

Florida Technical College

Addendum to 2021 Catalog

Printed September 15, 2021

FTC is not enrolling in any of the programs at the applicable campuses listed in this addendum at this time.

ANIMATION

The Bachelor's Degree in Animation provides students with a practical application to the animation process. This course will guide students through the primary principles and pipeline needed to start them on an entry-level career path. The students will learn and understand principles of movement, storytelling, acting, rigging, and performance using a variety of software.

Approved for Orlando campus.

120 Semester Credits

Core Courses (60 Credit Hours Required)

ANI 100 – History of Animation	3.0 Credits
ANI 150 – Visual Storytelling	3.0 Credits
ANI 175 – Acting for Animators	3.0 Credits
ANI 190 – Drawing for Animators I	3.0 Credits
ANI 250 – Introduction to 2D Animation	3.0 Credits
ANI 310 – Introduction to 3D Animation	3.0 Credits
ANI 330 – Rigging for 3D Animators	3.0 Credits
ANI 340 – Drawing for Animators II	3.0 Credits
ANI 342 – Previsualization	3.0 Credits
ANI 345 – Physical Animation	3.0 Credits
ANI 355 – Body Animation I	3.0 Credits
ANI 359 – Facial Animation	3.0 Credits
ANI 360 – Creature Animation I	3.0 Credits
ANI 370 – Character Animation I	3.0 Credits
ANI 450 – Body Animation II	3.0 Credits
ANI 460 – Creature Animation II	3.0 Credits
ANI 470 – Character Animation II	3.0 Credits
ANI 480 – Stylized Animation	3.0 Credits
ANI 490 – Student Animation Showcase	3.0 Credits
MOGA 405 – Career Development	3.0 Credits

General Education Courses (36 Credit Hours Required)

The required general education component must include at least one course from each of the following groups: Humanities, Mathematics and the Sciences, and Social Sciences.

Elective Courses (24 Credit Hours Required)

Course Descriptions

ANI 100 – History of Animation 3.0 Credits
The purpose of this course is to provide a historical look the evolution of animation from art form to industry. Students will learn from various perspectives from before the invention of film to present day. The course will explore the different tools and technology used in animation as well as the various

techniques used to produce animation.

ANI 150 – Visual Storytelling

3.0 Credits

The purpose of this course is to give students an understanding of how to construct and tell a story visually. The course will explore how the history of story and character has evolved into modern day storytelling and will introduce students to the art of visual storytelling and film language. Students will learn various techniques such as scriptwriting, storyboarding, and the art of the story pitch.

ANI 175 – Acting for Animators

3.0 Credits

The purpose of this course is to provide students with the basic acting theory that helps explain the differences between stage and film acting. The course demonstrates how to apply acting theory to animated characters or creatures. Students who complete this course will have a solid understanding of actor vs. animator, moving illustrations, acting principles, power centers and active listening.

ANI 190 – Drawing for Animators I

3.0 Credits

The purpose of this course is to give students a comprehensive understanding of basic observational drawing techniques and principles. This course will introduce students to the art of drawing through a digital medium using 2D drawing software. Students who complete this course will have a solid understanding core drawing concepts such as line, form, volume, shading and rendering, and perspective.

ANI 250 – Introduction to 2D Animation

3.0 Credits

The purpose of this course is to give students a comprehensive understanding of 2D animation fundamentals. This course will introduce students to the art and techniques of hand drawn animation through the use of a digital medium. Students who complete this course will have a solid understanding of timing and spacing, anticipation and overshoot, bounces and follow through, and squash and stretch.

Prerequisite: ANI 190

ANI 310 – Introduction to 3D Animation

3.0 Credits

The purpose of this course is to give students a comprehensive understanding of 3D animation fundamentals. This course will introduce students to 3D animation software and will focus on the principles of animation. Students who complete this course will have a solid understanding of primitive 3D modeling and rigging concepts, basic 3D animation workflow, and 3D motion graph editing.

ANI 330 – Rigging for 3D Animators

3.0 Credits

The purpose of this course is to provide students with a comprehensive understanding of the animation setup process. This course will introduce students to the fundamental concepts of rigging and how it pertains to the 3D animation process. Students who complete this course will have a solid understanding of rigging topics such as constraints and deformers, joints, skinning, and control systems, as well as animation topics such as space switching, animating constraints, and baking keyframes.

Prerequisite: ANI 310

ANI 340 – Drawing for Animators II

3.0 Credits

The purpose of this course is to build upon the concepts learned in Drawing for Animators I. This course will introduce students to art of drawing the human form. Students who complete this course will have a solid understanding of basic human anatomy and proportion, and capturing the spirit of a pose through gesture drawing.

