COME JOIN
US ON THE
FRONTIER
University of Advancing Technology
UAT
Learn. Experience. Innovate.
ONLINE
VIEW
ONLINE

YOUR PASSION IS TECHNOLOGY

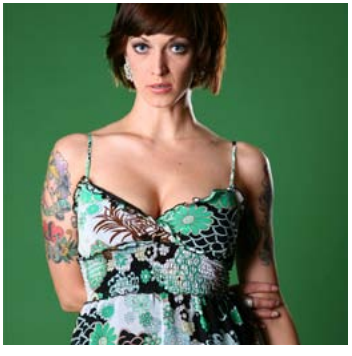
Whether it's designing video games, writing programs or developing network security, you love it and you spend many of your waking hours intensely involved with technology. UAT is a community of geeks—passionate seekers of knowledge and truth in an ever-expanding universe of technology.

www.uat.edu/online

If it wasn't, you wouldn't be thinking about a college degree. You don't want to be "just" a technician, you want to use technology to create new worlds and improve this one. The right education for you is one that combines a respected college degree with a powerful focus and hands-on experience in state-of-the-art and advancing technology. Without true expertise in the latest technology, you know that you can't accomplish all that you want to. Without a college education, you could have difficulty convincing others of what you can do.

UAT-Online was created specifically for people like you, with intelligence, a passion for technology and the challenge of time or distance to pursuing an on-campus education. Whether you are just starting your college experience, continuing an educational path you began earlier or trying to schedule courses around a full-time job, you'll receive an education that combines the classic elements of a university education with a unique focus and hands-on experience in advancing technology.

YOUR CONCERN IS THE FUTURE



EARN A RESPECTED DEGREE WHERE AND WHEN YOU WANT

UAT has been delivering online education successfully for over a decade. Every course offers a comprehensive learning environment that is the closest thing to actually being in class. You can pursue your degree from anywhere with a computer and Internet access, at any time—day or night—you choose.

As a UAT-Online student, the skills you learn will be reinforced and expanded as you develop complex, polished final projects. Students will also get their hands on industry-standard toolsets and techniques. Unlike other schools that focus narrowly on software skills, the classes will also encourage creative and design skills. The pre-determined curriculum is structured and goal-oriented for each degree, allowing you to stay focused on developing the skills and knowledge you need to be successful.

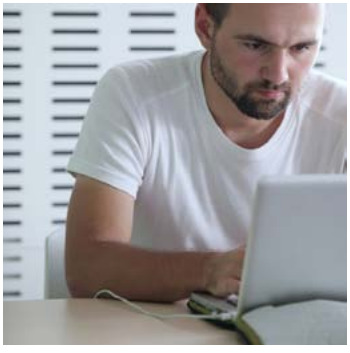
At the undergraduate level, classes are taken one at a time, each lasting five weeks. This allows online students to concentrate 100% on individual course material. Three five-week classes make up the 15-week semester. Students will move through their degree program and courses with the same group of peers with which they start. This enhances group interactions and projects, while building a sense of community online.

Please see www.uat.edu/fastfacts for the latest information about degree program performance, placement and costs.

15 Week Semester

5 Week Course | 5 Week Course | 5 Week Course

SYNCHRONIC LEARNING



UAT has developed a vibrant, multi-faceted online academic environment where students are challenged to explore new and traditional concepts, practice what they learn in real-world situations and achieve their full potential. The combination of research, scholarship and application creates technically adept graduates who are equally at home in academia and the working world, and are valued by both.

The UAT-Online degree programs utilize a predictable and manageable rhythm in all online classrooms. Our leading edge courses are constructed with a logical progression of concentrated curriculum creating a balance throughout the course. The scope and sequence of the learning objectives are equally balanced. The courses are structured with consistent due dates and participation requirements from week to week and from course to course. Assignments and discussions are developed and supported by UAT's signature learning methodology, YRBL (Year Round Balanced Learning.) YRBL has evolved over the last twenty five years to UAT's exclusive process of Synchronic Learning. Synchronic Learning™ incorporates real-world, hyper relative external learning to compliment each course's objective. This allows students to experience learning from a variety of perspectives in a steady, consistent and nurturing environment that is designed to produce innovators and industry leaders.

STAYING CONNECTED WITH THE UNIVERSITY

As a UAT-Online student, you will be able to connect to the University at all times through the Intranet. You will enter and exit your online classroom through the Intranet, as well as participate in live chats with UAT deans, check email and grades, and read the latest UAT news and events.

www.uat.edu/Intranet

WE BRING THE CLASSROOM TO YOUR HOME

UAT has developed an online classroom to ensure your college experience is every bit as diverse, challenging and rewarding as though you were right on campus. While typical online programs consist of nothing more that reading chapters and taking quizzes and tests, UAT-Online programs immerse students in semester-long projects, group activities and threaded discussions. You will get to know fellow students and instructors as if you were in a physical classroom with them.

