geometric figures studies. Students will learn the skeletal and muscular makeup of the figures. Studies in the form of homework assignments will be required as well as in-class work. Long and short poses will be interspersed with exercises specifically designed to allow artists to heighten perceptions. Students will practice using the formulas for making character sketches more realistic by understanding the volumetric description and underlying structure of the human form. This course provides the most thorough experience drawing from live models.

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| ART240 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Figure and Character Sculpting

This course offers foundational knowledge of anatomy for artists. An in-depth study of the figure is essential to an artist's understanding of the shapes, both bony and muscular, critical for achieving an accurate representation of surface anatomy. Sculpting the écorché figure in clay and completing numerous anatomical drawings, students develop a deep appreciation and understanding for the construction of the human body, which can be applied critically either directly from nature or their imagination.

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| ART255 | CREDITS: 3 | PREREQUISITE(S): ART103 |
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## Visual Communications/Graphics Design

The course explores the principles and elements of design, and challenges the student to produce creative compelling solutions for promoting a variety of products and services. The student will learn how to build brand recognition and corporate identity through individual and team projects. The course emphasizes aesthetics and visual problem solving, including typographic issues, color management, hierarchy of information and effective layout.

# ASTRONOMY (AST)

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| AST101 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## The Night Sky

(GE, Science)

Astronomers over the last several centuries have unlocked many of the wonders of the night sky. Students will familiarize themselves with the night sky, objects visible from the earth, and properties of those objects. They will explore some of the foundational, scientific principles of astronomy as they learn to use telescopes, astronomical planetarium software, and other readily available online astronomical tools.

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| AST301 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## The Solar System

(GE, Science)

Introduction to the field of astronomy for the non-science major. History of astronomy; astronomy as a physical science; properties of light; telescopes; and structure and evolution of the Sun, planets, moons and other bodies in the Solar System.

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| AST302 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Stars, Galaxies and Cosmology

(GE, Science)

Introduction to the field of astronomy for the non-science major. History of astronomy; astronomy as a physical science; properties of light; telescopes; structure and evolution of stars; structure of the Milky Way galaxy and other galaxies and history of the Universe.

# BUSINESS (BUS)

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| BUS200 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Entrepreneurship to Market

Translating technology innovations and inventions from concept to prototype to market usability requires attending to specific and established development considerations. This course provides students with currently applied frameworks associated with technology products that carry them through development and to a minimally viable state. Considerations such as foundations of cyber and information security, entrepreneurial funding sources, and market analysis will be presented and practiced.

## COMPUTER FORENSICS (CFR)

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| CFR101   | CREDITS: 3 | PREREQUISITE(S): NONE              |
| <b>Computer Forensic Essentials</b>  <p>This course covers the essentials of computer forensic investigations and the evolution of computer forensics. It will explain various modes of attack, examples of cyber crimes, the reasons for cyber attacks, the role of computer forensics in tracking cyber criminals and computer forensics methodologies. The documentation created during this course can be added to the student's portfolio.</p>   |            |                                    |
| CFR105   | CREDITS: 3 | PREREQUISITE(S): CFR101            |
| <b>File Systems and Structures</b>  <p>A firm grasp of basic file systems and structures is a key to the success of a forensic investigator. This course provides an overview of fundamental file structure concepts. This is the foundation of knowledge for file systems and structures that will be the cornerstone for understanding future forensics courses. The documentation created during this course can be added to the student's portfolio.</p>  |            |                                    |
| CFR225   | CREDITS: 3 | PREREQUISITE(S): CFR105            |
| <b>Operating System Forensics</b>  <p>This course will provide the skills, tools and knowledge necessary to choose the proper tool to examine various operating systems. It will explore operating systems from a forensic point of view. Topics covered in this course include examining Windows, UNIX, Linux and Mac operating systems with a key focus on areas of persistence, malware locations and important data locations for each OS. The course will guide students through the popular forensic tools used with each operating system and case examples. The documentation created during this course can be added to the student's portfolio.</p> |            |                                    |
| CFR227   | CREDITS: 3 | PREREQUISITE(S): CFR225            |
| <b>Malware Detection and Analysis</b>  <p>This course provides the skills necessary for students to find, analyze and categorize zero day malware compiled for specific attacks/victims. The course uses actual malware and a variety of tools currently used by practitioners. The course focuses on real-world examples of malware utilized by the Advanced Persistent Threat (APT), the effect on the enterprise and methods for mitigations. The documentation created during this course can be added to the student's portfolio.</p>  |            |                                    |
| CFR230   | CREDITS: 3 | PREREQUISITE(S): CFR101            |
| <b>Investigative Techniques</b>  <p>Forensic sleuthing can involve using some highly creative methods to find the evidence in a case. This course will explore the methods that can be used to solve digital forensic mysteries. It will also train students to use sound methods so all evidence collected during an investigation will be admissible and reliable in court.</p>   |            |                                    |
| CFR235   | CREDITS: 3 | PREREQUISITE(S): CFR105            |
| <b>Mobile Device Forensics</b>  <p>Evidence can be found on handheld devices such as cell phones and tablets. This course will provide the skills, tools and knowledge necessary to seize, image, examine and build cases for handheld devices. It will explore the latest mobile phone technologies, flash memory and along with the tools that can be used to extract information from these devices. The documentation created during this course can be added to the student's portfolio.</p>   |            |                                    |
| CFR315   | CREDITS: 3 | PREREQUISITE(S): CFR101            |
| <b>Video Forensics</b>  <p>This course will cover the process of Forensic Video Analysis. It will explain the makeup of CCTV systems, the optimization of these systems, and the recovery of evidence from CCTV along with the processing of video and image evidence, including authentication. Finally, the creation of reports and testimony will be the same as students will face when becoming certified Forensic Video Analysts. The documentation created during this course can be added to the student's portfolio.</p>   |            |                                    |
| CFR410   | CREDITS: 3 | PREREQUISITE(S): CFR101 AND NTW216 |
| <b>Network Forensics</b>  <p>Today's enterprises implement a variety of equipment within their infrastructures. A successful computer forensic candidate must have the skills necessary to understand topologies and protocols. This course will provide the skills, tools and knowledge necessary to identify and gather evidence on a network. The documentation created during this course can be added to the student's portfolio.</p>  |            |                                    |

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| CFR420 | CREDITS: 3 | PREREQUISITE(S): CFR410 |
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### Advanced Forensics

This course covers advanced forensic topics such as router, application and database attacks. Everything needed to complete complex investigations will be explored, as well as advanced data recovery methods. Advanced Forensics will provide the necessary skills to become one of the top computer forensic investigators on the market today.

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| CFR470 | CREDITS: 3 | PREREQUISITE(S): CFR105 |
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### Corporate and Business Issues in Digital Forensics

This course covers aspects being dealt with in human resource management (protection/investigation of data related to HR operations), eDiscovery (data collection and attribution for legal processes) and intrusions/criminal activities. Topics will reflect actual issues facing businesses globally utilizing real malware, incidents and tools used by practitioners. The documentation created during this course can be added to the student's portfolio.

## COMPUTER INFORMATION SYSTEMS (CIS)

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| CIS100 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Beginning Website Interfaces

This course lays the foundation for web design and coding by teaching students how to create and maintain static websites. Students will design web pages using HTML and CSS in conformance with current and future web standards, learn the basic underlying concepts of HTML page structure and content, CSS styling and rendering of web pages, be introduced to usability and information design principles and have a functioning website by the completion of the class. They will also learn about server technologies, the fundamentals of HTTP and FTP, and how search engines work.

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| CIS175 | CREDITS: 3 | PREREQUISITE(S): CSC102 |
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### Data Collection, Verification, Transformation, and Analysis

This course provides an introduction to data science, how to collect and verify datasets. It will also introduce and apply techniques for data transformation and an introduction to analytical tools to process data.

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| CIS240 | CREDITS: 3 | PREREQUISITE(S): CIS100, CSC102 |
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### Designing Website Interfaces I

This is an intermediate course in client-side coding of enhanced dynamic websites, incorporating the use of HTML/CSS, JavaScript, and AJAX. In this class, students will build functional websites that exhibit professional site planning, design and development. In addition, JavaScript will be utilized to advance the website to include GUI functionality such as buttons, picture carousels, and panels. Students will learn how to use current web development software and an integrated development environment (IDE) to support coding.

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| CIS275 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Introduction to AI and Analytics

This course introduces what AI is, the history, and where it is going. Students will understand how AI utilizes technology and impacts the world today. Students will go beyond understanding to developing both AI and analytics applications utilizing libraries and other resources to accomplish this. This course does use programming but the research and use of libraries is the primary focus.

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| CIS340 | CREDITS: 3 | PREREQUISITE(S): CIS240 |
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### Designing Website Interfaces II

This is an advanced course in server-side coding of enhanced dynamic websites, incorporating the use of HTML/CSS, JavaScript, JQuery, and PHP. Students will learn the concepts of server-side database connectivity to relational database management systems. A survey of the technology of the emerging field of Big Data will be undertaken. In this class, students will build functional dynamic websites that exhibit professional site planning, design and development. Students will continue to learn how to use current web development software and an integrated development environment (IDE) to support coding.

CIS430

CREDITS: 3

PREREQUISITE(S): CIS240 AND MKT250

## Best Practices in Web Production

Is your website as effective as it needs to be? Does it send the right message? Does it utilize appropriate technologies? Can your prospects ever find it? Who is your audience? Does your online portfolio address your strengths and communicate your unique design to your future employer? This course will address best practices in web design and development, will critique professional sites as well as the students' and will provide specific recommendations to strengthen your site and maximize your investment. The class is also designed to guide students through the processes of creating their own effective online portfolio by identifying strengths and weaknesses of a site, discussing how to approach a web redesign, how to approach site structure and information architecture.

## COMMUNICATIONS (COM)

COM226

CREDITS: 3

PREREQUISITE(S): NONE

### Communication in Technology

Students will experience expressing technology concepts to a broad audience. Students will learn best practices in presenting technology products and pitching concepts using business-appropriate communication skills. Effective use of voice, nonverbal skills and visuals will be applied to topics such as robotics, virtual reality, animation, digital video, network security and others. Presentations include peer-to-peer feedback in student-led discussions. In addition, students will have the opportunity to create a resume and be mock interviewed for a technology position.

## COMPUTER SCIENCE (CSC)

CSC102

CREDITS: 3

PREREQUISITE(S): NONE

### Introduction to Programming

The purpose of this course is to introduce the fundamentals of computer science and programming. Students will become familiar with problem solving techniques and algorithm development using computers, including a structured high-level programming language. Topics will include flow of control, assignment, arrays, functions, and input and output, among others.

CSC202

CREDITS: 3

PREREQUISITE(S): CSC102

### C# Programming I

C# is a general purpose, object-oriented programming language suited for all types of development. This course presents the entire language and introduces the Base Class Library (BCL) to the student. Students will learn the syntax, keywords and constructs, as well as how to leverage the resources of the BCL. This is a project-based class and students will develop applications with C# using real-world tools and practices.

CSC203

CREDITS: 3

PREREQUISITE(S): CSC102

### Java Programming I

Java is a general purpose, object-oriented programming language suited for all types of development. This course presents the entire language and the standard libraries to the student. Students will learn the syntax, keywords and constructs, as well as how to leverage the resources of the standard libraries. This is a project-based class and students will develop applications with Java using real-world tools and practices.

CSC211

CREDITS: 3

PREREQUISITE(S): CSC102

### Introduction to Databases

This course will introduce students to the commands, architecture, and applications of structured query language (SQL). Topics will include design documents for a database such as Entity Relationship diagrams, creation of the database schema, creation, access, and manipulation of databases, tables, views, indexes, and stored procedures. In addition, normalization, optimization, backups and database restores will be studied and implemented.

CSC215

CREDITS: 3

PREREQUISITE(S): CSC102

### C/C++ Programming I

C++ is a general-purpose programming language that supports object-oriented programming and is suited for all types of development. This course presents the entire language and the Standard Template Library (STL) to the student. Students will learn the syntax, keywords and constructs, as well as how to leverage the resources of the STL. This is a project-based class and students will develop applications with C++ using real world tools and practices.

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| CSC230 | CREDITS: 3 | PREREQUISITE(S): CSC102 |
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## Internet of Things

This course will cover Internet of Things (IoT) concept from a practical, telecommunication usage, security, augmentation of common devices, current enabling technologies and implementation perspective. This course will focus on fully integrating embedded smart devices, their protocol selections, information security, and real-time software development. Some of the technologies that may be included are Global Standards Initiative, infrastructure as a Service (IaaS), Software as a Service (SaaS) and Platform as a Service (PaaS) and other such services that extend beyond machine-to-machine (M2M) communications, authorization and authentication (such as AWS, Microsoft Azure, and OpenStack). Students will use current enabling technologies (such as Bluetooth, Near-field communication (NFC), Radio-frequency identification, ZigBee) for common devices. Students will develop multiple terminating "smart devices" for inter-connected software applications. Student are introduced to the cyber-physical design architecture and discuss integration of application-level security services. The use cases, protection hardening, legal concerns, and security defense issues related to Internet of Things (IoT) will be addressed.

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| CSC235 | CREDITS: 3 | PREREQUISITE(S): CSC102 |
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## Python Programming I

This course is an introduction to the Python programming language including IDE usage, syntax and implementation of basic data structures. This will go beyond the introduction of concepts and cover object oriented programming, debugging, and libraries.

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| CSC240 | CREDITS: 3 | PREREQUISITE(S): CSC202 OR CSC 203 OR CSC215 OR CSC235 |
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## Linux Operating System

This course is an introduction to the Linux operating system fundamentals, framework, commands, administration, and kernel. This will include system configuration, graphical interfaces, and discussions of various flavors of Unix/Linux.

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| CSC262 | CREDITS: 3 | PREREQUISITE(S): CSC202 |
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## C# Programming II

This course focuses on the craft of software. Students will build upon their previously acquired programming and language fundamentals and develop additional skills essential for crafting high quality and maintainable software. This is a project-based class and students will apply C# and real-world tools and practices to solve common programming problems involving advanced object-oriented programming with design patterns, shared code (DLLs), graphical user interfaces, multi-threading, network I/O and relational databases.

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| CSC263 | CREDITS: 3 | PREREQUISITE(S): CSC203 |
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## Java Programming II

This course focuses on the craft of software. Students will build upon their previously acquired programming and language fundamentals and develop additional skills essential for crafting high quality and maintainable software. This is a projects-based class and students will apply Java and real-world tools and practices to solve common programming problems involving advanced object-oriented programming with design patterns, shared code, graphical user interfaces, multi-threading, network I/O, and relational databases.

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| CSC275 | CREDITS: 3 | PREREQUISITE(S): CSC215 |
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## C++ Programming II

This course focuses on the craft of software. Students will build upon their previously acquired programming and language fundamentals and develop additional skills essential for crafting high quality and maintainable software. This is a projects-based class and students will apply C++ and rea- world tools and practices to solve common programming problems involving advanced object-oriented programming with design patterns, advanced Standard Template Libraries, and dynamic memory management including smart pointers, shared code, multi-threading and network I/O.

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| CSC311 | CREDITS: 3 | PREREQUISITE(S): CSC211 AND CSC330 OR CSC331 |
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## Advanced Databases

This course emphasizes security for databases. It will also cover tools such as MySQLi, PDO, SQLite (for mobile), CouchDB/PouchDB, NoSQL, Project management, data warehousing, and new forms of storage such as Amazon GO! And Apache Cassandra.

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| CSC312 | CREDITS: 3 | PREREQUISITE(S): CSC382 |
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## Cloud Computing

This course will cover cloud computing from a practical, theoretical, usage, and implementation perspective. Some of the technologies that may be included are Infrastructure as a Service (IaaS), and Platform as a Service (PaaS). Vendor platforms such as AWS, Microsoft Azure, and OpenStack are topics for this course. Students will develop cloud-based software applications and discuss integration of application-level services. The use, protection, and security issues related to cloud computing will be addressed. The architecture of cloud computing related to cloud-based information management and databases will be investigated.

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| CSC313  | CREDITS: 3 | PREREQUISITE(S): CSC382                               |
| <b>Operating Systems Theory</b>    |            |   |
| This course explores operating system structure and services through the development of an operating system on a complex embedded system. Topics include processor scheduling, concurrent processes, synchronization techniques, memory management, virtual memory, input/output, storage management and file systems.  |            |   |
| CSC318  | CREDITS: 3 | PREREQUISITE(S): CSC262 OR CSC263 OR CSC275           |
| <b>Software Engineering Principles</b>   |            |   |
| This course introduces formal application development processes. Students will apply a selected Agile-style development process utilizing UP/UML. Students will produce a substantial application produced for real customers by following an Agile-style development process with all the appropriate documentation. Students will work in teams of no more than three people.   |            |   |
| CSC330  | CREDITS: 3 | PREREQUISITE(S): CSC203                               |
| <b>Mobile Development for Android</b>    |            |   |
| As the smartphone and mobile device market increases, so does the need for mobile platform software developers. This class will focus on the nuances of developing for mobile systems for the Android operating system. It will include topics such as GUI design for mobile devices, messaging protocols, and application of streaming data sources.   |            |   |
| CSC331  | CREDITS: 3 | PREREQUISITE(S): CSC203                               |
| <b>Mobile Development for iOS</b>    |            |   |
| As the smartphone and mobile device market increases, so does the need for mobile platform software developers. This class will focus on the nuances of developing for mobile systems for the iOS operating system. It will include topics such as GUI design for mobile devices, messaging protocols, and application of streaming data sources.   |            |   |
| CSC340  | CREDITS: 3 | PREREQUISITE(S): CSC203, CSC211                       |
| <b>Big Data Essentials</b>   |            |   |
| This course will introduce the basics of Big Data. It will define Big Data and the types of systems that are often used with Big Data including their respective advantages and disadvantages. Finally, we will cover how Big Data is used in business to create data products. This course teaches Big Data tools such as Hadoop, streaming technologies and NOSQL Databases. It also introduces cloud technologies and data mining concepts.  |            |   |
| CSC345  | CREDITS: 3 | PREREQUISITE(S): CSC202 OR CSC203 OR CSC215           |
| <b>High Performance Embedded Systems</b>   |            |   |
| High performance embedded systems can provide a low cost development platform for software and hardware developers and they can help fuel the creativity and innovation of the maker community. This class will provide exposure to developan embedded platform and operating system where learners can have fine-grained control of the software, hardware and communications. The Internet of Things will be researched, discussed, and software and hardware development associated with the Internet of Things will be explored. Learners will investigate software and hardware development communities and make meaningful contributions to them. |            |   |
| CSC350  | CREDITS: 3 | PREREQUISITE(S): CSC262 OR CSC263 OR CSC275           |
| <b>Software Quality Assurance</b>    |            |   |
| Key aspects of software production are the reliability and robustness of the application. Topics covered in this course include a thorough discussion of the function of the software quality assurance of a software development, the use of metrics, auditing, reviews, standards and audit of configuration management. Students will additionally be exposed to techniques associated with developing code that is efficient and secure.  |            |   |
| CSC370  | CREDITS: 3 | PREREQUISITE(S): CSC235 OR CSC262 OR CSC263 OR CSC275 |
| <b>Artificial Intelligence</b>   |            |   |
| This course will cover advanced AI including uses in intelligent devices, machine learning, voice recognition, APIs, and libraries for these implementations.   |            |   |

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| CSC373 | CREDITS: 3 | PREREQUISITE(S): CSC262 OR CSC263 OR CSC275 OR CSC370 |
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## Machine Learning

This course focuses on the artificial intelligence field of machine learning. Students will build upon their previously acquired programming and AI fundamentals and develop additional skills essential for developing their own original machine learning algorithms. This is a projects-based class where students will apply unsupervised and supervised machine learning techniques, predictive data models, classification, online learning algorithms, neural networks, and predictive analytics to current machine learning trend case studies.