Prerequisite: ANI 190

ANI 342 – Previsualization

3.0 Credits

The purpose of this course is to build upon concepts learned in Visual Storytelling and Intro to 3D Animation. The course will introduce students to digital video and audio editing techniques and will focus on the production process of a 3D animatic. Students who complete this course will have a solid understanding of 3D camera animation, character staging and scene setup, video editing and directing, and proxy animation.

Prerequisite: ANI 310 and ANI 150

ANI 345 – Physical Animation

3.0 Credits

The purpose of this course is to build upon the concepts learned in Intro to 3D Animation. This course will introduce the fundamental concepts of physics as it applies to animation. Students will explore basic fundamentals of mechanical and physics based animation techniques and will leave the course with a solid understanding of animating vehicles, machines, and physically motivated phenomena.

Prerequisite: ANI 310

ANI 355 – Body Animation I

3.0 Credits

The purpose of this course is to build upon the concepts learned in Intro to 3D Animation. This course will introduce students to the fundamental concepts of bipedal body animation, focusing on weight and balance, standing and sitting, and walk cycles. Students who complete this course will have a solid understanding of 3D animation workflow for basic bipedal locomotion.

Prerequisite: ANI 340

ANI 359 – Facial Animation

3.0 Credits

The purpose of this course is to build upon the concepts learned in the Body Animation II. This course will introduce students to the fundamental concepts of facial animation. Students who complete this course will have a solid understanding of emotions through facial expression, eye and mouth movement, and the mechanics of lip sync animation.

ANI 360 – Creature Animation I

3.0 Credits

The purpose of this course is to build upon the concepts learned in Body Animation I. This course will introduce students to concepts of quadruped body animation, focusing on walk cycles, running and galloping, and jumping. Students who complete this course will have a solid understanding of 3D animation workflow for basic quadruped locomotion.

ANI 370 – Character Animation I

3.0 Credits

The purpose of this course is to provide students with the basic understanding of 3D character animation

specific to body language. This course will build upon concepts learned in Acting for Animators and will allow students to explore avenues for emotive expression through body animation. Students who complete this course will have a solid understanding of body language and pantomime, as well as proper 3D animation workflow for basic character performance.

Prerequisite: ANI 340

ANI 450 – Body Animation II

3.0 Credits

The purpose of this course is to build upon the concepts learned in Body Animation I. This course will explore advanced concepts in biped body animation, focusing on lifting and pushing, running and jumping, starts and stops, and ragdoll animation. Students who complete this course will have a solid understanding of 3D animation workflow for advanced bipedal locomotion.

Prerequisite: ANI 355

ANI 460 – Creature Animation II

3.0 Credits

The purpose of this course is to build upon the concepts learned in Creature Animation I. This course will explore advanced concepts in creature locomotion and performance. Students who complete this course will have a solid understanding of creature and animal behavior, decision making and emoting.

Prerequisite: ANI 360

ANI 470 – Character Animation II

3.0 Credits

The purpose of this course is to provide students with the basic understanding of 3D character animation specific to facial performance. During the course students will explore avenues for emotive expression through facial animation with a goal of achieving an emotional response with their animation performance. Students who complete this course will have a solid understanding of emotive facial expressions, advanced lipsync concepts, and proper 3D animation workflow for facial performance.

Prerequisite: ANI 370

ANI 480 – Stylized Animation

3.0 Credits

The purpose of this course is to provide students with the basic understanding of 3D character animation specific to exaggerated animation often found in cartoons. Students who complete this course will have a better understanding of multiple limbs, smears, motion lines and staggers seamlessly into your animation.

ANI 490 – Student Animation Showcase

3.0 Credits

Students will apply their accumulated knowledge of animation to create an original animated short. The culmination of this knowledge will be a final animation project using 2D and/or 3D animation techniques. Students will explore various techniques, methodologies, and concepts to complete a professional animation project.

MOGA 405 –Career Development

3.0 Credits

The course will provide the framework for the career decision making process. It stresses the connection between the student's chosen academic field and career objective. Among techniques employed include resume writing, interview skill development and internet research.

BUILDING CONSTRUCTION TECHNOLOGY

The Building Construction Technology Diploma Program prepares its graduates with current technological knowledge and skills to gain entry-level employment in the construction technology discipline. The theoretical knowledge and hands-on experience this program offers will allow the graduate to be an active participant in the planning, development, and completion of a construction project.

Approved for South Miami, Deland, Kissimmee, Lakeland, Orlando, and Pembroke Pines campuses.