CLASSROOM COMPONENTS

THREADED DISCUSSION AND CHAT BOARDS

Students can communicate with instructors and classmates through threaded discussions. These interactive discussions covering course materials and related issues require students to participate and become active in the course.

GROUP PROJECTS AND ACTIVITIES

UAT-Online students have the capability to interact with other students in their classes in a group environment. When a group is created, special links in email and document sharing will be automatically created for the group. Also, a separate chat room is automatically created for each group, to which only the members of that group have access. Students are encouraged to communicate and work together within the online classroom, and will often form online study groups and help each other through projects.

ASSIGNMENTS AND GRADING

Students have constant access to all assignments and grades to keep track of their progress in the online classroom. Lesson plans and assignments are clearly defined, allowing busy students to plan ahead of time for big projects. If there are any questions regarding assignments or grades, students can email their professors. Questions are typically answered within 24 hours.

HELP WITH ASSIGNMENTS OR THE ONLINE CLASSROOM

Through live chats, students can receive tutoring and help from both instructors and their peers. There are virtual tools, such as interactive whiteboards, to assist communication. If students encounter technical or connectivity problems within the online classroom, there is a 24-hour technical help desk available.

UAT-ONLINE PROGRAM REQUIREMENTS

Students enrolled in UAT-Online programs must meet the requirements stipulated in the Minimum Technology Requirements. Additionally, UAT students may complete an online skills assessment to ensure they have basic technology skills. These assessments include an evaluation of the suitability for learning in the online environment, as well as an orientation to the online classroom delivery platform.

ONLINE DEGREE PROGRAMS

ASSOCIATE AND BACHELOR OF ARTS

> Game Art and Animation
> Game Design
> Virtual Modeling and Design

ASSOCIATE AND BACHELOR OF SCIENCE

> Advancing Computer Science
> Game Programming
> Network Security
> Technology Forensics

CORE CLASSES

Students within all of UAT's colleges take a common University Core—a set of courses that provide a foundational knowledge base associated with fundamental proficiency in professional technology practice as well as lifelong learning skills. The University Core is comprised of foundational courses for both the Arts and Sciences programs and each class prepares students for the pursuit of any arts or sciences degree offered by the University. Regardless of their selected degree, all students within the University are required to complete the Core curricula in order to earn their degree from the University.

UNIVERSITY CORE OBJECTIVES

Bachelor Degree

- Articulate at least four current legal issues applicable to technology fields and evaluate and discuss the potential impact of these issues on technology organizations.
- Articulate and apply the roles and requirements for successfully managing a technology-based project and serve on a project team from concept to completion.
- Produce a portfolio of complete, complex works representative of the technology major being studied.
- Apply a diverse set of thinking approaches in appropriate contexts to technology-based and interaction-based situations to produce successful outcomes.
- Apply knowledge of future studies techniques to articulate potential emerging technology environments and their impacts.
- Articulate at least four of the current ethical challenges that face a globally diverse, technology-connected society and analyze and discuss the potential impacts of these challenges.
- Identify historical, contemporary, and potential emerging technology trends and apply that knowledge to analyze the challenges and impacts of technology development.
- Produce and present an innovative student project.
- Apply knowledge from the discipline being studied through internship.

UNIVERSITY CORE COURSES

Bachelor Degree

LAW370**O** Legal Issues in Technology

MGT112**O** Project Management in a Technology Environment

PRO102**O** Professional Skills Development

PRO211**O** Student Innovation Project

PRO481**O** Student Innovation Project & Portfolio Presentation

TCH150**O** Technology and Society

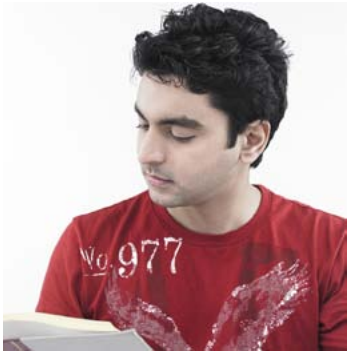
TCH301**O** Ethics in Technology

INT350**O** Internship

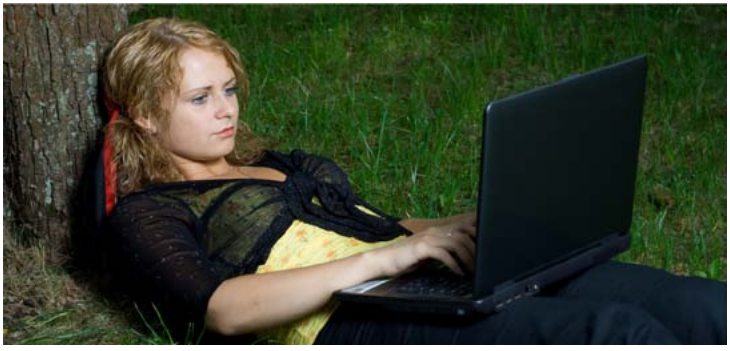
GENERAL EDUCATION

The framework of the general education program at the University is designed to provide students with both a depth of study and a variety of general education courses. Such courses provide students with the opportunity to expand their understanding of the world around them and place their technology disciplines appropriately within relevant contexts. As a technology-focused environment, UAT invests a great deal of time and energy in the creation, development, support and assessment of the general education program in order to ensure that UAT graduates are provided with meaningful and varied learning experiences.