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| CSC377 | CREDITS: 3 | PREREQUISITE(S): CSC482 |
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## Machine Learning Utilizing Data Science

Introduction to the history of machine learning to its current state today and beyond. In the course, we will write machine learning classifiers from scratch using Python. In this course, you will learn about Artificial Neural Networks, Decision Trees, k-Nearest Neighbor and Naive Bayes. At the end of this course, you will be able to select the best classifier for the situation and be able to write a classifier from scratch.

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| CSC382 | CREDITS: 3 | PREREQUISITE(S): CSC262 OR CSC263 OR CSC275 |
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## Data Structures and Algorithms

This course explores the specification and implementation of containers as abstract data types. Structures covered include strings, vectors, stacks, queues, sequential lists, binary trees, hashes and graphs. The course also investigates algorithm design and evaluation, such as sorting, search, recursion and algorithmic analysis.

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| CSC413 | CREDITS: 3 | PREREQUISITE(S): CSC382 |
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## Advanced Software Development I

This course will introduce the combination of web, frameworks, and database integration into a single project along with design, testing and version control. This project will include other features such as MVC.

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| CSC436 | CREDITS: 3 | PREREQUISITE(S): CSC211, CSC382, MAT220 |
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## Data Analytics

This course follows CSC340 Big Data Essentials and goes beyond the techniques to include full data mining, data interpretation, predictive models and trend analysis. It will also introduce Machine Learning algorithms and tools such as R programming.

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| CSC438 | CREDITS: 3 | PREREQUISITE(S): CSC235 OR CSC262 OR CSC263 OR CSC275 |
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## Algorithms, Frameworks and Design Patterns for Artificial Intelligence

This course on algorithms and patterns for AI focuses preparing students to solve applied AI, machine learning, and deep learning problems in the field of artificial intelligence. This course prepares students to design, code, test, and improve AI systems using algorithm-driven designs to implement multiple AI Patterns. In this course, students will gain experience making decisions on when to modify or replace existing algorithms. The course also investigates how evaluation, and testing of base algorithms effects the larger overall project's scalability, maintainability and quality. This is a projects-based class where students will apply algorithms and patterns for AI in code they write to solve AI problems. Students build intelligent software bots to act anonymous and with each other to make swarms. These intelligent bots will be repurposed to work in software such as games, cooperative work, customer service bots, and expert decision systems. Creating Automatic coding system where code is writing code.

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| CSC442 | CREDITS: 3 | PREREQUISITE(S): CSC382 |
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## Secure Coding

This course will be founded on the CERT secure coding standards. It is designed to teach the practices needed to avoid vulnerabilities that can be exploited. This will address new code as well as mitigating issues in legacy code. This includes libraries, authentication, and encryption used to accomplish secure code. Securing against hijacking, sandboxing, and tools to aid in secure code will be addressed.

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| CSC444 | CREDITS: 3 | PREREQUISITE(S): CSC262 OR CSC263 OR CSC275 OR CSC373 |
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## Deep Learning

This course focuses on the fundamentals and basic application of deep learning. Students will build upon their previously acquired programming and deep learning to develop additional skills essential for coding their own basic neural networks. Students will design self-learning intelligent systems that learn from big data using APIs. This is a projects-based class where students will develop and apply new algorithms to neural networks in applications on real world case studies.

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| CSC445 | CREDITS: 3 | PREREQUISITE(S): CIS340, CSC211, CSC263 |
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## Advanced Web Programming



Introduction to web frameworks, such as Ruby on Rails. Installation of development frameworks. Configuration of web server and distributed database management systems environments. Software architecture patterns such as Model-View-Controller (MVC). Database-backed web applications, output display, and data validation paradigms.

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| CSC462 | CREDITS: 3 | PREREQUISITE(S): MAT220, CSC340 |
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## Data Visualization



This course is a cumulation of the data tools that have been learned in earlier courses. Students will build various visualizations of be datasets using techniques such as various dashboards designed for the target audience, real-time updates, graphical display of data, and/or use of external devices for these visualizations such as an AR display device.

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| CSC482 | CREDITS: 3 | PREREQUISITE(S): CSC484 |
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## Data Visualization Utilizing Data Science



In this course, you will learn to create data visualization graphs for small and Big Data. You will take data you have mined, or from a source which has mined it. You will then structure the data to provide a foundation to be used with data visualization tools. Once the data is structured in a meaningful way, it can be coupled with different data visualization tools. Using these tools, you will learn how to identify data trends and patters which can answer questions you were not able to before.

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| CSC484 | CREDITS: 3 | PREREQUISITE(S): CSC211, CIS175 |
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## Data Mining



In this course, you will learn to connect to and collect data from several different types of data stores using several methods. You will then learn how to store and structure data in a database depending on the scenarios it will be used for, such as machine learning and deep learning. The crux of this course will be to learn and use data mining to turn the data from many sources into useful information in a reasonable amount of time to be of use. Data scrubbing will also be taught.

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| CSC488 | CREDITS: 3 | PREREQUISITE(S): CSC377 |
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## Deep Learning Utilizing Data Science



Introduction to the history of Deep Learning to its current state today and beyond. In this course, we will explore a deep learning artificial neural network. We will then use deep learning tools to design and create our own Deep learning artificial neural network. In this course, we will be pulling from larger datasets and even deploy a small supercomputer to train our artificial neural network.

# DESIGN BUILD MAKE (DBM)

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| DBM100 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## 3D Build Tools

One of the most important skills of any maker is the ability to understand, design, and build a three-dimensional product. Whether that design will ultimately take form via a 3D printer, CNC machine, or a more advanced manufacturing method, being able to intricately model the shape and behavior of a component is critical in becoming an effective maker. In this course students will learn the key fundamentals of 3D design, including the history of computer aided design/build, key manufacturing methods used in industry, the use of case studies to model and demonstrate rapid prototyping principles, and a number of physical deliverables printed via the University's set of 3D printers.

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| DBM150 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Introduction to Maker Studio



Ideas evolve much more easily toward applications when they are given a physical form. Maker style technologies and techniques provide tools and pathways for designers from any of University of Advancing Technology (UAT's) programs to rapidly create versions of their ideas. Intended for non-majors, this course provides an introduction into the use of the most common entry-level maker equipment to create props and functional prototypes.

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| DBM215 | CREDITS: 3 | PREREQUISITE(S): DBM100 |
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## Prototyping Tools and Practices



This course focuses on creating functional prototypes from digital models using a variety of tools, techniques and materials as students explore the process of taking an idea from conception to a functional state. Students in this course will learn to use a variety of maker style tools representing differing levels of complexity to generate complex prototypes. Prototypes will be based on 3D models, where materials, their properties and their functional relationships with each other as a part of a working model play key roles in design decisions.

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| DBM240 | CREDITS: 3 | PREREQUISITE(S): (DBM215 AND RBT173) OR RBT307 |
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## Electromechanical Devices

Articulated and mobile devices depend upon electromechanical components for their functionality. This course provides students an overview of electromechanical devices, their appropriately matched applications and then gives students opportunities to incorporate them into project builds.

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| DBM360 | CREDITS: 3 | PREREQUISITE(S): RBT173 |
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## Wearable Technologies

Integrating digital technology that incorporates computing, display and Internet connectivity and is worn by humans is a rapidly emerging area of technology interest. In this course, students will learn current technology trends and capacities for wearable technology and apply them in completed projects.

# DIGITAL MEDIA AND DESIGN (DMD)

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| DMD150 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Digital Tools for Media and Design

This course is an overview of Adobe Illustrator and InDesign and its application in creating 2D vector-based graphics to market an individual, product or service. Using these tools, along with advanced Photoshop techniques, students will learn to create digital assets and concepts that convey good design practice, brand consistency and establishing a brand story to audiences via the Internet, social media platforms, device-based applications and media channels.

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| DMD200 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Digital Photography

This class concentrates on digital camera technology (lenses, sensors, ISO, depth of field, compression, digital media, color spaces, camera form factors and accessories) as well as technique (exposure, composition, color, contrast and more). With an emphasis on sculpting beautiful images—both still and in motion—this course trains students to become digital photographers, camera operators and camera assistants.

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| DMD210 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Vector Illustration

This course is an overview of the primary industry software tool (Adobe Illustrator) used in the creation of 2D computer graphics. Students will learn the commands and interfaces of industry-standard vector graphics software applications to create and manipulate 2D images.

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| DMD220 | CREDITS: 3 | PREREQUISITE(S): ART103 AND ART112 |
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## Principles of Interface Design

What is it that makes an engaging interface? What elements must be considered to hold user interest? This course explores the aesthetic and functional components associated with creating effective interfaces that encourage the user to be an active participant. Topics include product design, color and compositional ergonomics, and the design process as it relates to interaction with the content. Students will be involved in creating unique interface design solutions, as well as critiquing existing interfaces from a variety of media sources.

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| DMD230 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Your Digital Self

In our ever more connected world, your social media persona is often the first impression others will have of you. How do you put your best digital self forward? This course will help students navigate the major social media sites such as Facebook, Twitter, Instagram, YouTube, and more, as well as give them the tools to create their own websites, blogs, logos, and other elements of their digital identity.

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| DMD235 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Marketing for Digital Media

So you've made something awesome. Now what? How do you get people to see it, care about it, and share it with their friends? If you've done it right, you thought about these issues before you even started your project. In this course, students will learn how to identify the audience for a project, how to plan a campaign, leverage social media as well as traditional media, develop a marketing plan, and more.

## DIGITAL VIDEO AND ANIMATION (DVA)

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| DVA101 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Digital Film Fundamentals

This course familiarizes students with digital film production equipment while immersing them in the basic aesthetics of motion picture production. Hands-on projects involve scriptwriting, storyboarding, camera work, continuity, 3-point lighting, sound recording and basic video editing. Students work in groups to complete various technical exercises that familiarize them with terms and equipment while preparing them to produce complete digital film works.

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| DVA110 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Lighting and Environment Design

This course introduces the student to the theories and techniques used in lighting and scene design when creating a setting for digital film, animation or game projects. Script analysis and interpretation may be used to teach the principles of style, form and balance in scene design. Lighting subjects include the psychological effects of light and color. Students will be introduced to the basic lighting elements of visibility, selective focus, modeling and imparting mood to a scene.

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| DVA140 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Digital Audio Fundamentals

This course serves as a foundation for familiarizing students with the fundamentals of digital audio. Students will explore the theories and techniques necessary to record and edit sound for use in digital media. Topics covered include the perception of sound, waveform editing, digital signal processing sound effects, MIDI, voiceovers and music composition.

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| DVA145 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Intro to 3D Studio Max and Maya

As tools for game and digital artists, 3D Studio Max and Maya are widely used to create models, render them and ultimately animate them. This course provides students with a foundational overview of these industry 3D modeling and animation tool systems. Students will use this baseline knowledge as a launching place for later coursework that more deeply explores specific techniques and applications of 3D Studio Max and Maya.

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| DVA230 | CREDITS: 3 | PREREQUISITE(S): DVA140 |
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### Digital Audio Production

This course builds on the theories and techniques of Digital Audio Fundamentals by focusing on the synchronization of audio to picture. Students will take part in all aspects of audio post-production, including ADR, Foley, sound effects, ambiance and the mix. The final project will consist of a complete work in which all audio has been added in post.

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| DVA234 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Special Effects and Character Makeup

In this highly collaborative setting, students will learn makeup techniques for use in digital film and as a basis for facial animation. Basic corrective, old age and fantasy makeup techniques will be used as building blocks for character and effects makeup. Effects may include burns (gelatin build-up), scars, bleeding wounds and monster faces using wax and/or latex build-up.

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| DVA238 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Introduction to Directing and Producing

Action! This course will introduce the student to the collaborative world of directing and producing. Students will examine where and to what extent animation can be incorporated into the production. The director's approach to text analysis and articulation of ideas for interpreting and critiquing scripts and storyboards will be explored in developing an overall vision for a production. The producer's role of analyzing text for location scouting, budget and logistics will be examined. The course will also take the student through the basic tools of casting, scheduling and time management.

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| DVA241 | CREDITS: 3 | PREREQUISITE(S): DVA101<br>RECOMMENDED: THE130, DVA110, DVA238, THE310 |
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### Digital Film Production

Continuing the concepts begun in DVA101, this course introduces students to more advanced digital film production equipment and techniques, and emphasizes the production of complete works. Working in teams, students will produce various projects, including music videos, documentaries and short films, while also exploring additional aesthetic concepts such as depth of field, camera movement, and advanced lighting and sound. A greater emphasis is also placed on the pre-production stage for each type of project.

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| DVA254 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Motion Graphics

From Saul Bass to Kyle Cooper, from Psycho to Se7en and onward to every commercial in recent memory. Motion Graphics is the art and science of using design as a storytelling tool. Using text, images, graphic elements, animation, camera movement and music, students will explore the concepts, aesthetics and techniques that shape this fast-growing and ever-changing field. Practical exercises throughout the course are designed to develop software competency and assist students in building portfolio-quality complete works.

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| DVA265 | CREDITS: 3 | PREREQUISITE(S): DVA101 |
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## Innovative Camera Tools and Techniques

The camera platforms used to create video content are always changing to create new and innovative shots and content. Beyond the standard camera platforms, creators now have access to drones, 360 cameras, and robotic cameras. Beyond these, there are always new platforms and techniques evolving as well as custom created solutions for each project. This course explores these platforms from the technical and setup standpoint as well as the creative use, implementation, and utilization of these platforms within the context and needs of the project.

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| DVA274 | CREDITS: 3 | PREREQUISITE(S): DVA101 |
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## Digital Film Editing

Editing is the final rewrite—the last explosion of creativity that shapes what a viewer ultimately sees, hears and feels when watching a film. In this course, students explore the aesthetic development of this crucial cinematic art through film clips, readings, writing assignments and class discussions, while also completing practical exercises on industry-standard digital film editing software. Students are encouraged to collaborate with students in DVA241 to complete several projects, including music videos, documentaries and short films.

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| DVA320 | CREDITS: 3 | PREREQUISITE(S): DVA145 OR GAA220 |
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## Film CGI Pipeline

This course provides students with practice in the techniques of materials, lighting, and rendering in Max and Maya specifically in support of their digital film project requirements.

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| DVA334 | CREDITS: 3 | PREREQUISITE(S): DVA234 |
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## Special Effects and Character Makeup II

Building on the skills taught in the previous course, students will develop makeup techniques used in their digital film productions related to facial and body makeup. The use of prosthetics and animatronics will be more deeply practiced.

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| DVA335 | CREDITS: 3 | PREREQUISITE(S): DVA241 |
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## Digital Film Cinematography

This course will expose the student to the tools and techniques that will allow them to light a variety of stories. Students may use light kits, gels and filters to produce 3-point lighting and soft or hard lighting, and craft an array of different settings. Different styles of motion picture lighting will be analyzed and the student will have the opportunity to recreate the lighting used in specific scenes.

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| DVA353 | CREDITS: 3 | PREREQUISITE(S): DVA241 |
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## Visual Effects Compositing

Compositing is defined as the combination of two or more images into one final image. Students will explore the art, science and history of visual effects compositing from its earliest, celluloid-based origins through its most recent digital implementations in film and video production. Practical exercises throughout the course are designed to develop software competency and assist students in building portfolio-quality complete works.

# ENGLISH (ENG)

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| ENG101 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Composition I

(GE, Humanities)

This course is designed to present effective techniques in organizing, developing and writing academic essays that reflect a collegiate level of writing. The purpose of this course is to help students write correctly, clearly and thoughtfully. Students will receive an introduction to basic writing, thinking and reading skills required for success in college, with emphasis on fluency in analytical, rhetorical and creative non-fiction presentation.

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| ENG102 | CREDITS: 3 | PREREQUISITE(S): ENG101 |
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## Composition II

(GE, Humanities)

ENG102 is designed to introduce students to the essential language, theories and strategies of argumentation and research. The purpose of the course is to provide students with the tools necessary to develop arguments for specific audiences within specific rhetorical situations. Students will also develop their critical reading skills: analyzing, evaluating and critiquing the claims and evidence used by various authors. Finally, students will learn proper research skills and write an in-depth research essay/project.

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| ENG215 | CREDITS: 3 | PREREQUISITE(S): ENG101 |
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## Topics in Creative Writing

(GE, Humanities)

This course teaches the principles that result in effective original work: the creation of characters, plots, visual imagery and effective dialogue. Students are also expected to be able to provide constructive criticism to others. Students will be expected to produce original work as a final project.

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| ENG301 | CREDITS: 3 | PREREQUISITE(S): ENG102 |
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## Technical Writing

(GE, Humanities)

Effective professional communication is critical in the business environment, and can take the form of email, memorandum, user's manual, developer documentation or laboratory report. This course focuses on developing writing skills for technical audiences, emphasizing professional writing style, clarity, and presentation of information. Students will analyze, develop, and critique a variety of technical documents to practice and understand the role of the technical writer.

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| ENG305 | CREDITS: 3 | PREREQUISITE(S): ENG102 |
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## Mythology, Fable and Fairy Tale

(GE, Humanities)

This course will explore various definitions of myth, compare and contrast various mythologies from around the world and examine the ways myths have evolved over time. We will also study the mythological roots of the fairy tale, compare and contrast fairy tales from around the world, and explore how fairy tales have changed over time.

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| ENG310 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Science Fiction as Literature

(GE, Humanities)

This course will delve into selected readings in the literature of science fiction to show how the genre of science fiction has evolved from the dark fantasy narratives of the 19th century through the start of the 21st century. Students will examine key genre texts from the worlds of print, cinema, and the web.

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| ENG330 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Crime Literature

(GE, Humanities)

Crime Literature provides a survey of selected topics within the literature, cinema, and high-profile criminal cases of selected eras between the late Victorian era and the modern era. Texts and multimedia include Sherlock Holmes stories, an Agatha Christie novel, hardboiled and film noir masterpieces, television procedurals, and contemporary thrillers. Emphasis will be placed on important themes, authors, and texts of the genres of mystery, crime fiction, and detective stories

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| ENG340 | CREDITS: 3 | PREREQUISITE(S): ENG215 |
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## Advanced Creative Writing

(GE, Humanities)

This course builds upon concepts taught in ENG215 Topics in Creative Writing to further advance creative writing skills of students. This course teaches the principles that result in effective original work: the creation of characters, plots, visual imagery and effective dialogue. Students are also expected to be able to provide constructive criticism to others. Course may combine beginner and advanced students to maximize mentorship and critical abilities of advanced students.