54 Quarter Credits

<u>Concentration Courses</u>	<u>Quarter Credits</u>
BCN 1214 Materials and Methods of Construction - Basic Structure	4.5
BCN 1215 Materials and Methods of Construction - Finishes and Systems	4.5
BCN 2721 Construction Scheduling and Planning	4.5
BCT 2770 Estimating Fundamentals	4.5
ETD 1320 Computer-Aided Design	4.5
EGN 1111 Engineering Graphics - Drawing	4.5
BCN 1765 Codes and Regulations	4.5
BCN 2599 Green Building and Energy Efficiency	4.5

Elective Courses (18 Credit Hours Required)

Course Descriptions

BCN1214 Materials and Methods of Construction - Basic Structure 4.5
This course will provide the skills necessary to understand how various materials and construction methods associated with site construction, concrete, masonry, metals and wood, and plastics affect the construction budget, and longevity and maintenance of a building. New materials and methods are introduced and to existing products and methods. The major focus will be emphasizing proper installation procedures and processes from a builder's perspective.

BCN1215 Materials and Methods of Construction - Finishes and Systems 4.5
This course will provide the skills necessary to examine how various materials and construction methods associated with the following construction areas: thermal and moisture protection; doors and windows, interior finishes; specialties and equipment; electrical; and mechanical. New industry products and procedures are compared and contrasted with existing materials and methods. The major focus is from a builder's perspective emphasizing proper installation procedures and processes.

BCN2721 Construction Scheduling and Planning 4.5
This course will provide the overall scope for construction project management (CPM) methods. Methods and procedures covered use current industry software, and may include Gantt charts, logic, diagrams, critical path method, and calendar day scheduling.

BCT2770 Estimating Fundamentals 4.5

This course teaches the basic principles and current practices employed in estimating construction building costs. Learners will prepare material lists; take off quantities of materials and labor hours from working drawings and specifications. Project cost estimates are created in the classroom and lab setting.

ETD1320 Computer-Aided Design 4.5

This course introduces the basic operations of the microcomputer, use of a microcomputer-based CAD program, layers, units, limits, line techniques, and geometric construction. Additional topics included are dimensioning, multi-view projections, sectional and auxiliary views, and entity properties. Lab included, using 3D modeling software (Revit).

EGN1111 Engineering Graphics – Drawing 4.5

This course is an introduction to the principles of mechanical drafting and manufacturing processes. Topics include dimensioning, tolerancing, mating parts for high-speed mechanical applications, assembly drawings, mechanical fasteners, shop practices, and mechanical drafting math will be covered and applied to assigned lab projects. Lab included.

BCN1765 Construction Codes and Regulations 4.5

This course will provide the foundation for Occupational Safety and Health Administration (OSHA) regulations and building codes. The focus is on Florida residential and commercial building standards, developing procedures, and the performance of sample checks on code compliance.

BCN2599 Green Building and Energy Efficiency 4.5

This course encompasses classroom and lab work study of the introduction to sustainability. Areas of study include sustainability, and the examination preparation for Leadership in Energy and Environmental Design (LEED) Certification.

BUSINESS - SALES AND MARKETING

The Associate of Science Degree in Business-Sales and Marketing qualifies the student with the required knowledge and the necessary basic skills to succeed in the modern business world of sales and marketing.

Approved for South Miami, Deland, Kissimmee, Lakeland, Orlando, Pembroke Pines, and Tampa campuses.

90 Quarter Credits

<u>Concentration Courses</u>	<u>Quarter Credits</u>
FTC1000 Success Strategies	4.5
FTC2200 Career Development Lecture	6.0
ENT2400 Entrepreneurial Economics and Marketing	4.5
MKT2010 Introduction to Marketing	4.5
BAD100 Introduction to Business	4.5
MAR1021 Principles of Selling	4.5
MAR1041 Introduction to Retailing	4.5
HFT1800 Introduction to Superior Guest Services	4.5
MAR1410 Sales Techniques	4.5
MKT2250 Marketing Research Lecture	6.0
MAR2162 Creating Selling for Customer Service	4.5
MAR2502 Consumer Behavior	4.5
MAR2511 Advertising and Sales Promotion	4.5
MAR2720 Marketing on the Internet	4.5

General Education Courses (24 Credit Hours Required)

Course Descriptions

FTC 1000 Success Strategies 4.5
This course provides success strategies and support services to entry-level students. The strategies and support services are threaded through three critical areas that enhance student success: academic skills, personal life management, and educational navigation.

FTC 2200 Career Development Lecture 6.0
The course provides the framework for the career decision-making process. It stresses the connection between the student's chosen academic field and career objective. Among techniques employed, include resume writing, interview skill development, and internet research.