www.uat.edu/online



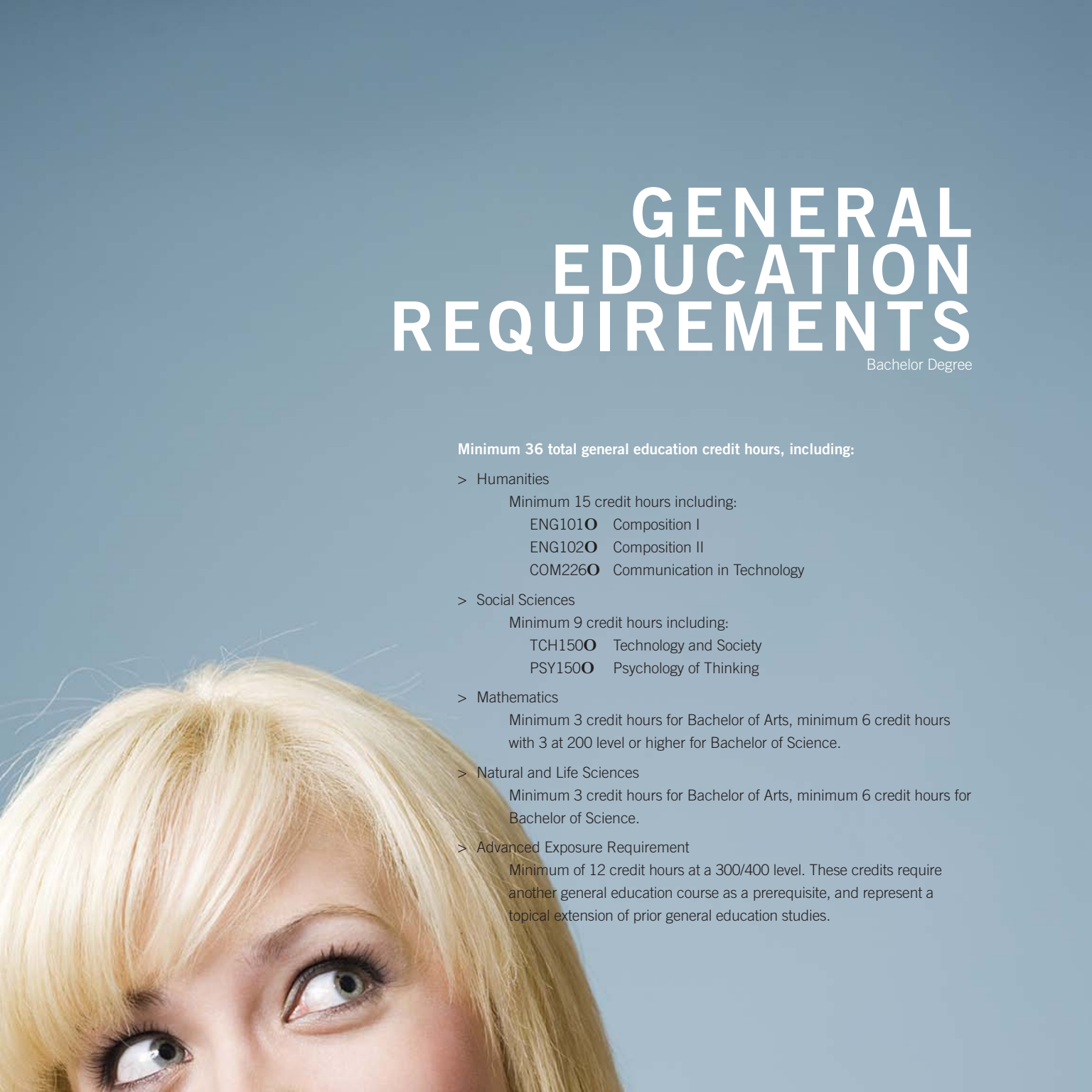
GENERAL EDUCATION LEARNING OUTCOMES



- Students employ a diverse set of thinking approaches in appropriate situational contexts to produce successful outcomes
- Students achieve an appreciation and understanding of the repeating underlying forces that affect technology and society throughout history
- Students experience foundations in the non-technical theoretical knowledge associated with their majors
- Students create multi-page documents that demonstrate the ability to develop and execute complex thoughtful analysis in a written format
- Students are able to effectively develop, execute, communicate and give verbal presentations in support of projects and portfolios
- Students are effective in research and inquiry activities in support of learning and demonstrate problem solving capabilities

GENERAL EDUCATION REQUIREMENTS

Bachelor Degree



Minimum 36 total general education credit hours, including:

> Humanities

Minimum 15 credit hours including:

ENG101**O** Composition I
ENG102**O** Composition II
COM226**O** Communication in Technology

> Social Sciences

Minimum 9 credit hours including:

TCH150**O** Technology and Society
PSY150**O** Psychology of Thinking

> Mathematics

Minimum 3 credit hours for Bachelor of Arts, minimum 6 credit hours with 3 at 200 level or higher for Bachelor of Science.