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| ENG345 | CREDITS: 3 | PREREQUISITE(S): ENG101 |
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## Gothic Literature

(GE, Humanities)

Gothic Literature is the literature of horror and terror, the stuff of bad dreams and nightmares, ghost stories and hauntings. This course surveys the evolution of Gothic texts since the late 18th century, beginning with the earliest examples, and then moves forward through 21st century variations. Texts for this class include novels, short stories, films, and television shows, including the stories of Poe and Lovecraft, and much more. Students may create their own gothic works as part of this class.

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| ENG350 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Fantasy Literature

(GE, Humanities)

This course will examine key fantasy literature texts in the form of novels, short fiction, film, TV series, and other media to show how the genre of fantasy has evolved toward its current incarnations. Students will engage in analytical and creative contexts to seek an understanding of how works within this genre and its subgenres play upon (and occasionally subvert) audience expectations through themes, characters, narrative formats, and literary and artistic techniques.

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| ENG412 | CREDITS: 3 | PREREQUISITE(S): ENG102 |
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## The Graphic Novel

(GE, Humanities)

This course will consider a selection of contemporary graphic novels and related theories of visual narratives. Until recently, this genre of literature has been dismissed as childish, or even worse, as "low culture" unworthy of critical consideration. Throughout the class, we will test theories with a variety of projects and some challenging (but intriguing) readings. We will also place each work in its unique historical and "social context."

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| ENG415 | CREDITS: 3 | PREREQUISITE(S): ENG102 |
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## Selected Topics in Literature

(GE, Humanities)

This course is designed to explore a defined area of literature, including individual authors, literary movements, issues in popular culture and various genres. The in-depth study may include works from both Western and non-Western cultures. Contents and methods vary with instructors and from semester to semester. Students will create portfolio-level project outcomes in this class.

# ENTREPRENEURSHIP (ENT)

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| ENT305 | CREDITS: 3 | PREREQUISITE(S): BUS200 |
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## Entrepreneurial Operations

This course focuses on the research, planning and operation of an entrepreneurial venture. Students will explore the benefits of utilizing research and planning resources such as SBA, SCORE, IRS, Census Bureau, Bureau of Economic Analysis and Bureau of Labor Statistics. Financial topics will include acquiring start-up capital, budgeting, forecasting, accounting, taxes, insurance and maintenance of business records. In addition, this course will provide an overview of human resource operations.

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| ENT405 | CREDITS: 3 | PREREQUISITE(S): ENT305 |
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## Business Planning for Entrepreneurs

One of the most important cornerstones of starting a business is the business plan. This capstone course will help students create a focused, well-researched business plan with all its essential ingredients that should serve as a blueprint. It should detail how the business will be operated, managed and capitalized. Topics will include creating and communicating vision, mission, goals and objectives. Additional topics will include business names, licensing, legal structures, incorporation, location and resources. Students will focus on both strategic and tactical planning while emphasizing creating and continuously enhancing an overall management system to guide the entrepreneurial venture as it grows.

# FITNESS (FTN)

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| FTN201 | CREDITS: 1 | PREREQUISITE(S): INSTRUCTOR APPROVAL |
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## Special Topics Elective

This course will explore a special topic in a field otherwise not related to University programs. Subjects tend to relate to the particular cultural interests of the student community. Past Special Topics courses have included swordplay, yoga and martial arts.

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| FTN202 | CREDITS: 2 | PREREQUISITE(S): INSTRUCTOR APPROVAL |
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### Special Topics Elective

This course will explore a fitness special topic in a field otherwise not related to University programs. Subjects tend to relate to the particular cultural interests of the student community.

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| FTN203 | CREDITS: 3 | PREREQUISITE(S): INSTRUCTOR APPROVAL |
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### Special Topics Elective

This course will explore a fitness special topic in a field otherwise not related to University programs. Subjects tend to relate to the particular cultural interests of the student community.

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| FTN210 | CREDITS: 1 | PREREQUISITE(S): NONE |
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### Yoga

Balance mind and body while increasing strength and flexibility. This physical education course is geared toward giving the student an opportunity to calm their busy minds through slow and deliberate body movements and development of breath control. Yoga is suitable for all body types as part of the experience is learning to listen to the wisdom of the self. This course may be taken multiple times.

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| FTN211 | CREDITS: 1 | PREREQUISITE(S): NONE |
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### Swordplay

The purpose of this course is to provide an overview exposure to competition and recreational swordplay. The work will in part be aimed at the development and enjoyment of physical skills in working with a variety of sword and martial art equipment and learning the basic techniques of movement, attacks, parries and drills.

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| FTN222 | CREDITS: 1 | PREREQUISITE(S): FTN211 |
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### Advanced Swordplay

The purpose of this course is to provide an advanced exposure to competition and recreational swordplay. Students will be required to attend one competition in the Phoenix area. Coursework will in part be aimed at the development and enjoyment of physical skills in working with a variety of sword and martial art equipment. Students will learn the basic techniques of movement, attacks, parries and drills. This course will also focus on historical swordplay and theatrical swordplay. Choreographed skits will be a major element of this class.

## GAME ART AND ANIMATION (GAA)

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| GAA105 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Game Art and Animation Fundamentals

Game Art and Animation is built on a foundation of drawing, graphic design and art. This course is designed to build that foundation allowing the student to build a base of visual communication and artistic theory. Concentrations on composition, color, drawing, observation and traditional design allow the student to develop a personal aesthetic and style linked to sound artistic principles. This course uses both traditional and digital techniques to create a basis for Game Art and Animation projects.

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| GAA110 | CREDITS: 3 | PREREQUISITE(S): GAA105 OR (ART112 AND ART121)<br>COREQUISITE(S): ART233 |
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### Introduction to Game Art and Animation

This course introduces the student to industry-standard 3D game art and animation for video games. Students will recognize, differentiate, analyze, and create game art assets that are used in 3D game projects. Areas of emphasis include: game art, concept, box modeling, UV unwrap, texturing, rigging, animation, rendering, and development of an online portfolio.

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| GAA220 | CREDITS: 3 | PREREQUISITE(S): GAA110<br>RECOMMENDED: ART234 |
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### 3D Modeling Environments and FX

This class will explore modeling game environments and special effects using different industry-standard modeling procedures and will discuss when each is appropriate. Students will study organic and hard surface modeling. Areas of emphasis include: sculpting tools, box modeling, Boolean, lofting, modifiers and deformers. Students will complete exercises that build toward a final project.

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| GAA230 | CREDITS: 3 | PREREQUISITE(S): GAA110<br>RECOMMENDED: ART233 |
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### 3D Modeling Characters and Vehicles

This course will explore modeling game characters and vehicles using various industry-standard modeling procedures and will discuss when each is appropriate. Students will study organic and rigid surface modeling techniques and pipelines. Areas of emphasis include: Polygon, Sub-division, and NURBS surfaces with sculpting tools, box modeling, extruding, lofting, modifiers and deformers. Students will complete exercises that build toward a final project.

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| GAA240 | CREDITS: 3 | PREREQUISITE(S): GAA110<br>COREQUISITE(S): GAA220, GAA230 |
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### Game Texturing

This course focuses on the creation of textures for digital games. Students will learn how to create consistent and efficient texture maps from scratch as well as from photo references. Proper mapping and application procedures will also be reviewed. Assignments will help students build their own texture library to increase their production speed.

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| GAA320 | CREDITS: 3 | PREREQUISITE(S): GAA220<br>RECOMMENDED: GAA240 |
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### Environmental and FX Animation

Students will develop capacity in the process of environmental and special FX animation techniques needed for current game animation trends. The utilization of particle systems and game engine import/export strategies will be addressed. The development of common and custom animations for dynamic level objects and game environments will be emphasized. The use of physics-based, dynamic animation systems will also be explored in this course.

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| GAA325 | CREDITS: 3 | PREREQUISITE(S): GAA240 |
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### Materials, Shaders and Lighting

Students will explore procedural and non-procedural materials, textures and shaders as they immerse themselves in the creation of natural surfaces for game engines. Proper lighting techniques for game environments and material shaders will be examined. The application of materials and specialized mapping techniques to achieve realistic surfaces for game art assets will be emphasized.

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| GAA330 | CREDITS: 3 | PREREQUISITE(S): GAA230<br>RECOMMENDED: GAA240 |
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### Characters and Vehicles Animation

This course will introduce basic rigging and animation principles and techniques for 3D character and vehicle models. Students will learn fundamental rigging and animation toolsets using industry-standard tools. Course topics include: custom bone setup, IK/FK, constraints, and keyframing, looping cycles and spline animation. Students will rig and animate a character and vehicle which they created in a previous modeling course.

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| GAA360 | CREDITS: 3 | PREREQUISITE(S): GAA110 |
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### UI Design and Animation

This course will build on the student's skills in creating interactive and visually compelling menus and HUDs as seen in today's high-profile titles. The student will script design solutions and problem solve communication issues using industry-standard 2D and 3D UI animation software and scripting tools. Assignments will emphasize the visualization and creation of interface transitions with stylish animation.

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| GAA420 | CREDITS: 3 | PREREQUISITE(S): GAA320 |
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### Advanced Game Environment Creation

Current AAA games feature amazing environments that drip with atmosphere and stunning interactive details. Throughout this course students will research the latest trends in level modeling and apply their skills in the development of advanced architectural and organic models needed for current game development. Assignments will lead the student to create a complete game environment that is ready to add to their portfolio.

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| GAA430 | CREDITS: 3 | PREREQUISITE(S): GAA330 |
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## Advanced Character Rigging and MoCap Animation

Students will learn the importance of good planning and problem solving as they relate to character design for 3D animation. Course topics will cover: character setup, inverse kinematics, joints and bones, deformers, set-driven keys, bipedal and quadruped setups. Students will be immersed in hands-on motion capture exercises and explore advanced techniques for blending actions and mapping data to multiple characters. Students will create a fully functional character rig and apply animation to it.

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| GAA440 | CREDITS: 3 | PREREQUISITE(S): GAA330 |
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## Advanced Game Character Creation

Never in the history of game development have characters and vehicles been so realistic in appearance. Students will explore and apply techniques to create hyper realistic game characters, creatures and vehicles used for Triple-A titles. Tools come and go; the essence of what makes a great character modeler is artistic knowledge and a critical artistic eye. Anatomy, anthropomorphic creature construction and automotive design are emphasized during this course.

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| GAA490 | CREDITS: 3 | PREREQUISITE(S): PDS300 |
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## Industry Professional Development

This course completes the innovative style and generalist/specialist portfolio process providing guidance and structure for the formal presentation of the students work. Students will passionately and clearly articulate the defense of their innovative style and portfolio work through public presentations. Students entering this class are expected to have completed all works included in their portfolio and have their innovation style fully developed for implementation into a reel.

# GAME STUDIES (GAM)

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| GAM101 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Introduction to Game Design

Whether the goal is to become a game designer, artist or programmer, this course is a path into the world of video game production. Students will explore what career paths lay ahead in the respective areas of game development through an understanding of the game design process and develop awareness of the many positions within the game industry. By learning fundamental design and visualization techniques needed to express complex game ideas, students will apply professional documentation techniques to their projects. Students will also learn how to convert their own game playing skills to tools used to analyze popular games and break down game play elements to discover what makes the greatest games tick.

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| GAM113 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Introduction to Game Tools

Game development toolkits are the basis for industry games both casual and large. This course introduces students to working in a toolkit environment by instructing in how games of all sizes and complexities are built within a toolkit. This course also provides practice for students as they use the most foundational tools to build game projects.

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| GAM125 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Introduction to Game Development

The process of developing games is an extensive process and requires developers to understand the many intricacies of development. This course aims to teach the full process of developing a game, from the pre-production stages to the final release and support of a game. The class will cover the basics of production, as well as the various positions and their duties on a game development team. Students will take part in mock game projects where they will attempt to fulfill all the needs of a mock game studio to learn the many parts of the development process.

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| GAM150 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Evolution of Electronic Games

This is a critical review of the technology and design history of video games, from the first all analog machines to the powerful console systems of today. This course will discuss primary innovators and historical figures of the industry and the origins of game design elements such as scoring, risks and rewards, level design, interacting with AI and interface design. Through analysis and example, students will look at the development of the industry, the formation of the classical game genres, the explosion of game-related technology and the possible futures of the field. These design lessons will be applied to simple projects to reinforce how game design elements from three decades ago still shape our industry and its products.

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| GAM170 | CREDITS: 3 | PREREQUISITE(S): GAM101 |
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## Game Design Workshop I

This course explores the invention, revision and presentation of game design ideas in an atmosphere similar to a creative writing workshop. Students will work singly and in small groups to develop game ideas, compare and contrast them with published games and then create focused design documents for potential future production. The end-product will be several robust, polished game designs that have been tested by the most critical audience—your peers.

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| GAM175 | CREDITS: 3 | PREREQUISITE(S): ENG101 AND GAM125 |
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## Game Testing and Analysis

The best game design and technology will fail if bugs, glitches, difficulty and gameplay balance issues mar the final product. As games grow more complex, the role of the game tester has been elevated from entry-level peon to a vital role in the development process, and entire third-party companies are being formed for the outsourcing of game testing. In this course students will learn to analyze, troubleshoot, report and document problems with game technology, controls, balance and ease of use. With an emphasis on clarity, brevity and depth of analysis, students will beta-test student projects and commercial public betas, and produce reports, analysis and suggestions for future improvements.

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| GAM200 | CREDITS: 3 | PREREQUISITE(S): ENG101 AND GAM170 |
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## Critical Game Studies

This course is an introduction to advanced critical techniques and approaches to game design, analysis of games and game theory. Using techniques of critical theory, ludology and semiotics, students will explore the structure of games, interaction with the user and how games balance rules with freedom and risk with reward. This course will also delve into interface design, user control issues, data representation for the gamer and feedback loops. Present and future game genres will be examined and compared and contrasted among different platforms and styles of play.

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| GAM218 | CREDITS: 3 | PREREQUISITE(S): GAM113 OR VRT101 |
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## Game Scripting for Designers

Game scripting is a basic requirement for the development of games of all genres and sizes. From basic level scripting to AI, games have many layers of high-level scripting in them. This course aims to teach how a designer will integrate their scripts into a game, and how they can have a direct impact on the game's direction and play through their high-level scripting. Through the class, the students will use multiple scripting languages to directly modify pre-existing games. Game projects will include standalone projects and mods to previous games.

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| GAM235 | CREDITS: 3 | PREREQUISITE(S): GAM218 |
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## Game AI Concepts

Artificial Intelligence is at the core of the modern interactive experience in video games. This course is a survey of the many approaches to creating realistic, interesting behavior from a design point of view, while experimenting with concepts such as pathfinding, sensory systems, flocking, scripted events, heuristics and genetic algorithms. Students will use a variety of tools to create functioning projects that demonstrate class concepts and study various game AI systems and theories.

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| GAM310 | CREDITS: 3 | PREREQUISITE(S): GAM218 |
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## Level Design

This project-oriented class involves producing game levels for a variety of 2D and 3D engines with a focus on pacing, risks vs. rewards, designing for difficulty level and storytelling. Students will create and concept several projects and learn basics of geometry, texturing, lighting and interactive scripting as well as playtesting and optimizing for various engines and environments.

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| GAM351 | CREDITS: 3 | PREREQUISITE(S): ENG102 AND GAM200 |
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## Writing for Interactive Games

Writing for the interactive environments of current and future video games poses complex challenges that are unique to the field. As the consumer base grows more sophisticated, gamers are demanding complex, believable worlds in which their decisions have an impact. This course explores best practices for creating interactive stories, quests, characters and worlds that flesh out the bare mechanics of game design. Students will create interactive projects and design scenarios with dialog, branching choices, backstory elements and intellectual challenges, as well as look towards the future of game storytelling.

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| GAM352 | CREDITS: 3 | PREREQUISITE(S): GAM200 |
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## Game Systems Design

In this course, students will take on the role of a game system designer. Game system designers are responsible for developing the core gameplay mechanics and systems of games. Students will design game mechanics and systems for new and existing games across multiple genres and platforms. Students will also learn how to model complex systems and economies both visually and mathematically and apply systems thinking to balance game systems.

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| GAM370 | CREDITS: 3 | PREREQUISITE(S): GAM281 |
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## Game Design Workshop II

This course focuses on game pitching, prototyping, and execution. Within this course students will create pitches and prototypes designed to build teams and studio level projects. Students will prototype game concepts in a rapid development environment with an emphasis on originality, playability, and iterative development. Students will also plan and host a rapid game development event.

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| GAM385 | CREDITS: 3 | PREREQUISITE(S): GAM310 |
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## Casual Game Design

Accessible, easy-to-play (but difficult-to-master) games are the bridge by which many customers enter the video game market, and an increasingly large pool of gamers make casual games their genre of choice. The casual game must be elementary in design but deep in execution; it must fit the genres and platforms of choice for casual gamers and give both the novice and the expert a memorable challenge. In this course we'll design, prototype and build casual games that move beyond Tetris and Solitaire clones and advance the genre as a whole.

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| GAM425 | CREDITS: 3 | PREREQUISITE(S): GAM310 |
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## Advanced Level Design

Having mastered the basics, students in this course will apply level design principles to the creation of entire game environments, interactive elements and objects, storytelling through level design, and texturing and lighting. The emphasis will be on using advanced game engines and their toolsets and may involve expert topics such as texturing with shaders, cut scenes, scripted events and large-scale environments.

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| GAM465 | CREDITS: 3 | PREREQUISITE(S): PDS300 |
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## Game-A-Week

Rapid-prototyping, the creation of a small playable game that proves or disproves a design concept, is a common stage in the professional game development process. This course aims to build up a student's rapid prototyping skills and provide students with experience in starting and finishing games. Students will produce, publish, and present a portfolio-quality game each week of the course, requiring students to not only master the use of their game development tools, but also learn to hone their project scope, quickly distinguish promising game design concepts, and to sharpen their ability to be creative "on demand."

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| GAM495 | CREDITS: 3 | PREREQUISITE(S): PDS300 |
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## Industry Professional Development

This course completes the innovative style and generalist/specialist portfolio process providing guidance and structure for the formal presentation of the students work. Students will passionately and clearly articulate the defense of their innovative style and portfolio work through public presentations. Students entering this class are expected to have completed all works included in their portfolio and have their innovation style fully developed for implementation into a reel.

# GAME PROGRAMMING AND ENGINEERING (GPE)

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| GPE104 | CREDITS: 3 | PREREQUISITE(S): CSC102 |
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## Introduction to Game Programming

Recommended for students with little or no prior programming experience. Students will use a game engine to study the basics of computer programming: variables, data types, looping, conditional logic, functions, arrays, types, and other basic concepts. The ability to explore these concepts prior to learning a more complex language such as C++ allows the student to learn game concepts without a language course and prepares the student for future courses in this program during the first year. Students will gain valuable programming experience by writing simple tutorial-based games.