ENT 2400 Entrepreneurial Economics and Marketing 4.5
This course will help students learn about best practices in Entrepreneurial Economics and Marketing. Entrepreneurs, in companies large and small, face unique challenges in successfully building competitive advantages with limited resources. This course covers the analysis of marketing opportunities, identification of the target audience, and the development a marketing strategy, brand positioning and an integrated

marketing plan. It reviews product and service development processes. It provides a basis for establishing pricing policies and pricing plans.

- MKT 2010 Introduction to Marketing 4.5
This course explores key marketing concepts and shows you how they apply to today's business practices. The course covers the essential knowledge and techniques managers need to compete successfully, whether in large companies or small businesses, profit-oriented firms or not-for-profit organizations. Topics include customer-oriented marketing strategies, buyers and markets, target market selection, and the marketing variables of products (and services), price, promotion, and distribution.
- BAD 100 Introduction to Business 4.5
Present the fundamentals of business organization and procedures to acquaint you with management principles, business terminology, types of business organizations, and their control.
- MAR 1021 Principles of Selling 4.5
This course provides a survey of the techniques utilized in the process of determining, activating, and satisfying the needs or wants of a buyer to the mutual continuous benefit of both the buyer and the seller.
- MAR 1041 Introduction to Retailing 4.5
This course provides a study of the principles, procedures, and techniques of retailing, buying pricing, merchandise, and determining consumer demand. Attention will be given to how and when to buy as well as sources of supply. The course ends by addressing the function and organization of major divisions in retail establishments.
- HFT 1800 Introduction to Superior Guest Services 4.5
This course provides students with the basic concepts and current trends in the customer service industry. Special areas of emphasis include problem-solving, development of a customer service strategy, creating customer service systems, coping with challenging customers, customer retention, and measuring satisfaction.
- MAR 1410 Sales Techniques 4.5
This course emphasizes the principles and practices of a professional salesperson. The course focus is on the information, skills, and activities necessary for success in today's marketplace.
- MKT 2250 Marketing Research Lecture 6.0
This course addresses the use of marketing research as an aid to making marketing decisions; specifically, how the information used to make marketing decisions is gathered and analyzed.
- MAR 2162 Creating Selling for Customer Service 4.5
This course provides a comprehensive review of effective techniques and procedures for selling customer services.
- MAR 2502 Consumer Behavior 4.5
This course is a study of buyer's information, acquisition, and evaluation, purchasing, and post-purchasing evaluation process. Emphasis is placed upon social and psychological theories and their implications on the understanding and prediction of consumer's behavior. The student will apply behavioral science concepts to the problems of planning, pricing, and promotional decisions.
- MAR 2511 Advertising and Sales Promotion 4.5

This course explores all phases of advertising including all electronic and print media; direct marketing, as well as sales promotion. Emphasis is on creation of the message, selection of media, and the planning, coordination, and evaluation of the marketing campaign.

MAR 2720 Marketing on the Internet

4.5

This course presents a study of the internet, its culture, and procedures from a marketing perspective. It also examines the application of marketing theories to internet business.

CRIMINAL JUSTICE

The Bachelor's Degree program in Criminal Justice is comprised of a combination of courses which provide skills in such areas as crime scene investigation, public administration, advanced application of homeland security and emergency management, and developing and establishing interagency relationships and private sector roles in homeland security. The program is designed to prepare a student for a career in law enforcement, public administration or homeland security.

Approved for South Miami, Kissimmee, Lakeland, Orlando, and Pembroke Pines campuses.

180 Quarter Credits

<u>Concentration Courses</u>		<u>Quarter Credits</u>
FTC1000	Success Strategies	4.5
FTC2200	Career Development Lecture	6.0
CAP1000	Introduction to Computer Operations	4.5
BIO121	Anatomy and Physiology for First Responders	4.5
CJT1100	Introduction to Criminal Justice Lecture/Lab	4.5
CJT1105	Criminal Law Lecture/Lab	4.5
CJT1110	Criminal Procedure Lecture/Lab	4.5
CJT1120	Law Enforcement Report Writing Lecture/Lab	4.5
CJT136	Crime Scene Investigations	4.5
CJT1150	Introduction to Corrections Lecture/Lab	4.5
CJT1155	Juvenile Justice Lecture/Lab	4.5
CJT1160	Criminal Justice Administration Lecture/Lab	4.5
CJT2235	Criminal Investigations Lecture/Lab	4.5
CJT250	Homeland Security	4.5
CJT300	Victimology	4.5
BAM305	Organizational Behavior	4.5
MAT306	Computer Assisted Statistics	4.5
CJT325	Licit and Illicit Drugs	4.5
CJT4400	The Laws of Evidence Lecture	6.0
CCJ2011	Introduction to Cyber Crime	4.5
<u>Concentration Track-Law Enforcement</u>		
CJT2215	Probation and Parole	4.5
CJT2200	Police and Society	4.5
CJT3100	Crisis Intervention	4.5
CJT2220	Advanced Law Enforcement Report Writing	4.5
CJT2600	Case Organization and Court Presentation	4.5
CJT1145	Criminology Lecture/Lab	4.5