> Natural and Life Sciences

Minimum 3 credit hours for Bachelor of Arts, minimum 6 credit hours for Bachelor of Science.

> Advanced Exposure Requirement

Minimum of 12 credit hours at a 300/400 level. These credits require another general education course as a prerequisite, and represent a topical extension of prior general education studies.

MAJOR

Majors are established by the University in order to provide specialization and advanced work in a technological discipline. Each major represents an industry-current technology field, and each major 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. Students are encouraged to seek out guidance from their Academic Advisor when making course choices for their major. Please geek responsibly.

www.uat.edu/online

ARTS DEGREE PROGRAMS

Students may pursue a Bachelor Associate of Arts with these majors:

GAME ART AND ANIMATION

GAME DESIGN

VIRTUAL MODELING AND DESIGN

ARTS DEGREE REQUIREMENTS	BACHELOR	ASSOCIATE
Program Length in Weeks	205	105
Minimum General Education Credits	36	15
Minimum Core plus Degree-Specific Credits	84	45
Minimum Total Semester Credits	120	60
Within 120 minimum credit hours, the following requirements also apply:		
> Minimum Degree-Specific Credits	36	18
> Minimum Total 300/400 Level Credits	40	–
> Minimum Art Credits	12	6

ARTS DEGREE PROGRAMS
GRADUATION REQUIREMENTS

> Successful completion of requirements in an approved Program of Study.

> Completion of Student Innovation Project and portfolio requirement. Student Innovation Project and portfolio requirements include the submission and review of primarily digital artifacts to demonstrate the student's capabilities within the discipline being studied. (Associate's degree candidates must complete PRO211 in the Student Innovation Project courses in order to be eligible to graduate.)

> Successful completion of an internship.

> Achieved a minimum 2.0 CGPA on a 4.0 scale.

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.

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 3D art assets for multiple video game platforms such as PC, consoles, handheld games, Internet, phone and other hybrids. Students will master the artistic principles used in 3D video games art asset creation such as color theory, lighting, shading, anatomy, life drawing, perspective, scene staging, modeling low polygon and high polygon, 3D mesh topology, texturing, rigging, hand key character and prop animations as well as motion capture and facial animation. 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
OBJECTIVES

- Establish and defend an artistic style within your work based on sound artistic theories, practices and knowledge.
- Create and integrate into a video game environment 3D video game art assets and animation utilizing industry-standard software tools and techniques.
- Develop original assets for multiple video game platforms such as web, console, PC and handheld gaming platforms emphasizing the differences and similarities of each.
- Working within confines of an industry-standard production pipeline, develop and modify video game art assets and animation.
- Build 3D video game animation utilizing techniques such as hand keying and motion capture to create blend poses, loops, re-targeting animation and character rigging.
- Design art assets in order to facilitate the completion of a game project and implement a given game design.

Please see www.uat.edu/gameart for the latest information about degree program performance, placement and costs.

GAME DESIGN

Game Design students focus on the design principles, skills and techniques required to create mechanics, design documents and functioning prototypes for innovative game projects. Game Design students will be exposed to all the tools of the trade, as well as 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. 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 numerous game platforms available in the marketplace. 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 leadership skills to see projects through from initial concept to publisher-ready final product.

GAME DESIGN
OBJECTIVES

- Prototype and build original games for multiple platforms, including complete documentation, prototypes and complete games using the full game production pipeline.
- Create and implement game elements, systems and play mechanics using industry-standard tools, techniques and production methods, including both art and scripting/programming applications.
- Develop critical analysis skills and master best practices of effective design through the study of games across platforms and genres.
- Establish leadership, communication and project management skills by participating in team projects with students from other disciplines using industry-standard team and project management techniques.
- Demonstrate high-level writing and analysis skills to promote the creation of clear, concise documentation and strong communication of design elements and mechanics to both programming and art team members.

Please see www.uat.edu/gamedesign for the latest information about degree program performance, placement and costs.

VIRTUAL MODELING AND DESIGN

Digital modeling and animation technologies have become a part of many entertainment industries but the availability of these technologies for more serious and productive businesses is becoming main stream. Whether developing new ways to produce electronic assets or using these electronic assets do view data or virtual spaces, the technology used to design, model and view information is advancing. Applications in this degree can vary in focus from using technology to develop 3D models, using electronic assets to visualize data outputs or linking the electronic assets and real-world assets together to enhance the understanding of the context of a situation. Each of these presents specific challenges to the developer but all rely on the integration of visualization and information.