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| GPE205 | CREDITS: 3 | PREREQUISITE(S): GPE104 |
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## Gameplay Programming Concepts

Gameplay Programming Concepts teaches students the most important theories and concepts in game programming. Students will be exposed to major game mechanic fundamentals that are expressed in multiple games across several genres. There is a strong focus on analysis and discovery learning. Those taking this class will be expected to observe existing mechanics and attempt to reproduce them both in documentation and in code. The course makes use of an existing game engine to focus on gameplay mechanics with the end goal of producing a playable game.

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| GPE275 | CREDITS: 3 | PREREQUISITE(S): GPE205 |
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## Mobile Game Programming

Mobile games are a lucrative industry that is still in a state of rapid growth with tens of millions of users as a potential market for games, all delivered wirelessly on a royalty basis. This course teaches how to develop games for mobile platforms using appropriate languages and toolkits. Students will explore the mobile hardware and learn about the specific techniques and challenges present in developing a game for a small screen and limited user input capabilities.

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| GPE303 | CREDITS: 3 | PREREQUISITE(S): CSC382 |
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## Applied Game AI Concepts

Quality implementations of artificial intelligence can make or break a game. This course will synthesize the theories and concepts of artificial intelligence with the skills of game programming. Students will program a wide variety of artificial agents utilizing a variety of traditional, modern and theoretical techniques. The student will apply algorithms for pathfinding, strategy, personality and other behaviors. Player interactions with these behaviors will be examined to provide challenging, balanced and enjoyable gameplay.

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| GPE310 | CREDITS: 3 | PREREQUISITE(S): CSC215 AND GAM218 |
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## Visual Programming for Games

Modern game engines provide development tools for the game development team such as game editors and visual scripting systems. Game programmers must build and maintain these tools. This course explores the integration of visual scripting as part of the game development pipeline. Within this course, you will use and extend the visual scripting system of a modern game engine to provide functionality for game development projects.

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| GPE333 | CREDITS: 3 | PREREQUISITE(S): GPE340 |
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## Scripting Integration

High-level scripting languages allow for rapid development, content creation and interactive events, and drives all of today's professional game engines and tools. Used for both game logic and automation of tools, scripting has become a crucial element of game production. Some scripting languages are so well integrated with a given game engine that users create an entire game with script code. Students will learn one or more scripting languages during this course. Projects will include stand-alone script programs as well as game engine scripting projects.

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| GPE338 | CREDITS: 3 | PREREQUISITE(S): GPE205<br>RECOMMENDED: CSC262 |
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## Advanced Gameplay Programming

This course teaches students advanced theories and concepts in game programming, such as delegates, interfaces, namespaces, coroutines, threading, and event handling. The course will also focus on best practices and methods for optimizing code, not only at run time, but also focusing on optimizing for ease of development. This course makes use of an existing game engine to focus on gameplay programming techniques with the end goal of producing a playable game.

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| GPE340 | CREDITS: 3 | PREREQUISITE(S): CSC215 AND GPE104 |
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## Programming for Game Engines

This course introduces the fundamentals of game engine programming by customizing and enhancing an existing framework. Students will learn the core concepts of engine programming. Symptoms of taking Programming for Game Engines may include: a greater understanding of frame rates, synchronization, timing, 2D and/or 3D graphics rendering, timed animation, user input, multiplayer, physics, collision detection and the most common algorithms used in game development. Many of these fundamentals will be implemented into a working engine from which playable games may be developed.

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| GPE341 | CREDITS: 3 | PREREQUISITE(S): CSC275 AND GPE340 |
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## Game Tools Development

A game is only as good as its tool chain. Today's games are extremely complex and the amount of data required to produce them can be overwhelming, thus the need for efficient data and asset management tools. In the modern games industry, almost every aspect of game development requires several custom-designed tools. The engine, art, asset management, editors, physics, AI and sound editors are all tools that create a game. This course teaches fundamentals of game tools development, including the theory behind these tools and the practical application of that theory. Basic editor creation and user-interface programming are also covered.

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| GPE361 | CREDITS: 3 | PREREQUISITE(S): GPE275 AND GPE338 |
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## Multiplatform Game Programming

This course will examine the technical aspects of multiplatform development. Developing for multiple platforms is a development challenge as well as an opportunity. Current generation games are often released on multiple platforms simultaneously creating a need for clean efficient code bases that can be moved from system to system. Code, engines and development strategies need to be developed to allow the constraints of each platform to be met. This course will expand on your gameplay programming emphasis and explore how these systems are implemented on different platforms, hardware and systems.

# HUMAN COMPUTER INTERACTION (HCI)

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| HCI101 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Introduction to Human Computer Interaction

This course will cover some of the core concepts in HCI relating to users and technology use. These include the notions of the interface, interactivity and interaction. Traditional ways of characterizing these aspects of the relationship between technology and users will also be examined in terms of various usability aspects.

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| HCI102 | CREDITS: 3 | PREREQUISITE(S): HCI101 |
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## Human Factors

This course will focus on human physical and cognitive capacities and how an understanding of them should inform the design of such everyday things as tools, information displays and computer software design. Among other topics, it will discuss the interaction of humans with computer systems, a domain generally known as Human Computer Interaction. The goal is to help students learn and apply cognitive science theory and principles to increase the convenient use of man-made objects and systems, to reduce errors, and to increase productivity and improve safety by using such tools and systems.

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| HCI215 | CREDITS: 3 | PREREQUISITE(S): HCI101 |
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## Designing Human Computer Interfaces

This course tackles the challenges of developing interfaces with multiple technologies and design requirements. Through this course, the student will be exposed to the tools needed to create human computer interfaces, analyzing the strengths and weaknesses of each of the technologies. Students in the course will apply the tools and techniques of interface design to solve current and future interface development challenges.

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| HCI250 | CREDITS: 3 | PREREQUISITE(S): HCI101 |
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## User Experience Design and Testing

Often developers overlook the importance of the customer experience when using their products. As a result, it is becoming increasingly important for companies to provide customers with positive user experiences through fundamentals like navigation, search, usability and identifying the needs of the real user as well as that of the business. This course teaches students user experience design process from start to completion using appropriate design patterns, developing user personas, conducting usability evaluations within the cultural context and producing prototypes for further design research.

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| HCI320 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Gender and Technologies

Men and women are different. Gender factors influence how individuals approach and use technologies. Gender factors also influence the physical form that technologies take to be responsive to the physical differences between men and women. This course explores gender differences and teaches how they can be applied during the design and build process.

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| HCI335  | CREDITS: 3 | PREREQUISITE(S): NONE   |
| <b>Designing Software Interactions</b>   |            |                         |
| This course covers factors associated with building interfaces for the major categories of software platforms (mobile, web, desktop) along with factors associated with major types of software (productivity, eCommerce, entertainment). Students will learn, evaluate and prototype interactions for these differing interfaces.  |            |                         |
| HCI350  | CREDITS: 3 | PREREQUISITE(S): NONE   |
| <b>Designing Device Interactions</b>   |            |                         |
| Integration of technology is changing how we interact with devices. This course covers trending interface technologies, such as the use of touch pads with gesture recognition, and their emerging application spaces (cars, home IoT). Students will learn, evaluate and prototype interactions for these differing interfaces.  |            |                         |
| HCI470  | CREDITS: 3 | PREREQUISITE(S): HCI215 |
| <b>Emerging Interface Technologies</b>   |            |                         |
| As technology grows and changes, so does the need for humans to interact with it in new and natural ways. The future of interfaces is always in motion as technologists discover new and intuitive ways to work with technology. This course will explore and apply emerging interface technologies and examine how these technologies will impact the development of technology, software and products as well as how they impact the interactions with the users who use them.  |            |                         |
| HCI490  | CREDITS: 3 | PREREQUISITE(S): HCI101 |
| <b>Special Topics in HCI</b>   |            |                         |
| Special topic classes in HCI will study selected topics in Human Computer Interaction providing opportunities for the study of material not covered in current course offerings. Special emphasis will be on emerging areas. Topics vary from semester to semester. Students will be encouraged to work within a multidisciplinary team in the class. Some of the topics of this class may be physical computing for creating interactive installation spaces and design prototypes that extend beyond the limitations of the computer mouse, keyboard and monitor screen; perceptive computing, which is a new field that combines visual cognition and computer visualization for massive data analysis such as NASA satellite data processing, behavior measurement from head-mounted video or surveillance video systems; or develop dynamic and engaging computer screen-based interactive projects. The topic selection will be contingent on the school's resources. |            |                         |
| <b>HISTORY (HIS)</b>  |            |                         |
| HIS220  | CREDITS: 3 | PREREQUISITE(S): NONE   |
| <b>American History</b>   |            |                         |
| (GE, Social Sciences)<br>This course covers American history from the period of colonial settlement through the 20th century. The course is topical, covering key themes and areas of American history that led to major economic, cultural and technological changes.  |            |                         |
| HIS230  | CREDITS: 3 | PREREQUISITE(S): NONE   |
| <b>Survey of American History from Colonial Era to The Civil War</b>  |            |                         |
| (GE, Social Sciences)<br>In this course, we will explore social, cultural, intellectual, economic, and diplomatic history as we embark on a journey to more deeply understand the United States, its inhabitants, and its global context.   |            |                         |
| HIS240  | CREDITS: 3 | PREREQUISITE(S): NONE   |
| <b>Survey of American History from The Civil War to the 20<sup>th</sup> Century</b>   |            |                         |
| (GE, Social Sciences)<br>In this course, we will explore social, cultural, intellectual, economic, and diplomatic history as we embark on a journey to more deeply understand the United States, its inhabitants, and its global context.   |            |                         |
| HIS300  | CREDITS: 3 | PREREQUISITE(S): NONE   |
| <b>The World Wars: 1914-1945</b>  |            |                         |
| (GE, Social Sciences)<br>This course covers World Wars I and II from a tactical, political, strategic and technological perspective. In addition, the course analyzes not only how these wars shaped the 20th century but also the world we live in today.  |            |                         |

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| HIS305 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## 20<sup>th</sup>-21<sup>st</sup> Century Innovation

(GE, Social Sciences)

This course examines the role of technology in the 20<sup>th</sup> and 21<sup>st</sup> centuries and how it affects us culturally. Key themes include invention of new technologies and debates over the advantages and drawbacks of industrialization, mass production and information technologies. Students participate in a variety of innovative activities designed to understand the changes that took place socially and economically because of these innovations.

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| HIS315 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Aerospace in America

(GE, Social Sciences)

This course will use NASA (and its predecessor NACA) as a lens to explore United States history in the 20<sup>th</sup> and 21<sup>st</sup> centuries. Aerospace history becomes the gateway for understanding the essential social, cultural, political, technological, scientific, and military developments from 1903 (the year of the Wright Brothers' first flight) to the present. This class emphasizes United States and aerospace history, and how they have influenced and shaped each other. Students will learn the early history of flight through WWI, analyze the history of aviation in the 1920s (business themes) and 1930s (adventure and innovation themes), and explore air power through the end of WWII with the dropping of the atomic bomb. The class places emphasis on the Cold War with the launch of Sputnik, the creation of NASA one year later, and the political motivation behind our journey to the moon. The course compares the knowledge gained from the low-Earth orbits of the Space Shuttle program, with the unmanned voyages into our solar system. Students will conclude with an investigation into the current private attempts to launch humans into space and the dream of inhabiting Mars.

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| HIS320 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Classical World

(GE, Social Sciences)

This course will focus on the major social, political, intellectual, and technological developments in the Classical World, which encompasses the ancient Greek and Roman civilizations. The course will cover the time periods from Bronze Age Greece to the fall of the Roman Empire in the 5th Century AD. Throughout the course, students will examine the impact of key events that shaped society in Classical World civilizations. In addition, students will gain an understanding of the methods that historians and archeologists utilize to draw conclusions about ancient civilizations that left behind little or no written sources in the historical record. Finally, this course will also consider the relevance of the Classical World to later civilizations and to 21st century Western society.

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| HIS330 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## The Revolutionary Era

(GE, Social Sciences)

This course will examine the Revolutionary War Era in the British colonies and in the early days of the United States. Topics this course will cover include the Enlightenment and the French and Indian War and their impact on the American Revolution. Additionally, the military history of the Revolutionary War will be examined and students will gain an understanding of why the Americans emerged victorious over the seemingly more powerful British military. The class will also cover the history of the Constitution and will critically examine the Constitution and how it can be interpreted in our modern times.

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| HIS331 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## The Vietnam Era

(GE, Social Sciences)

This course is designed to present a comprehensive overview of the period in which the United States was engaged in conflict in Vietnam. Some critical aspects include: how the United States became involved in Vietnam, the involvement of each US president and his war policies, the ground war, the air war and the anti-war movement and counterculture. Finally, the course analyzes the lasting effects of the Vietnam War.

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| HIS340 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Cold War Era

(GE, Social Sciences)

This course will examine American history during the Cold War Era of 1945-1990. Topics this course will cover include the origins of the Cold War, the impact of the Cold War on American politics and foreign policy, and the proxy wars of the Cold War. Additionally, students will learn about American popular culture through literature, music, film, and television.

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| HIS350 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Civil War and Reconstruction

(GE, Social Sciences)

This course examines the US Civil War and the period of Reconstruction following the conflict. Key themes include experiences of the common soldier, technological innovations used during the war, tactical and strategic overviews of the conflict, social upheavals created by the conflict and the lasting effects the war had on the United States.

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| HIS355 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## History of Broadcasting

(GE, Social Sciences)

This course will provide a general overview of American broadcasting from the age of radio, through the emergence of television, to the proliferation of the internet and digital media. We will examine broadcasting as an essential element to American cultural history by contextualizing U.S. broadcasting media amidst major social and cultural changes. Finally, we will also examine the various ways people have sought to understand the impact of radio and television throughout American history.

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| HIS360 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## The Twilight Zone and Postwar America

(GE, Social Sciences)

Was postwar America a dream or a nightmare? By using *The Twilight Zone* as well as other popular culture products, we will explore a wide array of historical issues relating to World War II, consumerism, Cold War paranoia, gender, race, suburbanization, family life, and technology. We will discuss the capacities and limitations of television and popular culture, namely how TV can reflect but more frequently refracts, real life experiences. In this way, we will look more deeply as to how popular television hinders our understanding of history when taken at face value, but can offer fresh insights when critically analyzed and returned to its original context.

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| HIS415 | CREDITS: 3 | PREREQUISITE(S): ENG102 |
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## Selected Topics in History

(GE, Social Sciences)

This course is designed to explore a defined area of history, including specific eras and historical topics. The in-depth study may include topics from both Western and non-Western civilization. Contents and methods vary with instructors and from semester to semester. Students will create portfolio-level project outcomes in this class.

# HUMANITIES (HUM)

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| HUM150 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Introductory Topics in Humanities

(GE, Humanities)

This course will survey topics in the Humanities, including literature and film, popular culture and the arts, religion and philosophy, and Western and non-Western cultural productions, with emphasis on major ideas and concepts of the areas explored. Emphasis will be placed on creative project building and collaborative explorations of unique topic areas. Contents and methods vary with instructors and from semester to semester.

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| HUM160 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Art of the Comic Book

(GE, Humanities)

The visual evolution of comics has synchronicity with the cultural contexts in which they are produced. From the earliest newspaper strips to contemporary graphic novels, this course will study the visual language of comics as it evolved through time. Students will be encouraged to produce both critical and creative responses to the texts studied, emerging with a deeper appreciation for comics as an art form.

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| HUM305 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Countercultures

(GE, Humanities)

Countercultures will examine major countercultural movements of the 20th century and explore their social, political, artistic roots and impact. Topics will include the Beat Generation, anti-war movements and drug subcultures of the 1960s-1970s, and Punk rock. Major artists and their works will be explored, as well as their impact on popular culture and the creation of subcultures. Students will read novels, lyrics, and poetry, watch films of the eras and listen to selected recordings of music from these periods to appreciate countercultural expressions.

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| HUM310 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Contemporary Themes in Humanities

(GE, Humanities)

This course will introduce students to contemporary themes in the humanities. Topics will explore issues facing contemporary audiences as a result of the rise in new modes of expressions and the developments within the arts from innovators and creators.

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| HUM320 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## The American Dream

(GE, Humanities)

The concept of the American Dream has a rich tradition in the American consciousness, carrying with it both the Idealism and spirit of national self-identity and the aspirational values we seek to instill in each new generation. But questions remain about the validity of this idea and whether all Americans are included in this ethos. Students will explore these questions through the dual lenses of history and the humanities. This course offers students an opportunity to explore and interrogate this ever-evolving idea through texts, film, music, and other vehicles of cultural and historical study and criticism. Themes of the course include patriotism, citizenship, success, wealth, property ownership, work, and religion. (*This course may also be offered to students enrolled in the Honors Program*).

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| HUM365 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Dystopian Worlds

(GE, Humanities)

This course examines the dynamics of living and thriving in a dystopian world. To understand the dystopian genre, students will apply various critical lenses revolving around community, ethics, survival, communication, environmental resources, and economic principles. In addition to viewing 3 dystopian movies, students will read various online articles.

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| HUM388 | CREDITS: 3 | PREREQUISITE(S): INSTRUCTOR APPROVAL |
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## Special Topics in Humanities

(GE, Humanities)

Special topic courses are intended to provide focused studies within a specific discipline. Students in this course will engage in the advanced study of a specific aspect of the humanities, potentially engaging the basic principles of art, creative writing, literature, architecture and/or music. Students will consider subject matter within various contexts, which might include a social, historical, cultural and/or political context.

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| HUM415 | CREDITS: 3 | PREREQUISITE(S): ENG102 |
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## Selected Topics in Humanities

(GE, Humanities)

This course is designed to explore a defined area of the humanities, including literature, the arts, and philosophy. The in-depth study may include topics from both Western and non-Western cultures. Contents and methods vary with instructors and from semester to semester. Students will create portfolio-level project outcomes in this class.

## INTERNSHIPS (INT)

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| INT350 | CREDITS: 3 | PREREQUISITE(S): SPONSOR APPROVAL |
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### Internship

An internship is considered a supervised, practical experience that is the application of previously learned theory. Employers/sponsors work with the student to meet specific objectives and/or learning goals and provide special mentoring or networking opportunities. In exchange, the intern helps the employer/sponsor in meeting overall work goals for the agency/company. Students completing 3.0 credit internships must work a total of 150 hours, or ten hours per week for 15 weeks.

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| INT400 | CREDITS: 6 | PREREQUISITE(S): SPONSOR APPROVAL |
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### Internship

An internship is considered a supervised, practical experience that is the application of previously learned theory. Employers/sponsors work with the student to meet specific objectives and/or learning goals and provide special mentoring or networking opportunities. In exchange, the intern helps the employer/sponsor in meeting overall work goals for the agency/company. Students completing 6.0 credit internships must work a total of 300 hours, or 20 hours per week for 15 weeks.