Concentration Track-Administration

CJT2215	Probation and Parole	4.5
CJT220	Security Officer Leadership	4.5
ACG1100	Accounting I	4.5
HRM200	Human Resource Management	4.5
PBA201	Public Administration	4.5
CJT2300	Community and Human Relations	4.5
CJT2600	Case Organization and Presentation	

Concentration Track-Homeland Security

CJT2215	Probation and Parole	4.5
HLS415	Interagency Relationships	4.5
HLS420	Private Sector Role in Homeland Security	4.5
HLS430	Advanced Application of Homeland Security & Emergency Management	4.5
HLS440	Emergency Topics	4.5
HLS450	Intelligence Analysis	4.5
CJT206	Terrorism and Aviation Security	

Elective Course (6 Credit Hours Required)

General Education Courses (54 Credit Hours Required)

Course Descriptions

FTC 1000	Success Strategies	4.5
<p>This course provides success strategies and support services to entry-level students. The strategies and support services are threaded through three critical areas that enhance student success: academic skills, personal life management, and educational navigation.</p>		
FTC 2200	Career Development Lecture	6.0
<p>The course provides the framework for the career decision-making process. It stresses the connection between the student's chosen academic field and career objective. Among techniques employed, include resume writing, interview skill development, and internet research.</p>		
CAP 1000	Introduction to Computer Operations	4.5
<p>This course provides students a survey of computers and information processing and their roles in society. It will introduce a historical perspective of computing, hardware, software, information systems, and human resources and explores their integration and application in business and other segments of society. Students will be required to complete lab assignments using the PC's operating system, and several commonly used applications, such as word processors, Internet browsers and search engines, spreadsheets and graphics presentations applications.</p>		
BIO 121	Anatomy and Physiology for First Responders	4.5
<p>This course provides a comprehensive study of the anatomy and physiology of the human body. Topics include body organization; homeostasis; cytology; histology; and the integumentary, skeletal, muscular, nervous systems and special senses. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships. Laboratory work</p>		

includes dissection of preserved specimens, microscopic study, physiologic experiments, computer simulations, and multimedia presentations.

CJT 1100 Introduction to Criminal Justice Lecture/Lab 4.5

This course is to study the purpose, function and history of the agencies that make up the criminal justice system. A survey of criminal law, criminal procedures, law enforcement agencies, the criminal courts, and corrections (both institution and community based) will also be conducted in an effort to better understand the dynamics of the justice system.

CJT 1105 Criminal Law Lecture/Lab 4.5

This course is a generic study of criminal law in the United States, and does not cover any specific federal or state law. Topics include principles of criminal law, principles of criminal liability, complicity, inchoate crimes, defenses, justifications, excuses, crimes against persons, crimes against property, and crimes against public order.

CJT 1110 Criminal Procedure Lecture/Lab 4.5

This course is an in-depth analysis of criminal evidence rules in the United States. Topics include trial procedures, examination of witnesses, real/physical evidence, circumstantial evidence, hearsay evidence and exceptions, privileged communications, declarations against interests, and judicial notice.

CJT 1150 Introduction to Corrections Lecture/Lab 4.5

This course covers trends and developments in all elements of a modern correctional system for the treatment of juvenile and adult offenders.

CJT 1155 Juvenile Justice Lecture/Lab 4.5

The course is designed to provide a study of juvenile delinquency and control. The course involves an in-depth study of the organization, functions, and jurisdiction of juvenile agencies; the processing and detention of juveniles; juvenile care disposition and juvenile statutes and court procedures.

CJT 1160 Criminal Justice Administration Lecture/Lab 4.5

This course covers the administration of justice framed in those issues in the context of police, courts and corrections. Approaches courts use to manage their dockets and trials are reviewed. Challenges of the corrections segment of the system are analyzed. The impact of technology to bridge the segments of the system is explored. The challenges of the current and future criminal justice system are described and forecast.

CJT 2235 Criminal Investigations Lecture/Lab 4.5

This course teaches the fundamentals of criminal investigations from past to present and private investigators to government police forces. Students will learn the science of searching, evidence collection, interview techniques, interrogating, and modern scientific technology.

CJT 136 Crime Scene Investigation 4.5

This course is an in-depth examination of one of the three cornerstones of traditional policing, criminal investigation. Topics include physical evidence, information sources, interviews and interrogations, eyewitness identifications, crime scene reconstruction, homicide investigations, burglaries, robberies, sex crime investigations, specialized investigations, and managing criminal investigations.