VIRTUAL MODELING AND DESIGN OBJECTIVES

- Establish and defend an artistic style within your work based on sound artistic theories, practices and knowledge.
- Build and modify 3D assets utilizing advanced 3D visualization software and hardware to capture real-world objects and animation.
- Integrate animated visualization with static data to visually display the results or outcomes of the data, such as studies of movement or accident recreation.
- Analyze and display real-time data utilizing animated visualization to enhance the understanding of the data such as stock market trends.
- Create an animated visualization that accurately simulates the effect of a parametrically-based, physics-driven particle system in a virtual 3D environment.
- Create an augmented reality, animated visualization in which physical and virtual objects coexist and can be interacted with in a shred space and environment.

Please see www.uat.edu/vmd for the latest information about degree program performance, placement and costs.

SCIENCE DEGREE PROGRAMS

Science degree students may pursue a Bachelor or Associate of Science degree with these majors:

ADVANCING COMPUTER SCIENCE

GAME PROGRAMMING

NETWORK SECURITY

TECHNOLOGY FORENSICS

SCIENCE DEGREE REQUIREMENTS	BACHELOR	ASSOCIATE
Program Length in Weeks	205	105
Minimum General Education Credits	36	15
Minimum Core plus Degree-Specific Credits	84	45
Minimum Total Semester Credits	120	60
Within 120 minimum credit hours, the following requirements also apply:		
> Minimum Degree-Specific Credits	36	18
> Minimum Total 300/400 Level Credits	40	–

SCIENCE DEGREE PROGRAMS
GRADUATION REQUIREMENTS

- Successful completion of requirements in an approved Program of Study.
- Completion of Student Innovation Project and portfolio requirement. Student Innovation Project and portfolio requirements include the submission and review of primarily digital artifacts to demonstrate the student's capabilities within the discipline being studied. (Associate's degree candidates must complete PRO211 in the Student Innovation Project courses in order to be eligible to graduate.)
- Successful completion of an internship.
- Achieved a minimum 2.0 CGPA on a 4.0 scale.

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.

ADVANCING COMPUTER SCIENCE

The Advancing Computer Science (ACS) degree involves students in the craft of programming. 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. The 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, computing theory and complex software design are important.

ADVANCING COMPUTER SCIENCE OBJECTIVES

- Describe, implement and analyze fundamental data structures including lists, trees, hash tables, and graphs, and algorithms including sorting and searching.
- Describe and apply the mathematical and theoretical basis of computer science and computer architectures.
- Create a quality object-oriented software solution that meets specified requirements.
- Follow a software development process to analyze a problem, and to design, build, and test a software system in a team environment.
- Demonstrate applicable skills using more than one programming language, development environment, platform, and source control system.
- Design and implement a simple multitasking operating system for a specified hardware platform.
- Design and implement a software system that integrates multiple platforms.
- Design and implement a compiler for a simple programming language.
- Design and implement a software system that effectively leverages multiple cores.

Please see www.uat.edu/acs for the latest information about degree program performance, placement and costs.

GAME PROGRAMMING

Courses in game programming will emphasize the essential issues and the skills required to develop games for multiple platforms such as web, console, PC and mobile devices. 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 specifically focus on game-specific features and techniques. Game programming emphasizes C++ programming, scripting, data handling, DirectX/Open GL development, game engine architecture, gameplay interaction, artificial intelligence, networking and the use of middleware and industry APIs. Students in game programming will also develop a critical approach to the study of gameplay, interaction and design. The UAT game programming student will have a broad, deep skill set and be comfortable on many platforms and with a myriad of languages.

GAME PROGRAMMING
OBJECTIVES

- Analyze software needs and design, build and test software systems in a team environment using industry-standard software engineering processes encompassing all phases of the software lifecycle.
- Demonstrate the ability to choose the most appropriate programming languages, standards and technologies to meet the requirements of specific projects and communicate these decisions clearly.
- Using the principles and languages standard in video game programming, create and implement original games utilizing industry-standard tools and software for web, console, PC and mobile game platforms.
- Demonstrate detailed knowledge of industry project management and control techniques such as waterfall, scrum and agile approaches to project organization.
- Design and develop the architecture needed to support a complete game project, including, but not limited to, rendering, gameplay, data handling, networking and integration of middleware.

Please see www.uat.edu/gameprogramming for the latest information about degree program performance, placement and costs.

NETWORK SECURITY

A network security specialist is a professional who focuses on ensuring information confidentiality, integrity and availability. This includes the design of information assurance programs, policies, procedures and architecture utilizing the concepts of "security by design." 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. Professionals in this career path may be highly technical and practice active (and sometimes aggressive) technical security methodologies to test and verify security implementations at various levels within an organization.

Security professionals possess intimate knowledge of technical business critical components. They also provide analysis and assessment of the security risks and requirements of those information systems while still developing non-technical skills such as teamwork, troubleshooting, problem solving, documentation and interpersonal communication. 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 workforce.