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| INT450 | CREDITS: 12 | PREREQUISITE(S): SPONSOR APPROVAL |
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## Industry Immersion

An immersed production studio allows students to take on a full-time role within sponsored external projects. Students will be solely focused on the completion of these projects in a real-world practical application. Students will be supervised to completed specific milestones and work directly with project sponsors to ensure project completion. The industry immersion production studio will require students work a total of 450 hours, or 30 hours per week for 15 weeks.

## JAPANESE STUDIES (JPN)

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| JPN108 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Introduction to Japanese

(GE, Humanities)

This class is designed for students studying Japanese for the first time. Students will be introduced to the whole of the Japanese language; they will acquire skills in reading, writing, speaking, and listening regarding such topics as greetings, classroom expressions, numbers, dates and time, daily activities, verb conjugation, simple introductions, ordering food, existence and location, hobbies, likes and dislikes, weather and shopping. Aspects of Japanese culture that tie in heavily with the language will also be introduced.

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| JPN208 | CREDITS: 3 | PREREQUISITE(S): JPN108 |
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### Intermediate Japanese

(GE, Humanities)

In this course, students will examine the topics learned in JPN108 and study them at a more advanced level; they will continue to acquire skills in Japanese in reading, writing, speaking and listening. Emphasis will be on both conversational skills and grammatical analysis of the language. Aspects of Japanese culture that tie in heavily with the language will continue to be introduced.

## LAW (LAW)

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| LAW370 | CREDITS: 3 | PREREQUISITE(S): ENG101 |
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### Legal Issues in Technology

(GE, Humanities)

This course addresses typical legal and business issues in the multimedia field. Rights granted under copyright, principles of fair use, trademarks, intellectual property law, trade secrets, unfair competition, disclosure and privacy laws are covered. Students explore these legal topics with a focus on electronic media.

## MATHEMATICS (MAT)

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| MAT174 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### College Algebra

(GE, Mathematics)

Relations and functions are developed thoroughly with their graphs. Function types include polynomial, rational, radical, exponential and logarithmic. Other topics include systems of equations and inequalities, as well as matrices. Application, relevance, and appreciation are evolved through various methods.

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| MAT179 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Pre-Calculus

(GE, Mathematics)

Introduction to Trigonometry with associated functions and graphs is the primary focus. Modeling is explored using trigonometric functions. There is a focus on developing an understanding of vectors in both rectangular and polar forms. Application, relevance, and appreciation are evolved through various methods.

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| MAT210 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Business Mathematics

(GE, Mathematics)

This course provides a comprehensive coverage of personal and business-related math topics. The focus will be on personal finance, business finance, and basic accounting practices. The personal finance section will include topics related to budgeting, taxes, investing, and mortgages. For the business finance portion of the class, the students will focus on applying mathematical formulas, percent markups and markdowns, and graphical representations needed to present data in a business situation.

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| MAT220 | CREDITS: 3 | PREREQUISITE(S): MAT174 |
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## Statistics

(GE, Mathematics)

This course presents the student with basic statistical concepts and methods. This course introduces descriptive and inferential statistics including elementary probability, linear regression and hypothesis testing.

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| MAT250 | CREDITS: 3 | PREREQUISITE(S): MAT174 AND MAT179 |
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## Calculus I

(GE, Mathematics)

This course is the study of single variable differential calculus. Emphasis is placed on differentiating elementary functions and solving application problems.

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| MAT251 | CREDITS: 3 | PREREQUISITE(S): MAT250 |
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## Calculus II

(GE, Mathematics)

This course continues the study of single variable calculus. Emphasis is placed on anti-differentiation, numerical interpretations of the integral and the use of the integral in application problems.

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| MAT342 | CREDITS: 3 | PREREQUISITE(S): MAT250 |
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## Linear Algebra

(GE, Mathematics)

This course serves as an introduction to linear algebra. It includes the study of systems of linear equations, matrix algebra, vector spaces, linear transformations, eigenvalues and eigenvectors.

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| MAT388 | CREDITS: 3 | PREREQUISITE(S): INSTRUCTOR APPROVAL |
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## Special Topics in Mathematics

(GE, Mathematics)

This course will explore special topics in the field of mathematics.

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| MAT415 | CREDITS: 3 | PREREQUISITE(S): MAT179 |
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## Selected Topics in Mathematics

(GE, Mathematics)

This course is designed to explore a defined area of mathematics. Contents and methods vary with instructors and from semester to semester. Students will create portfolio-level project outcomes in this class.

# MANAGEMENT (MGT)

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| MGT102 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Management in a Technology Environment



This course introduces management principles that specifically apply in contemporary technology environments, applications of management in technology organizations that include the management functions and processes of controlling, decision making, leading, motivating, organizing and communicating. This course will examine working in groups and teams, effective communication and adapting to change.

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| MGT220 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Project Management



Successful design and implementation of technology projects require substantial planning and execution. This course covers industry accepted techniques and frameworks for managing projects such as: PERT, Agile, Prince2, Benefits Realization Management, Lean, Process Based Management, Critical Chain Analysis and Pragmatic Project Management. Students will learn about and practice management models as a requisite for successfully completing future projects.

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| MGT230   | CREDITS: 3 | PREREQUISITE(S): MGT220         |
| <b>Organizational Development</b>  <p>This course will study leadership and management functions that are anticipated for preparing for the future and the current situation. Students will learn to mobilize resources, analyze human resource market trends and identify new trends and situations regarding managing people. Human resource issues such as job performance, benefits and leadership theories will also be explored. The course will examine the body of knowledge within an organization and how management can harness it. Part of the course will be devoted to the gathering of business intelligence by competitors to assess future organizational environments.</p>  |            |                                 |
| MGT320   | CREDITS: 3 | PREREQUISITE(S): NONE           |
| <b>Strategic Accounting</b>  <p>This course explores the use of finance, accounting and quantitative data for making decisions in a leadership role. Students will learn the various uses and processes to obtain this vital data for strategic decision making. The course will showcase the use and need at various levels of organizations from start-up to enterprise. Students will go through the process of producing this essential information and learn the proper ways of interpretation that will lead to actionable items.</p>   |            |                                 |
| MGT322   | CREDITS: 3 | PREREQUISITE(S): MAT210, MGT220 |
| <b>Financial Management in a Technology Environment</b>  <p>Students will examine the role of risk in financial decision making. Various methods of corporate financing will also be discussed. The student will understand financial markets, interest rates, risk and rates of return. This course discusses the concepts of basic accounting and financial reporting and forecasting germane to a manager.</p>   |            |                                 |
| MGT324   | CREDITS: 3 | PREREQUISITE(S): MGT220         |
| <b>Managing Change and Innovation</b>  <p>This course provides insights into managing through periods of rapid change and high uncertainty. Fostering creative environments and environments that motivate and nurture knowledge workers will be discussed.</p>   |            |                                 |
| MGT330   | CREDITS: 3 | PREREQUISITE(S): MGT220         |
| <b>Leading Technologists and Tech. Teams</b>  <p>Technology organizations are unique in that they are predominantly comprised of individuals possessing deep technical skills. Specialized leadership approaches are needed within technology organizations to fully capture the potential of knowledge workers and apply their capacity. This course introduces students to technology leadership topics such as: the role of personality profiles, leading geeks, situational leadership, human development, transformational and transactional leadership, team dynamics, inference management along with accountability and performance management. Successful conceptualization, design and implementing of technology that requires planning.</p> |            |                                 |
| MGT415   | CREDITS: 3 | PREREQUISITE(S): NONE           |
| <b>Strategic Planning and Analytics</b>  <p>Organizations that align their mission, identity and strategy with their technology products and services have the greatest likelihood of sustained success. When analytics provide ongoing feedback on performance, entrepreneurial, lean and traditional organizations can adjust to market conditions and the desire of customers. This course introduces techniques for strategic planning, architecting aligned organizations and implementing analytic streams of data allow leaders and members of organizations to guide their organizations.</p>   |            |                                 |
| MGT423   | CREDITS: 3 | PREREQUISITE(S): NONE           |
| <b>Data Visualization and Mining</b>  <p>This course introduces theory and concepts relating to the effective display of data with a focus on quantitative data. Concepts provide the basis for selecting, designing and presenting graphs based on multidimensional data. Current tools are used to graph the correct data, alert decision makers to problems and display data geographically. Current tools are used to graph the correct data, alert decision makers to problems and display data geographically.</p>  |            |                                 |
| MGT425   | CREDITS: 3 | PREREQUISITE(S): MGT324         |
| <b>Trends in Business Technologies</b>  <p>This course is a survey of the emerging trends in business technologies. Students will look forward two-to-four years at the emerging products, legislation and needs that will impact them as managers and which need to be addressed to maintain the health of their organizations.</p>  |            |                                 |

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| MGT441  | CREDITS: 3 | PREREQUISITE(S): NONE |
| <b>Business Intelligence and Data Management</b>   |            |                       |
| <p>Business intelligence focuses on the use of information to drive effective business actions. It is the vehicle to achieve maximum business value from both developing and mature data warehouses. This course provides a comprehensive overview of business, technical and cultural implications of business intelligence. It explores a wide range of contemporary issues, including data warehousing and data mining theory and practice, tools and techniques for delivering business intelligence, information and knowledge management, implementation and exploitation of emerging technologies, CRM, process reengineering, supply chain management and geographic information systems. The course particularly focuses on Data Mining, a computer-assisted process of evaluating enormous sets of data to find previously undiscovered patterns, draw conclusions and then make decisions based on these patterns.</p> |            |                       |

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| MGT450  | CREDITS: 3 | PREREQUISITE(S): MGT415 |
| <b>ROI Based Decision Making and Negotiations</b>    |            |                         |
| <p>This course is centered on 12 negotiation exercises that simulate competitive business situations. Specific topics covered include distributive bargaining (split the pie!), mutual gains framework, mixed motive bargaining (several issues at stake) with two and with more than two parties, auctions and fair division. Ethical dilemmas in negotiation are discussed at various times throughout the course. There are two principal objectives for this course. The first is to provide the student with negotiation tools that enable them to achieve their negotiation objectives in a fair and responsible fashion. The second is to learn by doing. That is, we provide a forum in which you actively apply these tools to a wide variety of business-oriented negotiation settings.</p> |            |                         |

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| MGT456  | CREDITS: 3 | PREREQUISITE(S): NONE |
| <b>Big Data Analytics</b>    |            |                       |
| <p>This course is an application of Big Data concepts including algorithms, analytics, and visualization of Big Data such as dashboards and predictive models. Artificial life algorithms and data mining concepts are implemented. Some of the modeling will include linear and logistic regression. Statistical and machine learning will be studied and investigated in areas such as medical informatics and biology.</p> |            |                       |

## MARKETING (MKT)

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|---|------------|-----------------------|
| MKT100  | CREDITS: 3 | PREREQUISITE(S): NONE |
| <b>Art of Sales</b>    |            |                       |
| <p>This course is designed to walk you through all things sales. Discussions will cover history, types, dos and don'ts, and how to work with different types of personalities in sales. Objectives will help you to identify your skill set to prepare for business and an understanding of the full sales cycle, thus making students able to identify and overcome objections and practice the methods being applied in real world scenarios.</p> |            |                       |

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| MKT120  | CREDITS: 3 | PREREQUISITE(S): NONE |
| <b>Survey of Business and Marketing for Industry</b>   |            |                       |
| <p>Students will be immersed in a personalized business startup where they will be taking the role of running their own business as a consultant. This course will go over how small businesses run and operate along with exploring marketing methods and outreach. Students will learn best practices for utilizing the various social media outlets for customer outreach. They will also create marketing assets to use for both personal brand recognition and customer advertising.</p> |            |                       |

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| MKT220   | CREDITS: 3 | PREREQUISITE(S): NONE |
| <b>Brand Management Strategies</b>    |            |                       |
| <p>In this course students learn how to apply the concepts of advertising and marketing to branding. Students will go over topics and various strategies related to building, measuring, and managing a brand. The focus of this course is around management of brands over time. They will learn how to keep brands relevant, understand their customer base and overall market trends for proper brand management.</p> |            |                       |

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| MKT250  | CREDITS: 3 | PREREQUISITE(S): NONE |
| <b>Marketing Environments</b>    |            |                       |
| <p>Students explore a comprehensive approach to marketing, opportunity, and measure, as well as correlate appropriate marketing strategies with marketing channels in this course. Marketing environments delivers a strong foundation in brand presence and strengthening, website design principles, search engine marketing (SEM), social media networks, and mobile advertising. Students learn practical business strategies, promotion, performance evaluations, and improvement opportunities as they relate to marketing and advertising.</p> |            |                       |

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| MKT320   | CREDITS: 3 | PREREQUISITE(S): MKT250 |
| <b>New Media Communication and Marketing</b>  |            |                         |

The New Media Communication and Marketing course instructs students how to promote and advertise their products and services across online media markets. Students research best practices for content creation and optimization that incorporates their brand, product and service into a vast network of applicable communication channels and audiences. Course content includes decision making on and evaluation/design of effective content, user demographics, social networks/news, blogs, video/photo sharing sites, viral marketing and brand presence strength.

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| MKT330  | CREDITS: 3 | PREREQUISITE(S): MKT250 |
| <b>SEO and Applied Online Marketing</b>  |            |                         |

Students gain an applied understanding of Internet marketing approaches, opportunity, and measure, as well as correlate appropriate marketing strategies with marketing channels. The SEO and Online Marketing Applied course thoroughly examines brand presence and marketing for social media, search engines, blogs, affiliate, email and mobile devices. Course participants receive an in-depth education in search engine optimization (SEO) and search engine marketing (SEM). Elevated topics include landing page design, meta-tags, anchor text, keyword development, image optimization, local search, conversion tracking, and link building, designed to increase relevant consumer traffic. This course also teaches performance evaluation and response through web analytics and site data reporting. Students distinguish the various metrics to identify areas of improvement, expand strengths and define campaign success.

## NETWORK SECURITY (NTS)

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| NTS103   | CREDITS: 3 | PREREQUISITE(S): NONE |
| <b>Identity Protection and Personal Security</b>  |            |                       |

One of the most prolific crimes that is occurring in modern society is identity theft. This is perpetuated by the rise of social media, online presence and lack of education on proper protections of your personal information. There is also a physical risk with this type of information. This course explores the critical life skills needed to better protect your identity and yourself in today's society.

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| NTS201   | CREDITS: 3 | PREREQUISITE(S): NONE |
| <b>Security Essentials</b>  |            |                       |

The goal of this course is to provide network administrators with the knowledge to design and implement an effective security strategy in a competitive corporate networking environment. This course will explore security-by design utilizing anti-virus tools, security policies and practices, password management, risk analysis and assessments, network vulnerabilities, enhancing security through cabling and network hardware, understanding different types of firewalls, packet filtering and NAT, setting up and securing a VPN, and understanding contemporary hacker exploits. The documentation created during this course can be added to the student's portfolio.

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|---|------------|-----------------------|
| NTS305  | CREDITS: 3 | PREREQUISITE(S): NONE |
| <b>Information Governance</b>  |            |                       |

As the front line of the 21st century information age will you be managing information appropriately while considering the threats you face? Information is managed by a wide range of elements that must be considered as part of the full equation. The laws and regulations that apply to the business, the importance placed on the information by business leadership, the expectations of the customer, and of course the desire for the most reasonable protections to the information in support of all objectives. This course focuses on how all these elements come together to create and manage the information governance of the organization.

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| NTS310  | CREDITS: 3 | PREREQUISITE(S): NTS201 AND TCH310 |
| <b>Social Engineering</b>  |            |                                    |

Have you ever fallen victim to a phishing scam? Why are these scams so successful? Scams are based on specific attributes of individual decision-making processes known as cognitive biases or bugs in the human system. Social engineering is developing the art of persuasion to gather confidential information from individuals that would normally not disclose this data. A successful social engineer does not need to solely rely on hard technical skills to access information systems. This is a project-based course that will provide examination of historical exploits and develop the necessary skills to successfully use the art of social engineering to access confidential information in a corporate environment and develop defense measures.

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| NTS330  | CREDITS: 3 | PREREQUISITE(S): NTS201 AND TCH310 |
| <b>Applied Exploits</b>  |            |                                    |

When discussing practical network security, we must acknowledge that all systems have vulnerabilities. This course combines the fundamental and historical perspective of hacking methodologies and applied hands-on skills. Hacking topics are explored to examine the current systems associated with these vulnerable points. This is an applied hands-on course requiring the use of a variety of modern operating systems. Typical walkthroughs explore the standard hacking methodologies such as discovery, footprinting, targeting, attacks, penetration, escalation of privileges and maintaining access. Technical feedback is provided on appropriate means for countering each step of this common methodology.

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NTS336 CREDITS: 3 PREREQUISITE(S): NTS201

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## Cloud Security

This course will explore prevalent cloud platform options, their security, regulation and governance.

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NTS350 CREDITS: 3 PREREQUISITE(S): NTW103 AND NTW216

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## Network Security Monitoring

Explore the world of Network Security Monitoring (NSM) and packet analysis. Network security monitoring takes a step past standard intrusion detection models and collects the full spectrum of data types (event, session, full content and statistical) needed to identify and validate intrusions on contemporary network infrastructures. This course will examine typical network security monitoring hardware, tools, design and deployment. Standard vulnerability packet analysis scenarios will provide an in-depth appreciation of monitoring corporate-level networking environments.

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NTS370 CREDITS: 3 PREREQUISITE(S): NTS201, NTW220

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## Shell Scripting for Technologists

The goal of this course is to provide network security students with a solid foundation in creating shell scripts and basic programming concepts within UNIX/ Linux, specifically to aid in security related tasks. This course explores the creation of scripts to manage large amounts of security-related data and automate normal active security operations. Students will write shell scripts to manage, correlate and analyze security logs; pass variables from one security application to another to continue a flow of security activities; and to automate and simplify security related tasks and processes. The scripts and programs created in this course can be added to the student's portfolio.

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NTS405 CREDITS: 3 PREREQUISITE(S): NTS201

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## Incident Response

Although network teams possess the tools needed to secure their infrastructures, they often lack the skills for managing the incident response process. This course provides students with the skills needed to create processes for appropriately responding to security incidents. Students will learn to evaluate at what point are computers shut down and the organization disconnected from the Internet. Students will learn to analyze when is it best to let the intruders continue, so we can further determine their motivations, or goals. These processes are critical to ensuring that an incident doesn't create greater organizational damage.

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NTS415 CREDITS: 3 PREREQUISITE(S): NTS330 AND NTW216

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## Network Defense and Countermeasures

The Network Defense and Countermeasures course is the art of fencing for network protection. This course covers designing a network defense, security policies, choosing and designing firewalls, configuring firewalls (demos and research), setting up VPNs, Intrusion Detection System overview and design, honey pots, and behavior-blocking software. Additionally, this course will provide solutions for identifying, assessing and preventing external and internal threats to your network in a multi-vendor environment.