CJT 250 Homeland Security 4.5

This is an introductory course in Homeland Security emphasizing the demands and needs of government and international agencies related to safety issues, terrorism, and laws related to homeland security. The course prepares individuals to pursue a career in Homeland Security and related agencies.

CJT 300	Victimology	4.5
<p>This course provides an introductory examination of criminal victimization in the United States via an overview of current theory, research, and trends within the context of specific victimization types. We will examine specific crimes types, the impact of crime on victims and society, the role of victims within the criminal justice system, specific remedies, and victim rights and services. We will engage in many of these topics within a context of current events and local models of crime victim services.</p>		
BAM 305	Organizational Behavior	4.5
<p>In this course, students will gain an understanding and appreciation of the systems approach as applied to human and organizational behavior. Students will gain an awareness and knowledge of contemporary issues and approaches to organizational change and development facing organizations.</p>		
MAT 306	Computerized Statistics	4.5
<p>This course is an introduction to statistics and the use of a professional statistical software package. Topics include: descriptive statistics; probability; binomial and normal distributions; sampling; confidence intervals and tests of hypotheses.</p>		
CJT 325	Licit and Illicit Drugs	4.5
<p>This course introduces the sociology of drugs and examines social definitions of licit and illicit drugs, conditions of their use, and socialization into drug use. Students consider deviant drug use and the effects of social control on definitions and use of drugs. The course applies the relevant sociological theories of deviance and social control.</p>		
CJT 4400	Laws of Evidence Lecture	6.0
<p>This course provides a thorough examination of the laws of evidence for criminal justice professionals. Topics include circumstantial and opinion evidence, hearsay, character evidence, relevancy and materiality, privileged communications, expert witness testimony, objections to and exclusion of evidence, and chain of custody.</p>		
CCJ 2011	Introduction to Cyber Crimes	4.5
<p>In this course, the student will analyze the fundamentals of cyber-crimes, the profile of a cyber-criminal, the methods and mechanisms used to commit cyber-crimes, as well as the classification of cyber-crimes. The student will discuss and evaluate the methods used to commit terrorism, identity theft, and organized crime. Distinguish between basic concepts of computer forensics and explain the process used to search for and seize computer evidence. Students will also learn about the use of social networking sites for criminal intent by sexual offenders and the use of law enforcement to solve these crimes and prosecute.</p>		
HOMELAND SECURITY ELECTIVES		
CJT 206	Terrorism and Aviation Security	4.5
<p>This course defines and reviews the history of terrorism from around the world and the United States. The material includes incidents that involve the use of violence to achieve political ends. Procedures, equipment and planning for adequate airport and aircraft security in the twenty first century are analyzed. The new Transportation Security Administration (TSA) regulations, corresponding clarifications, and historical perspectives are covered. The course analyzes the current status of aviation law pertaining to terrorism, air rage, search and seizure and impending changes. Background information on terrorist groups and efforts to combat them are supplemented by references to corresponding terrorist police and military units and weapons. The aspects of counterterrorism approaches developed in various countries are explored. The future challenges presented by terrorism are identified and examined.</p>		
HLS 415	Interagency Relationships	4.5

This class will teach students how to improve interagency relationships among security, defense, and intelligence agencies. This course introduces the student to theoretical and practical material for understanding the behavior of individual organizations and what can be done to make organizations work more closely together at the federal, state, and local levels. Students are introduced to theoretical material on organizational cultures; bureaucracy; social trust; individual, group, and organizational behavior; and interagency collaboration. Emphasis is placed on explaining why organizations act the way they do and how to improve interagency coordination.

HLS 420 Private Sector Role in Homeland Security 4.5

This course will provide the students with an overview of the concepts that will help them to understand the role of the private sector in Homeland Security.

HLS 430 Advanced Application of Homeland Security & Emergency Management 4.5

This course is designed to support the overarching goals of the Homeland Security Leadership program by providing an intellectual framework for engaging in ongoing self-directed learning within the Homeland Security domain; developing a cadre of leaders across the Homeland Security continuum who share substantive skills in analysis, interpretation, policy development, and administration of approved policy; and to complement other more operationally oriented training programs. During the course, students will examine and discuss several of the most important topical policy issues confronting Homeland Security leaders.

HLS 440 Emergency Topics 4.5

This course is a basic management course that could apply to all aspects of local and state governments, but concentrates on the law enforcement aspect. Topics include overall management techniques, coordination of rescue efforts, NIMS, and the Unified Command System. Related topics include mutual aid pacts, cooperative efforts with industry, manpower and resource management.