NETWORK SECURITY OBJECTIVES

- Visualize, explore and communicate a network infrastructure design with a diagram and documentation that includes identified hardware components, connections to outside world, identified physical layer connectivity (media),addressing, using visualization and diagramming tools.
- 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, antivirus tools, patch management, auditing and assessment.
- Construct, implement and document a script or a program to automate a security-related process or other task such as installation, administration, management, mapping resources, logon scripts, patch management, updates, auditing, analysis and assessment.
- Create, establish and document a policy, procedure or process that can include a disaster recovery plan, a business continuity plan, incident response policy, acceptable usage document, information security policy, physical security policy, assessments or troubleshooting procedures.
- Develop a research report or implementation plan concerning legal and ethical best practices and mandated requirements that pertain to information security.
- Research, test and document 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.

Please see www.uat.edu/nts for the latest information about degree program performance, placement and costs.

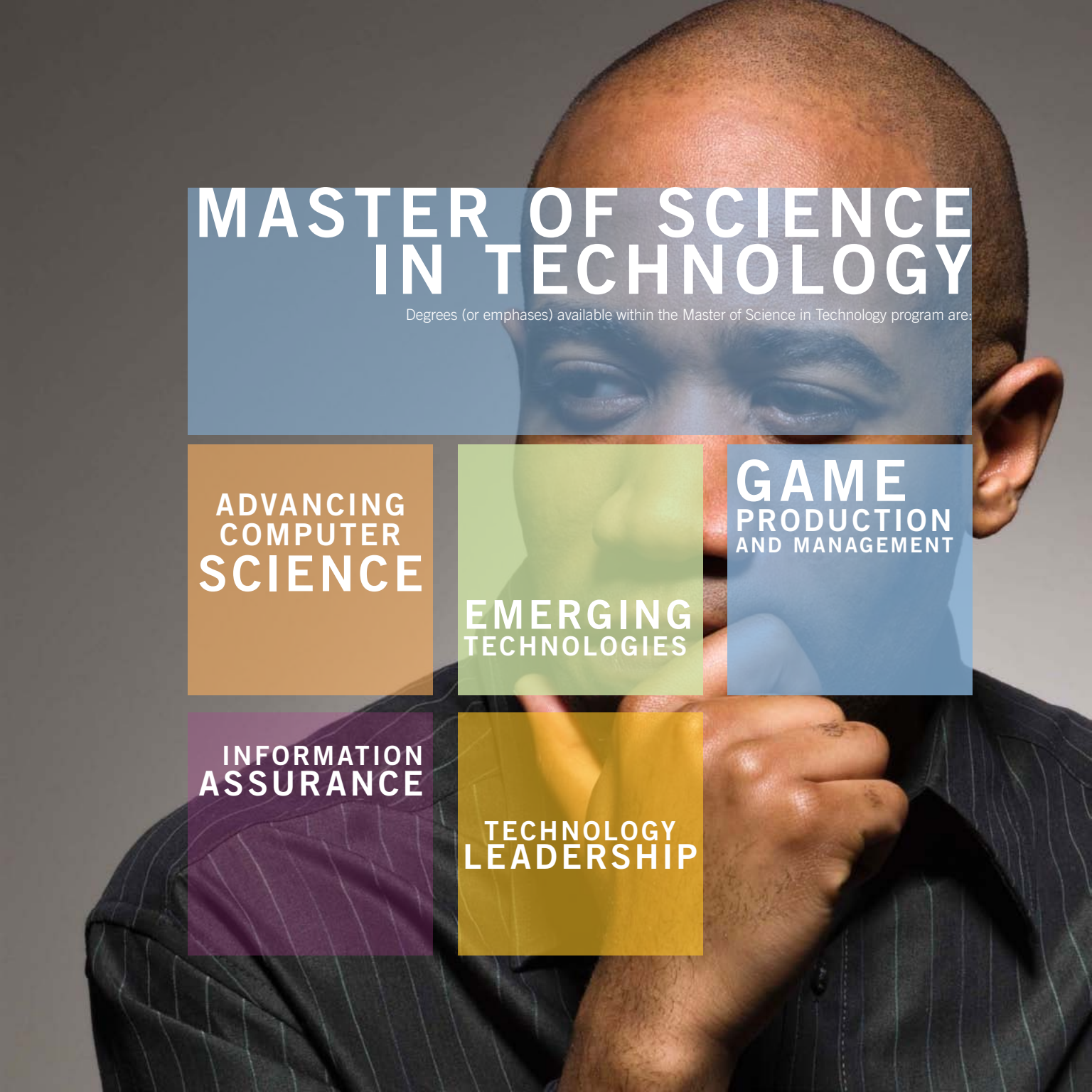
TECHNOLOGY FORENSICS

A technology forensics specialist is a role that will require the knowledge of systems and investigative techniques in order to impartially produce electronic evidence; develop attribution links; and counter advanced tactics, techniques, and protocols (TTP) of the adversary so that valuable data may be found in complex systems. 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. This may include studies in the areas of electronic discovery, deposition and litigation, or in corporate personnel processes. Above all, this program will focus on learning the highly technical and cutting-edge technologies affecting IT systems today and tomorrow. Students become prepared to anticipate new and emerging technologies so they can be successful within the rapidly evolving computer forensic environment and the increasingly complex threat landscape. Students synthesize and apply the vital skills and knowledge necessary to not only succeed in the workforce but to have a highly desirable and technical education setting them apart from traditional digital forensics programs. Instruction will lead students into hands-on and real-world situations, where they will gain invaluable experience working with actual systems, software, and networks. Further setting this program apart is the ability of students to work with the actual tools utilized by industry professionals and real-world malware in a controlled teaching environment.

TECHNOLOGY FORENSICS
OBJECTIVES

- Visualize, explore and communicate a network infrastructure design with a diagram and documentation that includes identified hardware components, connections to outside world, identified physical layer connectivity and addressing.
- Identify the various topologies, standards, technologies and protocols employed in computer systems, including file system formats and their attributes.
- Utilize procedures and techniques to evaluate, select, deploy and assess computer forensic measures to respond to and alleviate a security incident to prevent loss or corruption of sensitive information.
- Examine the current investigative and legal aspects of information and computer forensics including electronic discovery, deposition, litigation and corporate personnel processes.
- Inspect and execute the strategies, methodologies and state-of-the-art forensics tools and techniques for the recovery of data, digital evidence and documentation on computer systems, network systems and other devices.
- Create processes to follow the trail of digital evidence through an information system, including formal reporting and courtroom testimony.