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NTS435 CREDITS: 3 PREREQUISITE(S): NTS201

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## International and Federal INFOSEC Standards and Regulations

This course is an overview of the world of federal and international information security standards that guide the way organizations are doing business today. Research and analysis are conducted on how US security regulations vary from industry to industry, including healthcare, education, military, federal organizations, utilities and financial organizations. International security standards will also be reviewed to understand the impact of implementing appropriate information security mechanisms in a global organization. The documentation created during this course can be added to the student's portfolio.

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NTS442 CREDITS: 3 PREREQUISITE(S): INSTRUCTOR APPROVAL

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## Collegiate Cyber Defense Competition

This course prepares students for a competition that specifically focuses on the operational aspect of managing and protecting an existing commercial network infrastructure. Not only do students get a chance to test their knowledge in an operational environment, they will also get a chance to network with industry professionals. The documentation created during this course can be added to the student's portfolio. Due to the changing nature of the challenges, this course can be taken twice and credits received both times toward the appropriate degree.

NTS465

CREDITS: 3

PREREQUISITE(S): NTS330 AND NTW216

## Security Evaluation and Assessment Methodology



The course is based on the National Security Agency's (NSA) Information Security (INFOSEC) Evaluation Methodology (IEM), which is NSA's recommended methodology for evaluating an organization's technical security. The course will examine the process of coordinating with the customer, setting the scope of the project, obtaining legal authorization, conducting the ten baseline activities of the evaluation, and compiling a meaningful and understandable final product for the customer. Students registering for this course will be required to participate in an actual IEM based evaluation as a course project. The documentation created during this course can be added to the student's portfolio.

## NETWORK TECHNOLOGY (NTW)

NTW102

CREDITS: 3

PREREQUISITE(S): NONE

### Foundations of Network Engineering



This course will lay the foundation on which to build a working knowledge of network engineering. This introductory class will provide a comprehensive overview of how modern networks operate. Topics will include OSI model, legacy technology overview, TCP/IP, LAN and WAN technologies, how the Internet works, switching and routing basics. Students will be given hands-on exercises to reinforce the knowledge taught in class.

NTW103

CREDITS: 3

PREREQUISITE(S): NTW102

### Fundamentals of Network Engineering



This course will build on the fundamentals covered in NTW102, to further advance the students working knowledge of network engineering. This class will provide depth of knowledge regarding the operation of modern networks. Topics will include managing risk and security, advanced networking, IPv6, remote connectivity, wireless, virtualization, mobile networking, building and monitoring networks, and troubleshooting network issues. Students will be given hands-on exercises to reinforce the knowledge taught in class.

NTW216

CREDITS: 3

PREREQUISITE(S): NTW103

### Foundations of Systems Administration



This course will lay the foundation on which to build a working knowledge of system administration. This class will provide a comprehensive overview of contemporary systems administration with a focus on Microsoft based environments. An overview of the available server and desktop operating systems, their common use cases and their strengths and weakness will be given. Topics such as active directory, user/computer/group management, resource permissions, optimizing performance, backup, storage, server monitoring will be covered. Students will be armed with a baseline of knowledge with which to identify and understand server infrastructures for business solutions. Students will be given hands-on exercises to reinforce the knowledge taught in class.

NTW220

CREDITS: 3

PREREQUISITE(S): NONE

### Linux I for Technologists



This course provides an overview of the commands, utilities and supporting architecture used in Linux operating systems. This course provides the student with skills such as system and application installation, shell scripting, regular expressions, system management, web services installation and maintenance.

NTW233

CREDITS: 3

PREREQUISITE(S): NTW103 AND NTS201

### IoT Architecture and Security



The Internet of Things (IoT) is the standard term being applied to the integration of multiple types of connected devices in both the commercial, government and personal environments. IoT provides a unique and expanded set of considerations for implementation and security to provide the most effective solution. This course will examine the various types of IoT devices and the considerations for implementation. Students will have the opportunity to get hands on experience with many IoT devices.

NTW245

CREDITS: 3

PREREQUISITE(S): NTW216

### Applied Mobile Computing and Cloud Collaboration Technologies



This course will provide students with an understanding of the modern mobile computing technology landscape. The explosive growth in this area makes this essential knowledge for the IT engineer to have. Wireless fundamentals and history will be covered. Popular topics such as how to manage smartphones, tablets and other mobile consumer devices in a business environment and how service providers architect their wireless networks to accommodate mobile devices will be covered. Wireless technologies such as GSM, CDMA, 3G/4G, LTE, 802.11, Bluetooth and WiMAX will be introduced. Students will learn the various wireless and collaboration technologies influencing modern corporations and service providers. This course will also explore the types, uses and configuration of on-demand collaboration, solutions email systems, file sharing, web publishing, web portals, content management solutions, online meeting, instant messengers, web-based word processor, spreadsheet, presentation and data storage services. During this course, you will learn the business drivers, social drivers and technology being used to mobilize the collaborative workforce. The trend towards consumerization of IT will also be discussed. A study of these technologies will prepare students to make objective evaluations of the different wireless/mobile and collaboration technologies and their use cases. Students will be given hands-on exercises to reinforce the knowledge taught in class.

|  |            |                                    |
|--|------------|------------------------------------|
| NTW270   | CREDITS: 3 | PREREQUISITE(S): NTW103 AND NTW216 |
| <b>Router and Switch Configuration and Administration</b>   |            |                                    |
| <p>Who is afraid of configuring a router? Router administrators wanted! Conquer your router. This course will focus on essential router administration including installation, configuration, and management in a routed environment. The router topics include the OSI Reference model, subnetting, router IOS commands, routing protocols, configuration of the interfaces and access lists for security and filtering.</p>  |            |                                    |
| NTW275   | CREDITS: 3 | PREREQUISITE(S): NONE              |
| <b>Network Infrastructure Design I</b>    |            |                                    |
| <p>During this course, students will learn how to design and build a network. Topics included in this course will prepare students to translate organizational needs into network designs. Students will learn how to consider the logic of both the physical network topology and the server infrastructure during a network infrastructure design process.</p>   |            |                                    |
| NTW280   | CREDITS: 3 | PREREQUISITE(S): NTW216            |
| <b>Virtualization System Technologies and Administration</b>    |            |                                    |
| <p>This course will prepare students for working in the highly virtualized IT environments of contemporary businesses. The skills required to administer a typical Virtual Infrastructure will be covered in this class. The skills learned in this class will prepare you for understanding the design, implementation and tools used in a virtual environment. The course will focus on planning, implementing, configuring, deploying and securing server and network virtualization server and desktop technologies for software-as-a-service (SaaS), cloud computing technologies, administering virtualized server infrastructure, resource and balancing management, virtual switching, routing and forwarding, logical storage partitions, virtual processors, network interfaces, virtual and remote management of virtualized operating systems in a vendor-neutral environment. Each student will complete a hands-on project to build a complete multi-server VMware environment using the tools explored in this class. Students will be taught the business drivers, pros and cons and use cases of virtualization technology.</p> |            |                                    |
| NTW318   | CREDITS: 3 | PREREQUISITE(S): NTW275            |
| <b>Emerging Network Engineering Technologies</b>    |            |                                    |
| <p>Technology is ever changing. This course will examine new and emerging networking technologies and project their pros and cons and how the technologies are considered for implementation. Where possible, students will get hands-on experience with these technologies.</p>   |            |                                    |
| NTW320   | CREDITS: 3 | PREREQUISITE(S): NONE              |
| <b>Directory Services Design and Administration</b>   |            |                                    |
| <p>Strategies presented in this course are used to identify the information technology needs of an organization and design and deploy a directory services structure that meets those needs. The focus of this course is the applied skills necessary to plan, design and implement the required directory services infrastructure for a worldwide enterprise. Topics covered include Directory Services forest and tree creation, populating directory services objects, construction of sites, DS backup and the restoration of a corrupted structure, securing the enterprise and maintaining proper procedures. Using a networking lab, teams will create a directory service infrastructure to meet business needs of a popular corporate entity.</p>   |            |                                    |
| NTW325   | CREDITS: 3 | PREREQUISITE(S): NTW103 AND NTW216 |
| <b>A+ and Network+ Certification Preparation</b>    |            |                                    |
| <p>This course will lay out the material for the CompTIA A+ and Network + certification and help students to better prepare for the certification testing process.</p>   |            |                                    |
| NTW342   | CREDITS: 3 | PREREQUISITE(S): NTW220            |
| <b>UNIX/Linux Systems Administration</b>    |            |                                    |
| <p>Today's enterprises implement a variety of server operating systems within their infrastructures. A successful information technology candidate must have the skills necessary to deploy current Unix/Linux distributions and alternative operating systems. Using a networking lab, teams will create a popular organizations enterprise level infrastructure. This course focuses on the application of UNIX/Linux as a server. The applied topics will include account and resource management, installing Domain Naming Service (DNS), Dynamic Host Configuration (DHCP), file/printing services, securing the enterprise, Intranet/ Internet tools, performing backup/restoration of critical files, performance monitoring and proper preventive maintenance procedures.</p>  |            |                                    |
| NTW375   | CREDITS: 3 | PREREQUISITE(S): NTW275            |
| <b>Network Infrastructure Design II</b>   |            |                                    |
| <p>This advanced course provides students with additional opportunity to practice designing and implementing network infrastructures. Building upon concepts learned and practiced in NTW275, this course provides more complex scenarios requiring more advanced infrastructure design techniques and technologies. The concepts and labs of this course will be layered upon each other such that by course completion a best practice-based multi-site networking project will have been built. This course will prepare students to evaluate, design and implement network engineering best practices.</p>   |            |                                    |

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| NTW385 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Managing Enterprise Networks

This course provides students with the opportunity to practice designing and implementing enterprise networking communication and content solutions. The course will cover designing and implementing unified communication, social media, and storage technologies at an enterprise level. This course will prepare students to evaluate, design and implement enterprise network engineering best practices.

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| NTW428 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## The Business of Technology

This course takes a comprehensive look at how business requirements affect network technology design. Real-life case studies detailing how corporate and industry requirements drive technology design to supplement and enhance business processes. Topics will include assessing corporate IT culture, understanding organizational structure, and working with key stakeholders to design network solutions that meet business unit requirements. Upon completion of this course you will understand how business needs drive the technology innovation of an organization.

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| NTW440 | CREDITS: 3 | PREREQUISITE(S): NTW216 |
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## Business Continuity/Disaster Recovery

Business continuity planning and disaster recovery planning are vital activities and required knowledge for the Information Systems Engineer. For every IT system, location or process there should be a companion continuity and recovery plan. This course will explore this topic in detail, highlighting topics such as creating a plan and maintaining a plan. The COBRA methodology for Business Impact Analysis and Risk Analysis will be used. This project-based course will allow you to create a business continuity and disaster recovery plan using best practices learned in this course.

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| NTW455 | CREDITS: 3 | PREREQUISITE(S): NTW375 AND NTW280 |
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## Modern Data Center and Cloud Computing Design and Services

Strong data center design skills are incredibly sought after in the IT marketplace. Receive an in-depth introduction to designing data centers and review industry best practices in this course. The focus is on the design of all aspects of a modern IT data center. This project-based course will guide you on a journey to build a medium-sized data center from the ground up. This course is divided into three sections: physical, network infrastructure, and systems. Multi-tenant and cloud architectures for data center design will also be explored.

## PRODUCTION STUDIO (PDS)

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| PDS300 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Production Studio I

Working towards the creation of market-ready, professional applications of technology, students will take on the roles and procedures of teams working in production pipelines that mirror the workplace.

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| PDS400 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Production Studio II

This course will continue upon Production Studio I allowing students to move their project along the production pipeline. Students will likely serve as project leads and mentor students in Production Studio I.

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| PDS450 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Production Studio II

This course will continue upon Production Studio I and Production Studio II allowing students to move their project along the production pipeline. Students will likely serve as project leads and mentor students in Production Studio I or Production Studio II.

## PHYSICS (PHY)

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| PHY101 | CREDITS: 3 | PREREQUISITE(S): MAT174 |
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### Physics

(GE, Science)

This course explores the theories and use of Newtonian physics, formulas and techniques associated with 2D kinematics, force, momentum, work, energy, heat and wave properties.

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| PHY125 | CREDITS: 3 | PREREQUISITE(S): MAT174 |
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## Introduction to Electricity and Magnetism

(GE, Science)

This course will introduce the student to basic concepts of electricity and magnetism with discussion of practical applications. Charges and fields will be used to understand the concepts of potential, resistance, capacitance and inductance, and to solve basic DC circuits. Math through college algebra is required.

## PSYCHOLOGY (PSY)

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| PSY101 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Introduction to Psychology

(GE, Social Science)

This course is designed to present a comprehensive overview of the scientific study of human behavior as it is currently viewed by the science of psychology. Some of the topics that will be introduced are the following: an overview of psychology as a science, the brain and behavior, child development, life-span development, abnormal psychology, health, stress and coping, personality, perception, and social behavior.

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| PSY300 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Living Your Best Life

(GE, Social Science)

In this course, students explore psychological principles and concepts related to personal success strategies, self-actualization, growth mindset, wellbeing, positivity, and happiness. Students will engage in reflection and introspection activities to develop a mindset that will enhance the student's ability to persevere when faced with life's challenges and live their best life possible.

## ROBOTICS (RBT)

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| RBT131 | CREDITS: 3 | PREREQUISITE(S): MAT174 |
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### Digital Logic Basic Processor Design

Students will learn how a processor is built from fundamental logic gates. Learning how a processor works under the hood will help students become better programmers. Electronics fundamentals will be covered, including digital logic, Ohm's Law, schematics and integrated circuits. The use of oscilloscopes and other electrical equipment will also be covered, including soldering and circuit construction techniques (programming with solder). Students will implement an assembly instruction set on a 4-bit  $\mu$ Controller they design.

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| RBT173 | CREDITS: 3 | PREREQUISITE(S): CSC102 AND RBT131 |
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### Introduction to Microcontrollers

Various microcontroller architectures and integrated circuit families will be studied, along with their development environments. Interfacing to transducers, actuators, analog-to-digital converters and other supporting hardware will be covered, as well as elements of programming (software) and circuit implementation (hardware).

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| RBT205 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Mechanisms and Materials

Students will explore the use of materials and design of simple mechanical systems using CAD software and rapid prototyping technologies. Topics include design for manufacturing, power transfer, and choice of materials in designs.

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| RBT211 | CREDITS: 3 | PREREQUISITE(S): RBT173 AND CSC215 |
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### Arduino Embedded Programming

Embedded programming is a key component of any high-fidelity robotics product, as well as many high-tech maker-based platforms. This course will work through the details of component, assembly, and complex product-based embedded programming solutions, with an emphasis on Arduino hardware. Students will learn to understand the elements of real-world problems and be able to translate those problems into a structured list of requirements, scope elements, and ultimately—programming.

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| RBT220 | CREDITS: 3 | PREREQUISITE(S): RBT131 AND PHY101 |
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### Introduction to Mechanical Concepts

Introduces the fundamental concepts in mechanical engineering. Concepts such as mechanical advantage, simple machines, and simple physical analysis (torque, kinematics, etc.) will be covered. Students will also learn the different components used to create a complex mechanism.

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| RBT307  | CREDITS: 3 | PREREQUISITE(S): CSC102            |
| <b>Physical Computing Studio</b>   |            |                                    |
| <p>Interesting connections between the physical world and the computer world are investigated. Active sculpture, electronics based art, simple aesthetic machines and interactive art installations are some of the topics that will be covered. This course assumes no prior electronics or programming experience; however, it will require instructor approval. Simple light/LED/relay control, small motors and servos, and simple sensors will also be covered. The Processing and Arduino programming environments will be studied, as it applies to projects. Class interest will drive topics covered. Students will complete a project of their design by the end of the course.</p> |            |                                    |
| RBT310  | CREDITS: 3 | PREREQUISITE(S): RBT211            |
| <b>ARM Embedded Programming</b>    |            |                                    |
| <p>Concepts involved with advanced embedded programming will be covered with a focus on the ARM microcontroller architecture. Students will use the embedded programming concepts learned in RBT211 and apply them through the use of a real-time operating system. By the end of the course, students will have knowledge of a new embedded platform as well as applications with a real-time embedded platform.</p>   |            |                                    |
| RBT337  | CREDITS: 3 | PREREQUISITE(S): CSC382 AND MAT220 |
| <b>Digital Vision and Sensor Processing</b>    |            |                                    |
| <p>Computer vision is an important means of robot control in many systems, such as pick and place machines, production line, construction robotics and terrain navigation. The data structures and algorithms used to process visual data are studied and show how they can overcome certain robotics problems. Edge finding, texture analysis and other feature detection/sensing methods are studied.</p>   |            |                                    |
| RBT347  | CREDITS: 3 | PREREQUISITE(S): RBT211            |
| <b>Robot Navigation</b>    |            |                                    |
| <p>Student teams will design, implement and evaluate software for an autonomous mobile robotic platform. Real-world environment design considerations will be addressed throughout the design process. The level of autonomy must be clearly defined, taking into consideration asynchronous events and sensor input. Appropriate architecture selection will be a major component to the design, as dictated by performance requirements outlined in the project objectives. Topics that relate to the design will also be studied, including data structures used in the implementation of intelligent machines.</p>  |            |                                    |
| RBT353  | CREDITS: 3 | PREREQUISITE(S): RBT173            |
| <b>Robotics Competition</b>    |            |                                    |
| <p>Student teams will design, implement and evaluate projects relating to an entry in a collegiate level, non-destructive robotics competition. Topics include mechanical, electrical, and computation design; autonomous system evaluation; real-time debugging and reliability testing.</p>   |            |                                    |
| RBT431  | CREDITS: 3 | PREREQUISITE(S): RBT173            |
| <b>Autonomous Aerial Vehicles</b>    |            |                                    |
| <p>Students will explore the computer control of both fixed-wing and rotorcraft aerial vehicles. Topics will include flight mechanics, electronic control of flight, control base stations, and important software techniques for controlling flying vehicles.</p>  |            |                                    |
| RBT441  | CREDITS: 3 | PREREQUISITE(S): RBT211            |
| <b>Autonomous Ground Vehicles</b>    |            |                                    |
| <p>During this class, a fully autonomous outdoor rover will be developed. This rover will have the ability to learn and memorize any object and then autonomously track it and follow it with the goal of interception. One example would be for a soccer ball to be kicked and the rover would continuously chase it. It is easy to track objects at low speed, however extending this problem to high speed on an outdoor platform with multiple unknown obstacles makes the task much more challenging.</p>  |            |                                    |
| RBT479  | CREDITS: 3 | PREREQUISITE(S): RBT347            |
| <b>Mechatronics</b>    |            |                                    |
| <p>Students will learn basic mechanical design, PCB layout and common mechanical control methods. Mechanical design topics include basic mechanical drafting, mechanical design, design analysis and rapid prototyping. PCB layout topics include schematic capture, design for electromagnetic interference, CRC design rules and surface-mount layout. Control topics include an introduction to controls theory, PID control methodology and adaptive control systems.</p>   |            |                                    |

## SCIENCE (SCI)

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| SCI150 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Introduction to Electronics

(GE, Science)

This course introduces fundamental concepts in electrical and computer engineering such as Ohm's Law, capacitors, LEDs and 7-segment displays, transformers and rectifiers, and digital logic. Design concepts such as schematic layout and board design will also be covered. Lab work exposes students to commonly used instrumentation such as oscilloscopes, multimeters, and power supplies. Skills in wiring, soldering and wire-wrapping are developed.