HLS 450 Intelligence Analysis 4.5

This course provides a survey of the field of intelligence. This course explores the history, function, principles, and methods of collecting intelligence. Emphasis is placed on the collection, analysis, interpretation, and use of intelligence. Central to the course is the use of intelligence in the United States regarding terrorism, organized crime and espionage (including economic espionage) investigations. Lastly, the course recognizes and explores the evolving intersection between intelligence, national security, and the criminal justice system.

LAW ENFORCEMENT ELECTIVES

CJT 140 Forensic Science 4.5

This course presents practical information to move the domain of the abstract into the real world of criminal investigation. The latest technologies available to crime laboratory personnel are revealed. Basic concepts of Internet use and the exploration of Web sites are related to the field. The procedures for the accurate collection of crime scene evidence are reviewed. The nature of physical evidence is defined.

CJT 1145 Criminology Lecture/Lab 4.5

This course covers the causes and patterns of criminal and deviant behavior, as well as possible applications of theory for treatment and prevention.

CJT 2215 Probation and Parole Lecture/Lab 4.5

This course presents an introduction and overview of the probation and parole system in the United States. The description of the system and the effective means of tracking former prisoners are explored. Topics

include entries and exits and each system, effective means of tracking, helping former prisoners, acclimate successfully to society. The structure of parole systems and probation are reviewed.

CJT 2200 Police and Society 4.5

This course examines the history and evolution of policing in the United States with an emphasis on the political, social, cultural, legal and organizational forces that have molded that history. Various roles and functions of police in America are examined in detail with an emphasis on community policing, and the current model in favor. The course also considers such factors as ethics, values, race, social class, and gender as crucial ones that impact police organizations. The course will examine the difficult issues of controlling police, police brutality and police corruption. Students will analyze the relationship between the police and the community and how it has changed over the years. The course focuses on analyzing theories and programs that establish a good working relationship between the police and the community.

CJT 3100 Crisis Intervention 4.5

This course is a study of the techniques used for effectively handling social and psychological crisis, family disputes, social disorders, hostage negotiations, and suicide attempts. Students will analyze case studies and conduct detailed analysis of actual situations requiring police intervention.

CJT 2220 Advanced Law Enforcement Report Writing 4.5

This course expands on the basic skills taught in the Law enforcement Report Writing Course. Topics will include use of proper grammar, organization, format, and content. There will be extensive writing and practical exercises conducted in this course.

ADMINISTRATION ELECTIVES

CJT 220 Security Officer Leadership 4.5

This course provides instruction in Security Leadership and Management. Students will also focus on the legal authority for a security officer and the security code of ethics. They will also learn fire and accident prevention, as well as public relations. Written and verbal communication skills are emphasized.

ACG1100 Accounting I Lecture/Lab 4.5

This course will provide students with the knowledge of analyzing, classifying, and recording business transactions in both manual and computerized environments. Emphasis is placed on understanding the complete accounting cycle and preparing financial statements, bank reconciliations, and payroll. Students will define accounting terminology; analyze and record business transactions in a manual and computerized environment; complete the accounting cycle, prepare financial statements; and apply accounting concepts related to cash and payroll.

HRM 200 Human Resource Management 4.5

This course serves as an introductory course in human resources management (HRM) with a particular emphasis on the disciplines used by business professionals. Using the Employee Life Cycle as a framework, the class will explore the historical evolution and philosophical foundations of the field as well as examine the current practices that are being used to support human resources in the workplace. Future HRM challenges will be examined and the emerging concept of strategic HRM will be highlighted.

PBA 201 Public Administration 4.5

This course is designed to allow students to develop an understanding of public administration as a field of academic study and an area of professional practice. Specifically, it focuses on the evolution of public administration as an academic discipline and a profession in the real world, the context in which public administration takes place, the meaning of public service in a democratic society, and the importance of personal and professional ethics. The course will be conducted as a seminar. Students must be prepared to discuss reading assignments and participate in analysis of case studies.

CJT 2300 Community and Human Relations

4.5

This course focuses on the relationship between police and the community with recommendations for ways of working together to reduce crime. Emphasis is placed on policing in a culturally-diverse society.

CJT 2600 Case Organization and Presentation

4.5

This course is designed to teach investigators and others how to organize complex and document intensive cases. The goal is to provide students with the ability to identify and select the case organizational tools best suited for their particular needs and to be skillful in successfully presenting their findings in an effective and professional manner.

DIGITAL MEDIA

The program objective of the Digital Media Associate of Science Degree is to prepare a graduate for an entry-level position in the business environment, with an emphasis on technology-based commerce and interfacing.

Approved for South Miami, Kissimmee, Orlando, and Pembroke Pines campuses.