Please see www.uat.edu/tf for the latest information about degree program performance, placement and costs.



MASTER OF SCIENCE IN TECHNOLOGY

Degrees (or emphases) available within the Master of Science in Technology program are:

ADVANCING COMPUTER SCIENCE

EMERGING TECHNOLOGIES

GAME PRODUCTION AND MANAGEMENT

INFORMATION ASSURANCE

TECHNOLOGY LEADERSHIP

MASTER OF SCIENCE IN TECHNOLOGY

PROGRAM CORE OBJECTIVES

> Research advancing technology topics.

> Develop the ability to forecast change in a technology-oriented environment.

> Utilize theoretical as well as applied knowledge.

> Compose and defend a master's thesis.

MASTER OF SCIENCE DEGREE REQUIREMENTS	
Program Core Credits	12
Minimum Program Degree-Specific Credits	24
Minimum Total Semester Credits	36

ADVANCING COMPUTER SCIENCE

Software development and computer science are moving in new directions, and in order to capture these movements, a modern day software developer needs to stay abreast of these changes. New algorithmic structures, code metaphors and programming languages are being developed to capture new architectures and paradigms in software development. Advancing computer science aims to capture the fluid movement of software development and to advance the field further through the development of cutting edge research and applications.

ADVANCING COMPUTER SCIENCE OBJECTIVES

- Assess and develop applications for new code architectures such as distributed computing and neural networks.
- Develop and test algorithms, strategies and methodologies to support model generation for computationally intelligent software components.
- Integrate new programming languages into application development, focusing on the strengths of these new languages over current languages and practices in software development.
- Develop within a Context Driven Architecture (CoDA) to build applications that provide what is needed to the user when it is needed.
- Analyze and develop within a new software development paradigm, such as, but not limited to, scrum, agile, or extreme programming, evaluating the advantages and disadvantages to traditional software development.

Please see www.uat.edu/gradacs for the latest information about degree program performance, placement and costs.

EMERGING TECHNOLOGIES

Emerging Technologies is a technology foresight, innovation and strategy (FIS) degree, focusing on identifying, envisioning, assessing and analyzing emerging technologies that may be beneficial, disruptive or of interest to real-world clients. Students gain exposure to emerging technologies in any of seven fundamental, rapidly accelerating, and converging technology clusters—Physical Sciences, Engineering and Nanotech; Energy, Sustainability and Greentech; Military, Security and Transparency; Information Technologies, AI and Robotics; Social, Economic and Political Technologies; Cognitive, Educational and Neuro-technologies; and Biotech, Medicine and Enhancement. Depending on course scheduling, students may study a particular cluster of interest in class or in credited independent study. Case studies in each cluster stress technology foresight, innovation, strategy and assessment interrelationships with other clusters, and social, economic and political issues relevant to strategy. Students gain research, critical thinking, analytical, presentation, project and teamwork skills in course deliverables. Graduates may work in technology FIS, consulting, management, assessment, military, security, policy, journalism, education, non-profit and other domains.

Students are encouraged to do an internship at a particular client prior to or during the thesis, which may be analytical or applied. The thesis will include research, data, forecasting, foresight and strategy in relation to an emerging technologies opportunity or threat for a hypothetical or actual client.