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| SCI188 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Introductory Topics in Science

(GE, Science)

Introductory Topics courses are intended to provide introductory studies within a specific discipline. In the science discipline, topics can include, but are not limited to, astronomy, biological sciences, electricity and magnetism, environmental sciences, geology, and physics.

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| SCI330 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Green Technologies

(GE, Science)

Green Technologies offers a conceptual study of the current trends in energy production by means of accepted green technologies. This course will present a brief discussion about the history of fossil fuels and the impact of the current electric grid, as well as in-depth discussions about the development and uses of solar, wind, hydro, fuel cells, biomass and biofuels, geothermal, and emerging technologies. The course will provide students a connection to community and society by showing them ways to install these systems in the typical home, as well as how to understand policies or incentives dictated by the government.

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| SCI340 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Natural Disasters

(GE, Science)

Natural Disasters offers a conceptual study of the dramatic natural processes and their effects on human livelihoods and society. This course will present and connect each of these natural processes to environmental science concepts and the overarching theme of climate change and human interaction and impact on the earth's system. The course will provide a brief discussion of mitigation and adaptation procedures for different natural disasters, as well as in-depth case study discussions of the impact of natural disasters on societies around the world. The course will provide students a connection to community and society by showing them how to implement disaster plans in their own life and what has gone wrong in other societies when managing disaster situations.

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| SCI345 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Sustainability in Practice

(GE, Science)

Sustainability in Practice offers a hands-on study of the practical applications of sustainability science. This course will present an overview of tools like systems diagrams and sustainability frameworks to support students as they transition from theoretical sustainability concepts in the beginning of the course through to building projects like insulation and pitching sustainability concept ideas to university management for implementation. This course will provide students a connection to community and society through supporting students as they tackle sustainability challenges through practical and implementable projects specific to their own community context at UAT.

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| SCI350 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Environmental Perspectives

(GE, Science)

Environmental Perspectives offers a holistic study of the science behind sustainability challenges and technologies through the lens of the human experience. This course will present a brief history of environmentalism and the impact of economic, social and environmental issues on sustainability discourse in environmental documentaries, policy, current events and popular culture. This course will provide students a connection to community and society by showing them challenges from places around the world across sectors as well as allowing them to problem-solve and present their own solutions to some of the world's most "wicked" challenges. The course will cover topics of energy, waste, food, climate change, conflict minerals, ocean sustainability, urban design and development, poverty and social well-being.

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| SCI360 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Conservation and Zoos

(GE, Science)

Conservation and Zoos will introduce students to basic biological concepts before describing conservation biology and how zoos contribute to conservation. Conservation biology, its origins, and its significance in our world today will be discussed with a particular emphasis on how zoos are making an impactful contribution to biological conservation.

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| SCI365 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Animal Diversity

(GE, Science)

Animal Diversity will introduce students to taxonomic biological classification of living organisms before launching into a more in-depth exploration of the Kingdom Animalia. The feeding modes, senses, reproduction and more will be discussed for the varying animal groups; e.g., sponges (Phylum Porifera), flatworms (Phylum Platyhelminthes), jellyfish (Phylum Cnidaria), arthropods (Phylum Arthropoda – the largest phylum of all living organisms), Phylum Chordata including amphibians, reptiles, birds, mammals, and many more.

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| SCI388 | CREDITS: 3 | PREREQUISITE(S): INSTRUCTOR APPROVAL |
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## Special Topics in Science

(GE, Science)

Special Topics courses are intended to provide advanced or focused studies within a specific discipline. In the science discipline, topics can include, but are not limited to, advanced materials, quantum theory, calculus-based physics, game-based physics, advanced astronomy and advanced life systems.

# STUDENT INNOVATION PROJECT (SIP)

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|--------|------------|----------------------------------|
| SIP311 | CREDITS: 3 | PREREQUISITE(S): 60 CREDIT HOURS |
|--------|------------|----------------------------------|

## Student Innovation Project I

In this course, students will explore potential topics for their Student Innovation Project (SIP) based on their field of study and make progress towards a prototype to be submitted and demonstrated in the latter SIP courses as a graduation requirement. Exploration of innovation will occur through workshops and/or discussions and research exercises in which students explore management principles and project management techniques. Passing this course is contingent on approval of a SIP project by subject matter experts.

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|--------|------------|------------------------------------|
| SIP405 | CREDITS: 2 | PREREQUISITE(S): COM226 AND SIP311 |
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## Student Innovation Project II: On-Campus

SIP405 leads to completion, demonstration, and submission of a Student Innovation Project (SIP) in fulfillment of graduation requirements. Coursework in SIP405 is concentrated on the completion of SIP elements and their demonstration, including a working prototype developed in SIP311. Passing this course is contingent upon meeting all expectations related to SIP demonstration and collection of all artifacts related to SIP works. Students will also begin collecting works to be demonstrated in SIP410. Upon passing, students progress to SIP410. On-campus students only.

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|--------|------------|------------------------------------|
| SIP408 | CREDITS: 1 | PREREQUISITE(S): COM226 AND SIP311 |
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## Student Innovation Project II: Online

SIP408 continues a sequence of online courses begun in SIP311 leading to completion, demonstration, and submission of a Student Innovation Project (SIP) in fulfillment of graduation requirements. Coursework in SIP408 is concentrated on the completion of SIP elements and their demonstration begun in SIP311. Students entering this class are expected to have made progress towards a functional prototype of their SIP. This is a Pass/No Pass course contingent upon a subject matter expert (SME) review of the student's documentation of progress towards SIP completion. Upon passing, students progress to SIP409. Online students only.

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| SIP409 | CREDITS: 1 | PREREQUISITE(S): SIP408 |
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## Student Innovation Project III: Online

SIP409 concludes a sequence of online courses begun in SIP311 leading to completion, demonstration, and submission of a Student Innovation Project (SIP) in fulfillment of graduation requirements. Coursework in SIP409 is concentrated on the demonstration of SIP elements begun in SIP311. Students entering this class are expected to have completed a functional prototype of their SIP. This is a Pass/No Pass course contingent upon meeting all expectations for the SIP project and presentation of the SIP during scheduled synchronous reviews. Upon passing, students progress to SIP410. Online students only.

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|--------|------------|-------------------------|
| SIP410 | CREDITS: 1 | PREREQUISITE(S): SIP405 |
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### Boards Presentation: On-Campus

SIP410 leads to completion, demonstration, and submission of student works to be assessed by program subject matter experts (SME) in fulfillment of graduation requirements. Coursework in SIP410 is concentrated on the collection and demonstration of student works completed or to be completed in their programs of study. This is a Pass/No Pass course contingent upon meeting all course expectations related to collection and demonstration of Boards materials during scheduled reviews, as well as submission of all artifacts related to these works. This course is not eligible for students to receive an incomplete grade; all work must be completed in the designated course time frame. Students will automatically be placed in SIP410 in the subsequent registration period until they receive a passing grade.

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| SIP411 | CREDITS: 1 | PREREQUISITE(S): SIP409 |
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### Boards Presentation: Online

SIP411 leads to completion, demonstration, and submission of student works to be assessed by program subject matter experts (SME) in fulfillment of graduation requirements. Coursework in SIP411 is concentrated on the collection and demonstration of student works completed or to be completed in their programs of study. This is a Pass/No Pass course contingent upon meeting all course expectations related to collection and demonstration of Boards materials during scheduled reviews, as well as submission of all artifacts related to these works. This course is not eligible for students to receive an incomplete grade; all work must be completed in the designated course time frame. Students will automatically be placed in SIP411 in the subsequent registration period until they receive a passing grade.

## SPANISH (SPA)

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| SPA101 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Introduction to Spanish

(GE, Humanities)

This course is an introduction to the Spanish language and Spanish-speaking culture. Students will explore Spanish at an introductory level through coursework in pronunciation, vocabulary, verb conjugation, nouns and pronouns, and usage basics such as speaking and listening, as well as the culture of the Spanish-speaking world.

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| SPA201 | CREDITS: 3 | PREREQUISITE(S): SPA101 |
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### Intermediate Spanish

(GE, Humanities)

In this course, students will examine the topics learned in SPA101 and study them at a more advanced level; they will continue to acquire skills in Spanish reading, writing, speaking and listening. Emphasis will be on both conversational skills and grammatical analysis of the language.

## SOCIAL SCIENCE (SS)

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| SS310 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### East Asian Cultures

(GE, Social Science)

This course aims to give students an overall introduction to, and appreciation for, the culture of East Asia through exploration of its languages, religious systems, histories, holidays, and various social problems.

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| SS320 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Contemporary Global Issues

(GE, Social Sciences)

This course is a study of a variety of issues of international and global importance that are a part of the dialogue of contemporary geopolitics and social justice. The issues selected for examination reflect the most important events, trends, and problems facing citizens and leaders in an increasingly interdependent world.

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| SS388 | CREDITS: 3 | PREREQUISITE(S): INSTRUCTOR APPROVAL |
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### Special Topics in Social Sciences

(GE, Social Sciences)

This course will explore special topics in the field of Social Sciences.

## TECHNOLOGY (TCH)

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| TCH100 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Introduction to Design

True design stresses the importance of human beings in all aspects of thinking and practice. This course begins with exploration of design and the human dimension, discussing the nature of human beings and their physical, psychological, spiritual and/or cultural needs. Then, the role of human beings in the design process is considered, discovering how designers respond to human need as well as issues of value. Lastly, the course discusses the scope of design in personal, social and cultural environments, observing how design has permeated human life through images, physical objects, services and environmental systems. Students in the course will review, write, reflect and develop an understanding of design and its place in the human condition.

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| TCH115 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Thinking Strategies

This course will offer students a cross-disciplinary, project-oriented approach to applied thinking strategies as they may relate to technologists. Students will learn the logical basis, history and potential for application of the following dimensions of thinking: critical, systems, creative, lateral and parallel thinking. Assignments and projects will guide students toward an understanding of how thinking dimensions relate to their intended disciplines in emerging technology industries, as well as to their personal educational aspirations.

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| TCH125 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Agile Technology

Agile approaches is the way to development solutions that meet the needs of users/customers in the face of changing environments, customer desires, rapidly evolving competition and new technologies. To prepare for a life of creating technologies, UAT students use agile approaches, including scrum, as the backbone of essentially all their project development activities. This course instructs students in agile methodologies, terminologies and roles. Students will practice agile within this course to ready them for team projects throughout their time at UAT and in their careers after graduation.

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| TCH200 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Product Development

This course provides the student with an understanding of the product development lifecycle for technologies from inception to innovation to production and through distribution to the contemporary market. Product case studies and insights into long tail product development will be discussed.

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| TCH211 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Industry Innovation

Innovation is about creating ideas that can be executed in such a way that adds value to customers. This course explores major innovations of the contemporary era to identify success factors through methodologies, case studies and thought leadership. Topics include trend identification, problem-solving, project management, and various systematic methods of innovation. Students will be exposed to self-directed learning through process-oriented experiences and involved in idea generation through a proprietary framework. *(This course may also be offered for students enrolled in the Honors Program.)*

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| TCH270 | CREDITS: 3 | PREREQUISITE(S): TCH100 |
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### The Design Process

This course will expose students to the analytical processes and skills that underpin the creative process of product design. These processes may include user research, use cases and usability, ergonomic analysis, materials selection, production processes, hand drawing and sketching, comparative product research, model making, prototyping and testing. Additionally, students will develop AutoCAD skills designed to allow for 3D design of products.

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| TCH310 | CREDITS: 3 | PREREQUISITE(S): ENG101 |
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### Technology, Society and Ethics

The course will introduce students to essential concepts necessary to evaluate the social and ethical impacts of accelerating technology. Students will explore ethical theories, construct moral dilemmas, and consider the nature and meaning of real-world scenarios that highlight technological challenges that are influencing global societies of the 21st Century. *(This course may also be offered to students enrolled in the Honors Program.)*

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| TCH315 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Exponential Tech and Existential Risk

Exponential technology refers to the continued growth and performance of technology over time. Often aligned with the theory of Moore's Law, technology's capacity will continue doubling. AI, nanotech, genetic engineering, and information tech are rapidly advancing and offering benefits to society. They are also producing challenges. Existential risk relates to the potential risks that face humanity because of these technologies. For example, AI could assist in sorting data and delivering objective problem-solving effortlessly. Yet, it could cause unrecoverable global catastrophe and even human extinction. This course offers students an opportunity to explore exponential tech, its growth, trends, and future advances and the possible risks that are the topic of leading scientists and entrepreneurs, including machine ethics.

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| TCH405 | CREDITS: 3 | PREREQUISITE(S): TCH270 |
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## Technology Product Design Project

This course provides students a studio course experience to work in small teams producing two product designs across the course of the semester. Students will utilize all skills from prior design courses to produce proposal-driven design documents and drawings for two technology products. One product design will be driven by supplied customer need and one will be at the discretion of the student team. In the second product, a need case will be included in the submission.

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| TCH410 | CREDITS: 3 | PREREQUISITE(S): TCH270 |
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## Advanced Topics in Technology Product Design

This course explores a variety of technology product design topics and different subjects are included each time the course is offered over a calendar year. Topics explored in this advanced course may include materials and material innovation, visualization, environmental design, advanced human factors, and prototyping methods such as rapid prototyping and digital prototyping.

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| TCH451 | CREDITS: 3 | PREREQUISITE(S): INSTRUCTOR APPROVAL |
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## Contemporary Issues in Technology

This course will explore contemporary issues within technology from a sociopolitical, economic and ethical perspective. Students will evaluate and discuss the relationship between technological innovation and social change from a value conflict and decision-making perspective.

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| TCH490 | CREDITS: 3 | PREREQUISITE(S): INSTRUCTOR APPROVAL |
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## Forecasting Emergent Technologies

This course explores methods used in industry practice to identify and capture emerging technologies. Learning activities include exploration of case studies and trends within the current market. There will be a project for this course in a technology area of interest to the student.

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| TCH491 | CREDITS: 3 | PREREQUISITE(S): INSTRUCTOR APPROVAL |
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## New Technologies: Innovation, Production and the Market

This course provides the student with an introduction to understanding the confluence of multiple influencing factors at play in emergent technology. Factors for consideration in innovation, product creation and marketing will be discussed. Discussion will cover technology development from inception to market.

## TECHNOLOGY SPECIAL TOPICS (SPT)

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| SPT323 | CREDITS: 3 | PREREQUISITE(S): INSTRUCTOR APPROVAL |
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### Special Topics in Technology

Students will engage in unique or current topics related to Technology. Activities may include reports, special projects, group work or research.

## THEATER (THE)

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| THE105 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Innovation in Musicals

(GE, Humanities)

This course will not only explore the joys of musicals, which are many but also how this innovative art form has grown and changed over the years. With each leap forward musicals have maintained tradition while embracing the new. Tracking both the artistic and technological changes in musicals allows us to focus on the most groundbreaking shows, rather than the most popular.

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| THE130 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Movie Theory

(GE, Humanities)

Ever wonder why some movies feel different from others? This class will reveal the secrets. This course introduces the concepts and practices associated with how the written word is translated into visual language. During this course, students will have the opportunity to learn the art and theory behind motion pictures, including how lighting and cameras are used to create emotion, setting and dramatic emphasis. Topics include shooting styles, lighting, camera angles, continuity, composition and cutting techniques. Technical innovations in cameras, filters and lenses will be explored.

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| THE220 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Shakespeare in Film

(GE, Humanities)

This course combines the timelessness of Shakespeare's works with the innovation and technology of film to encourage understanding of the universal themes found in his work. Shakespeare's plays and poetry are analyzed side by side with film adaptations to interpret cultural, societal and political influences from the earliest silent films to the present. The inherent differences of film verses live theater will be explored to illuminate the disruptive and productive aspects of adaptation. *(This course may also be offered for students enrolled in the Honors Program.)*

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| THE230 | CREDITS: 3 | PREREQUISITE(S): ENG101 |
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## Character Development

(GE, Humanities)

This course develops the student's ability to create a fictional personality for use in novels, short stories, movies, animations, and video games. Stereotypes, archetypes, and allegory will be explored as a means for developing character attributes. Topics include the elements of character, symbolism, naming conventions, how to develop background, analysis of existing characters, and how to create a complete character profile.

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| THE238 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Acting and Movement

(GE, Humanities)

This course introduces the student to the basic principles of acting and movement in a highly collaborative setting. Techniques for memorization, concentration and relaxation will be explored. Topics include terminology used by directors, exercises in character interpretation and improvisation. Movement topics may include rhythm, alignment, isolation and body language interpretation. Monologues and short scenes may be performed and critiqued.

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| THE310 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## History of Movies

(GE, Humanities)

This course examines the technological advances that make movies magic. From the silent era through the present, students will explore the innovations that fueled film creation. World cinema and the Hollywood studio system will be studied through the viewing of classic and pop-culture films. This course explores mostly feature-length narrative films, placing them in their historical, cultural and technological context, therefore giving the student a foundation for interpretation and analysis.

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| THE320 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Introduction to Shakespeare

(GE, Humanities)

This course guides students past the linguistic challenges of Elizabethan English to encourage the understanding of the themes, literary elements, and theater conventions used in Shakespeare's work. A critical study of Shakespeare's plays and poetry are placed in cultural, societal, and political contexts allowing the student to discover that certain themes are timeless and shape our society today.

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| THE325 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Cinema Genre Studies

(GE, Humanities)

Students will delve into the historical, economic, political, and social factors that influence genre films. This course begins with an overview of what goes into the creation of a genre. It explores one or more specific genres in-depth, giving the student the tools to analyze and interpret how genres can define, constrict, and expand the movie-making creative process.

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| THE330 | CREDITS: 3 | PREREQUISITE(S): NONE<br>RECOMMENDED: THE230 |
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## Scriptwriting

(GE, Humanities)

This course is an introduction to writing for the screen (cinema, web, animation and/or game). Topics include plot development, format, classic paradigm structure, dialogue, voice, scope, and context. An emphasis is placed on developing and defining each student's individual style and personal themes. The student will create several complete-story scripts in the short form.

## VIRTUAL REALITY TECHNOLOGIES (VRT)

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| VRT101 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Introduction to Virtual and Augmented Reality



Creating and delivering immersive simulations requires specialized tools. As an emerging technology, the hardware and software associated with Virtual Reality technology changes rapidly. This course surveys the current forms of head mounted display and motion capture technology. It also introduces students to the major software tools used to create immersive environments. Students will work with and learn the roles of these tools as they are integrated to create virtual experiences.

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| VRT115 | CREDITS: 3 | PREREQUISITE(S): GAM101 |
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### Introduction to Serious Games



This course is an introduction to Serious Games and SIMS for applications such as general education, corporate training, military applications, healthcare and psychological therapies. Students actively explore the educational game prototyping process through the development of content-specific documentation and rich media. Leading serious game titles are showcased and examined. Topics emphasize the effectiveness of educational gaming, as well as the growing industry demand for SIMs, MMOs and other virtual environments to deliver quantifiable skills training. Students demonstrate an understanding of educational content-delivery methods and technologies.

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| VRT232 | CREDITS: 3 | PREREQUISITE(S): GAM200 |
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### Gamification



The game industry has developed a set of tools and practices for engaging player bases. This engagement has become part of the culture and expectations of interactive user experiences. The design psychology and philosophy behind gamification includes principles of engagement, interaction, motivation, socializing, competition, achievement, and self-expression. This course leverages these design principles to create activities, solve problems, and build interactions using game systems and mechanics.

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| VRT260 | CREDITS: 3 | PREREQUISITE(S): VRT115 |
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### Instructional Design



This course provides an exploration of interactive learning theory and the instructional design process. Students develop strategies to improve the learner's comprehension by delivering information in an engaging medium. This course emphasizes the many roles of the designer in the instructional development and evaluation process. Topics include conducting a needs assessment; classifying learning objectives; enhancing the learner's ability to master skills and procedures; sequencing content to facilitate comprehension; and developing methods to test behaviors, knowledge and perceptions.

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| VRT310 | CREDITS: 3 | PREREQUISITE(S): GAM218 |
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### Virtual Environments



Immersive digital environments provide students with simulated spaces that they can interact with and explore. Students will learn the elements of effective virtual environments along with how to construct them within the parameters of existing hardware to produce simulation that are realistic to its users. Topics such as latency, feedback, geometry, multi-person interaction, physics engines and data integrations will be learned by students.

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| VRT330 | CREDITS: 3 | PREREQUISITE(S): VRT310 |
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### Augmented Reality Development



Augmented reality technologies provide a new form of human experience by superimposing computer generated imagery over real-world images in real time. When used with mobile devices, augmented reality layers and enhances information by combining the wealth of internet information with live views of world. Individually and in a social context, augmented reality has applications within areas such as entertainment, travel, merchant selection and data analysis. During this course, students will learn the elements of augmented reality along with the software tools needed to link live mobile device camera displays to internet data.

VRT320

CREDITS: 3

PREREQUISITE(S): VRT310

## VR/AR User Experience Design

As game and simulation software development technology and techniques have come together, the ability to apply Virtual Reality and Augmented Reality solutions that maximize the strengths and uniqueness of the platform has become essential. Developing solutions that concentrate on the specific elements of these platforms and how the hardware, software, and design solutions create a user experience will set your applications apart from simple ports to the technology. Embracing UI, UX, storytelling, movement systems, control schemes, and platform best practices will separate average applications from applications that move the industry forward and push users into adoption of the technology as a mainstream experience.

VRT380

CREDITS: 3

PREREQUISITE(S): GAM310

## Serious Game Design

Games that teach, test, train and pose complex, realistic challenges to the player have been branded Serious Games. Using game technologies to teach is not a new concept, but the recent reinvigoration of this genre puts the spotlight on games that focus on giving the gamer new experiences and learning opportunities rather than an endless chain of aliens to slay. Using contemporary theories of electronic education, students will create and prototype games with a message to their mechanics. Students will study stealth serious games as well as institutional tools and tutorials, games based on scientific principles and simulation and the future of gameplay in education.

VRT420

CREDITS: 3

PREREQUISITE(S): VRT310

## Telepresence

In a connected world, the ability to attend and impact events from a remote location is an application of Virtual and Augmented Reality technology that has the potential to change the way people interact. This course will cover the technology behind implementing a telepresence solution as well as the design and experience implications of the solution. Project work will consider the audio, visual, tactile, movement, and interaction elements of a telepresence solution as well as the benefits of current and future applications of the technology as these solution are adopted and implemented.

VRT456

CREDITS: 3

PREREQUISITE(S): CSC202

## Augmented Reality

This course will explore and implement an augmented reality device(s) along with understanding how to enhance the user experience (UX). The focus will be on applications for the real world that are student designed and implemented with instructor guidance. Limitations and ethics of augmented reality will also be addressed.

VRT481

CREDITS: 3

PREREQUISITE(S): VRT310

## Virtual Reality World Build

This synthesis course will focus on the creation of completed virtual reality (VR) applications. Using pipeline and agile methods, this course simulates a production studio environment. Bringing together all the principles of virtual reality development, students will apply the principles of prototyping, design documents and integration of assets, code, hardware and testing to produce completed virtual reality applications. Students will work in teams and with students in other programs to fulfill production roles as they apply design, asset and programming techniques to complete VR projects in a learning environment that reflects a production studio.

# GRADUATE COURSE CODES AND DESCRIPTIONS

## KEY TO COURSE CODES AND DESCRIPTIONS

Letters used to denote a code prefix designate the topic area or course family associated with a course (refer to Course Category and Code Prefix List for complete listing).

Letter codes are arranged alphabetically by Course Category name in the Course Descriptions section of the catalog. Three numbers are employed as a course code suffix and indicate the course's level within its topic area. These numbers range from 100 to 699. Courses numbered between 100 and 299 are considered lower division courses. Courses numbered between 300 and 499 are considered upper division courses. Courses numbered between 500 and 699 are considered graduate level courses. All course numbers below 100 are considered preparatory and do not apply to overall credit hours in a degree program.

Prerequisite(s) indicates progression of courses. Prerequisites are met by completing the foundation course with a minimum passing grade of D (1.0) unless otherwise specified.

## COURSE CATEGORY AND CODE PREFIX LIST

Master of Science            MS

## MASTER OF SCIENCE (MS)

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|-------|------------|-----------------------|
| MS501 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Game Production and Documentation

The ability to clearly communicate exactly what a game is, how it plays, what it will feel like, how it will look and, more importantly, how a team will get it done is what makes or breaks projects at both the pitch stage and during review points in actual development. Students will create a game design document representative of professional quality documentation found in leading game studios and master the art of pitching to multiple audiences from team members to executive decision makers.

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| MS503 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Game Marketing and Advertising

This course examines the progress and potential for the marketing and advertising of games. The unique needs of this market and target audience will be analyzed. In addition, the traditional marketing functions of product, price, distribution and promotion as related to the game industry will be discussed.

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| MS504 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Critical Game Studies

This course will cover advanced critical techniques and approaches to game design, game theory and the gaming audience. Using techniques of critical theory, ludology and game theory, students will take a deep look at the structure of games and their interaction with the user. Students will be expected to produce their own critical research based on the games and ideas studied.

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| MS507 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Introduction to Cyber Security

The goal of this course is to provide master's-level students with the necessary applied security knowledge and background to effectively continue with their cyber security program. This course will help them to design and implement an effective security strategy in a corporate network environment. This course will cover anti-virus tools, security policies, password management, risk analysis, security policies, network communication vulnerabilities, enhancing security with cabling and network hardware, understanding different types of firewalls, packet filtering and NAT, setting up and securing a virtual private network, and understanding hacker exploits. Current industry trends will be reviewed.

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| MS508 | CREDITS: 3 | PREREQUISITE(S): MS507 |
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### Governance, Risk Management and Compliance

The challenge of holistically aligning information technology and organizational objectives is a primary concern of executive management. This course will explore the effective governance of an organization's Information Technology (IT) investments and roles in Federal and International Standards and Regulations. The course will also cover performance, risk, contingency management, and the integration of federal and international standards into your corporate governance strategy.

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| MS509 | CREDITS: 3 | PREREQUISITE(S): NONE |
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### Game Processes and Pipeline

Games and game development are a complex series of decisions, iterations, and processes linking together to complete a full production. At the core of this complexity is the game production pipeline, discipline-specific pipelines, and software development methodologies. To be effective in production and management roles, it is essential to understand the workings of these processes and pipelines. Students will take part in a full game production working with development teams to implement, manage, and utilize these production techniques.

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| MS511 | CREDITS: 3 | PREREQUISITE(S): MS507 |
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### Principles of Incident Response, Business Continuity and Disaster Recovery

This course will provide a comprehensive overview of disaster recovery and countermeasures for networks and businesses. Students will assess risks in the enterprise, determine critical business components, develop an enterprise disaster recovery system and develop disaster policies, procedures, departmental roles and communication processes for enterprise networks. Students will also produce a disaster recovery document of procedures and policies to implement training, testing and rehearsal of a disaster recovery.

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| MS514 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Blockchain Architecture

This course presents background fundamentals associated with Blockchain so that students understand its context and potential applications. Topics covered include the history of Blockchain, its open source evolution and current architecture. Server and network architecture associated with current Blockchain infrastructure are covered along with the structures used to define Blockchains, their ledgers, encryption, distribution and validation.

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| MS516 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Makerspace Tools

Students will learn and use the technologies available in the Maker Studio to create physical prototypes of their personal designs. Rapid prototype processes and procedures will be effectively utilized with both hardware and software tools in the creation process. Basic and intermediate techniques will be discussed and used to bring student's ideas into existence.

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| MS520 | CREDITS: 3 | PREREQUISITE(S): MS507 |
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## Principles of Cyber Forensics

This course is a guide through the world of federal and international information security standards that guide the way organizations are doing business today. Research and analysis are conducted on how US security regulations vary from industry to industry, including those in healthcare, education, military, federal matters, utilities and financial matters. International security standards will also be reviewed to understand the impact of implementing appropriate information security mechanisms in a global organization.

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| MS528 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Founding and Operating a Startup

This course develops the traits associated with being a successful founder. From setting vision, to examining assumptions, selling your product, developing judgement and cultivating personal capacity the role of founding a startup requires specific capacities that will be described and practiced within this course.

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| MS539 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Programming Concepts

Students will be immersed in the fast-paced world of programming and software development. They will learn the foundational concepts and skills of programming such as algorithms, flowcharting, input/output, conditionals, loops, and arrays in the context of mobile app development. Objects and object-oriented programming will be explored as students complete personalized programming projects.

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| MS544 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Organizational Metrics and Analytics

Knowledge work and decision making associated with technology teams, products and organizations are often best framed by data. This course explores different approaches to data and their application. As a result of this course, students will be capable of understanding the roles of big data, snapshot data and over time data within technology frameworks and be capable of applying each towards effective decision making along with individual, team, project and organizational success.

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| MS545 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## The Business of Gaming

This course addresses the economics of the game industry. This includes the ways games are funded, marketed and sold and the relationships between publishers, developers, retailers and other companies. Other topics to be covered include legal issues of gaming, intellectual property laws, the social forces that impact games and the governmental and legislative forces that impact game content.

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| MS546 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Startup Funding and Marketing

This course provides students with understanding and skills needed to resource and communicate startup organizations. Focus will be made on lean and social models of funding and connecting the value of products to their customers. Additional time will be spent on the cultivation and implication of venture capital.

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| MS548 | CREDITS: 3 | PREREQUISITE(S): MS539 |
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## Advanced Programming Concepts and AI

Advanced programming skills will be developed and utilized building on student's foundational programming skills and experience. They will be introduced to and implement Artificial Intelligence and Machine Learning.

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| MS549 | CREDITS: 3 | PREREQUISITE(S): MS539 |
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## Data Structures and Testing

Data structures and efficient algorithms are core components of modern software systems. Students will study and implement many of the foundational data structures and algorithms such as linked lists, stacks, queues, trees, graphs, and sorting. They will learn algorithms and techniques to build efficient systems, and they will utilize the full software development process to create high quality systems and applications that are thoroughly analyzed and tested.

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| MS555 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Agile Project Development

Every major development, breakthrough, or innovation is the result of a project that is managed well. Companies have risen and fallen due to the success and failure of project management. In this course, students will learn the fundamentals of solving problems at the project level by using real world examples and hands-on experience. The Agile process will be used in depth, along with other methodologies.

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| MS558 | CREDITS: 3 | PREREQUISITE(S): MS507 |
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## Principles of Network and Application Security

This course covers the implementation of the key components of the network and applications that are needed to run the business. This course will cover the concepts of defense-in-depth and the interplay of technologies in securing your organization. This course will also discuss security architectures and the importance of appropriate placement of key network and application functionality in protecting the organization.

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| MS559 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Agile Approaches to Startup Organizations

Agile methods have become a backbone approach for teams and organizations as they move towards goals within rapidly evolving settings. Rapid builds, high levels of transparency within workgroups and getting feedback from intended users at each iteration exist at the core of agile approaches. Agile approaches such as scrum increase the success of technology projects and technology organizations. This is particularly true within startups and new product development. This course instructs in the concepts of Agile along with its application using a variety of established and accepted techniques. Students will apply what they learn in team settings both as a path to tech product development element and as an organizational tool.

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| MS577 | CREDITS: 3 | PREREQUISITE(S): MS516 |
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## Fabrication, Materials and Build Techniques

Students will utilize advanced Maker Studio technology, processes, and techniques to create effective prototypes. Students will learn how to adapt their designs and fabrication processes to various constraints such as material properties and other real-world limitations. They will analyze design decisions and determine their impact on the fabrication process. Advanced software tools will be used and their applications to the design and prototyping process will be discussed.

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| MS579 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Special Topics in Technology

Special topics courses are intended to provide focused studies within a specific discipline. Students in this course will engage in the advanced study of a specific area of technology.

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| MS582 | CREDITS: 3 | PREREQUISITE(S): MS514 AND MS539 |
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## Coding Blockchain

Students in this course will learn how Blockchains are created and undertake the software development required to build them. Students will learn how the algorithms and architectures of Blockchains are represented in software and exist within hardware. Using industry development environments, basic Blockchain applications will be created.

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| MS587 | CREDITS: 3 | PREREQUISITE(S): MS548 |
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## Databases and Web Development

This course will teach how to implement databases and connect these to a website. Databases will be covered from introduction to implementation and include some form of SQL for access to the databases. In addition, basic web page development including tools such as CSS and http will be included. Finally, the integration of the website with connectivity to the database will be implemented.

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| MS603 | CREDITS: 3 | PREREQUISITE(S): MS501 |
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## Game Project

This course concentrates on techniques to produce a game from the standpoint of production. Students will tackle topics such as people management, team building, communication and workflow to grasp the complexities of running a development team. The types of projects, including platform and genre, will change from semester to semester.

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| MS622 | CREDITS: 3 | PREREQUISITE(S): MS577 |
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## Agile Prototyping and Product Development

The Agile methodology will be used and applied in the development and production processes as students turn their designs into products. Opportunities for innovation will be identified, and iterative design methods will be applied. Techniques for optimizing designed based on manufacturing feedback will be utilized, and students will learn and apply topics customized to their product development.

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| MS624 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Managing People in a Technology Environment

In the recent past, it has become clear that with the advent of the information age and particularly in technology environments, managers in technology environments face unique challenges and traditional management models may not be successful. This course provides students an in-depth look and opportunity to analyze different management models, the unique challenges facing technology managers and the opportunity to explore new and emerging management models designed for the technology environment.

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| MS628 | CREDITS: 3 | PREREQUISITE(S): MS587 |
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## Cloud Computing

Cloud computing and distributed data and systems are major components of many modern systems. The infrastructure as a service (IaaS) and platform as a service (PaaS) cloud computing models will be studied and implemented using cloud computing providers such as Azure, Google Cloud, and AWS. Cloud-based solutions will be designed, developed, and implemented leveraging the strengths of distributed architectures.

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| MS631 | CREDITS: 3 | PREREQUISITE(S): MS507 |
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## Cyber Posture Analysis

This course will provide students with the critical skills required to conduct full spectrum information security assessments and evaluations on a variety of organizations. Students will explore methodologies for organizing these projects, coordinating with customers, setting the scope of the work, ensuring the work meets regulatory requirements, conducting the actual security assessment and evaluation efforts, and providing the customer with meaningful results that are directly applicable to their organization. Students may be required to work as a team to achieve the course objectives, simulating true-to-life projects.

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| MS636 | CREDITS: 3 | PREREQUISITE(S): MS582 |
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## Blockchain Application Prototyping

Having previously gained fundamental skills in creating Blockchains, students will further develop their skills by building categories of applications that are being advanced as compelling reasons for this technology to be actively explored. Students will explore and build Blockchain applications in areas of high interest that include digital contracts, transactions, currency, identification, records and voting.

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| MS649 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Technology Forecasting and Change Management

This graduate-level course is designed to provide the student with practical and applicable insights, strategies and critical thinking skills to anticipate, manage and embrace periods of rapid and dynamic change, innovation, and uncertainty across all spectrums of the business. Further, this course prepares students to foster and nurture a culture and organizational framework for innovation, creativity, change management, and accelerated go to market strategies.

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| MS660 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Innovator's Boot Camp

There is a long-standing debate on whether entrepreneurs are made or born. More and more research suggests the mindset of an entrepreneur is learned, although the skillset is taken far outside their comfort zone. Through trials, failures, learning how to endure, and growing through adversity, students learn to be capable of more than they ever thought possible. This course consists of carefully curated challenges specifically designed to stretch comfort zones of future entrepreneurs, innovators, and domain experts. Students will become mentally tough and will learn skills and behaviors for success—skills that can't be taught from a book.

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| MS680 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Create and Incubate

In this course students identify opportunities, originate innovative concepts, and turn them into rough prototypes. In the ideation phase, students become familiar with UAT's New Tech Lab, Hardware Robotics Lab, and Maker Space as they learn about applied methods and materials. The experience prepares students to generate potential outcomes and turn concepts into doable projects. Students learn how to evaluate and test concepts for viability and usability, noting when to pivot and when to persevere.

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| MS681 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## MVP and Launch

Applying skills in Agile management and the iteration process, students take full ownership of their projects and establish production build out options. Students experience the evaluation process toward an analysis of minimum viable product (MVP) and the entrepreneurial meaning of "done". Assessing hits and misses, students revisit and refine their projects and pre-launch. As an analysis of feasibility and completion, students defend their methods and materials in aiming toward market ready.

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| MS682 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Startup Strategy

This course offers a personalized learning as it takes the students' unique needs and abilities into an entrepreneurial experience of industry standards and trends. Students are informed about field-related businesses that align with their products and/or degree area. This adaptive learning process forms a guidepost for determining what business structure best meet their needs. Through applying strategic practices, students develop skills to write their vision and mission, determine business models, and formalize a Strategic Plan, ready to present to stakeholders and venture capitalists.

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| MS683 | CREDITS: 3 | PREREQUISITE(S): NONE |
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## Industry Immersion

The aim of this course is to expose students to an immersive environment where they meet industry experts, are mentored, and given an opportunity to present to a variety of potential stakeholders. This course also offers students a platform to better forecast, evaluate, and manage change in the technological era. Students learn how to identify the needs to leaders in their fields and strategize innovative opportunities that will assist leaders and their teams.

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| MS688 | CREDITS: 3 | PREREQUISITE(S): MS539 |
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## Mobile Development

This course will introduce and implement mobile development on 2 platforms – iOS and Android. Students will develop apps for both with an emphasis on GUI design for mobile devices, messaging protocols, and application of streaming data sources.

# INNOVATION CLAIM

To take nostalgic gamer culture and apply it to  
to make it fun and engaging