EMERGING TECHNOLOGIES
OBJECTIVES

- Gain literacy in six rapidly improving technology clusters currently broadly impacting 21st-century societies, and which may have even greater effects in the coming decade and beyond.
- Explore exponential trends, cycles of change, convergences, interrelationships, and first- and second-order uses and effects of these technologies on organizations and society.
- Understand ethical, social, economic, legal and political forces mediating the development and deployment of new technologies, and implications for organizational strategy.
- Learn to assess and analyze emerging technologies from the perspective of a range of real-world clients, including corporations, media, non-profits, education, government and the military.
- Gain basic business forecasting skills and be equipped to sit for an optional industry forecasting certificate exam upon graduation.
- Complete a thesis involving research, data, basic forecasting, foresight and strategy in relation to an emerging technologies opportunity or threat for a specific real-world client or industry.

Please see www.uat.edu/emerging-tech for the latest information about degree program performance, placement and costs.

GAME PRODUCTION AND MANAGEMENT

The Game Production and Management program offers students the opportunity to utilize skills to analyze and produce complete works in the electronic gaming arena. 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 serious based games.

GAME PRODUCTION AND MANAGEMENT
OBJECTIVES

- Lead a project team in implementing design, documentation, development, testing, Q/A and deployment.
- Develop analytical and management skills needed to successfully complete game projects.
- Analyze and critique the trends in game design and game technology and how they affect game projects.
- Develop all of the materials needed to bring a game project to market.
- Create an innovative work that adds to the field of game design and development.

Please see www.uat.edu/gameprod for the latest information about degree program performance, placement and costs.

INFORMATION ASSURANCE

The program is designed around the skills associated with coordinating security efforts related to information technology and many other fields relating to security initiatives and standards. Students will discover the importance of a comprehensive system-wide information security program to ensure that appropriate policies, standards and procedures designed to protect the security of information are documented and followed. The Information Assurance degree reflects the application of theory and an alignment with industry standards and guidelines.

INFORMATION ASSURANCE OBJECTIVES

- Appraise, implement and manage an organization's global security strategies and systems to mitigate risk, maintain continuity of operations and safeguard the organization.
- Develop, coordinate and manage all information security–related processes, practices and policies, including information technology, physical security, regulations, initiatives and standards consistent with a global business strategic plan to reduce risks, respond to incidents and limit exposure and liability in all areas of information, financial, physical, personal and reputation risk.
- Safeguard intellectual property, information and physical 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.
- Research and deploy technology solutions and security management techniques to safeguard an organization's intellectual and physical assets to ensure that all information systems are functional and secure.

Please see www.uat.edu/ia for the latest information about degree program performance, placement and costs.

TECHNOLOGY LEADERSHIP

Knowing how the changing technology infrastructure affects the strategic planning of an organization is a necessity in today's business world. Technology Leadership offers skills for the professional moving from development into management and administration. The program allows students to expand technical skills into the business realm, enabling them to manage projects and collaborate with teams, be entrepreneurial and understand legal issues associated with business and technology.

TECHNOLOGY LEADERSHIP OBJECTIVES

- Analyze and forecast future technology needs based on lifespan and adoption curves.
- Devise and prioritize timely and cost-effective definition, planning, execution and communication of deliverables in technology-rich environments.
- Appraise management of project budgets, ensuring proper use of financial resources.
- Communicate and work with cross-functional project stakeholders.
- Incorporate appropriate planning tools and team management processes.

Please see www.uat.edu/techleadership for the latest information about degree program performance, placement and costs.

ANALYTICAL AND APPLIED THESIS PROCESS

Upon completion of their program core and program electives, Master's candidates complete a thesis project. The thesis contains the candidate's review of prior research, and the candidate's own research, analysis and recommendations. It showcases the candidate's ability to analyze, synthesize and communicate. Master's candidates may complete either an analytical or an applied thesis project.

ANALYTICAL THESIS

> Analyze products, services and techniques with methodological and statistical tools

> Demonstrate an advanced level of proficiency in a select computer technology

> Complete an appropriately documented thesis of original research

The Analytical Thesis is a work of original research, presenting the student's analysis of existing or proposed technological developments.

APPLIED THESIS

> Apply cutting-edge techniques

> Demonstrate an advanced level of proficiency in a select computer technology

> Complete an appropriately documented thesis of original research

The Applied Thesis is essentially a creative endeavor, requiring not only analysis of an existing technology product or service, but also the conceptualization and execution of such improvements.

MASTER OF SCIENCE IN TECHNOLOGY

GRADUATION REQUIREMENTS

Students enrolled in this program will be graduated with a Master of Science in Technology degree when they have:

> Successfully completed the required core classes and met all core objectives

> Successfully completed the minimum number of required credit hours

> Achieved a cumulative GPA of at least 3.0/4.0

> Successfully defended their Thesis

> Completed the Application for Graduation

ONLINE

INFO

2625 W. Baseline Rd. > Tempe, Arizona 85283
Phone 800.658.5744 > Fax 602.383.8222

www.uat.edu
www.uat.edu/apply