90 Quarter Credits

<u>Concentration Courses</u>		<u>Quarter Credits</u>
FTC1000	Success Strategies	4.5
FTC2200	Career Development Lecture	6.0
AGD1010	Digital Imaging I	4.5
AGD1105	Theory and Elements of Design Lecture/Lab	4.5
AGD2010	Digital Imaging II	4.5
WGD1000	Web Graphics	4.5
WGD1010	Introduction to Web Design	4.5
WGD1030	Web Programing I	4.5
WGD2990	Portfolio Project for Digital Media	6.0
<u>Concentration Track-Web Development</u>		
WGD2040	Web Programing II	4.5
WGD2050	Implementing and Maintaining Websites	4.5
WGD2060	Electronic Publishing	4.5
WGD2070	Mobile Application	4.5
WGD2090	Social Media Marketing	4.5
<u>Concentration Track-Design</u>		
AGD1205	Typography	4.5
AGD2020	Applied Design	4.5
AGD2030	Digital Imaging III	4.5
WGD1020	Animation I	4.5
WGD2000	Animation II	4.5
<u>General Education Courses</u>		
HUM101	Humanities	4.5
HUM2020	Introduction to Art	4.5
MAT1010	Introduction to Algebra	4.5
PSY2000	Introduction to Psychology	4.5

Course Descriptions

FTC 1000	Success Strategies	4.5
<p>This course provides success strategies and support services to entry level students. The strategies and support services threaded through three critical areas that enhance student success: academic skills, personal life management, and educational navigation.</p>		
FTC 2200	Career Development Lecture	6.0
<p>The course will provide the framework for the career decision making process. It stresses the connection between the student's chosen academic field and career objective. Among techniques employed include resume writing, interview skill development and internet research.</p>		
AGD 1010	Digital Imaging I	4.5
<p>This course is an introduction to creation of graphic art for the web using pixel and vector editing software. Topics include the use of bitmapped painting tools, creative use of fonts, and use of layers in graphics layout. Lab included.</p>		
AGD 1105	Theory and Elements of Design Lecture/Lab	4.5
<p>This workshop introduces the elements and principles of Design as illustrated by art history and contemporary art as well as natural and man-made environments. This course focuses on color, line, texture, shape and space to achieve a working understanding of harmony proportion and cohesion.</p>		
AGD 2010	Digital Imaging II	4.5
<p>Digital Imaging II is a continuation of AGD1010. It covers the basics of optics, photography, lighting, photo enhancement and stylized text/font overlays associated with digital photography. Students are instructed how to use scanners as input devices to create digital images. Students discover effective picture taking techniques as they employ digital cameras. Emphasis is placed not only on photographing a subject, but also on creating effective photo backdrops, and use of diffuse lighting. Students employ a commercial product such as Photoshop®, Lover's Eye®, ArcSoft®, or similar software to retouch/airbrush their photos, create layers, add textures, text and apply special 3-D effects such as gradients, glows, drop shadows, highlights and vanishing points. Because the students will apply these concepts to Web pages, image compression and Web-safe color subjects are emphasized. Lab included.</p> <p>Prerequisite: AGD1010</p>		
WGD 1000	Web Graphics	4.5
<p>This course offers students a foundation with vector-based graphics. The concentration will be on design for web based graphics using a vector oriented software package. The student will be exposed to the use of spline curves, gradients, fills and layers to create vector based illustrations that are easily scalable from very large to very small. Lab included.</p>		
WGD 1010	Introduction to Web Design	4.5
<p>This course introduces the student to the basics of designing web pages using Hypertext Markup Language (HTML). It explores the essential elements involved in good web page design including content, navigation and incorporation of graphics. Focus is placed on what constitutes a pleasing and aesthetically-designed web site balanced between marketing and download constraints. Lab included.</p>		
WGD 1030	Web Programming I	4.5
<p>The course will focus on the design and development of web based applications using a number of currently popular tools and strategies; also to be explored is the use of databases as data repositories for web applications. Topics examined include HTTP, CGI, PHP, Java Servlets, Java Server Pages, Enterprise Java Beans, XML, database connectivity, scalability, security and other bleeding edge web technologies.</p>		
WGD 2990	Portfolio Project for Digital Media	6.0

The purpose of the Portfolio course is to help the student transition from design student to design professional and assist in their job seeking endeavors by having a complete and flexible portfolio in the appropriate formats for industry expectations and for various purposes. By the end of the course, the students will have converted portfolio projects to appropriate formats and taken steps necessary to make their work available for potential employers and client to easily access.

CONCENTRATION IN WEB DEVELOPMENT

WGD 2040 Web Programming II 4.5

This course is a continuation of Web Programming I. Students are taken further into Web-based programming and will explore more advanced languages and applications. Lab included.

Prerequisite: WGD 1030

WGD 2050 Implementing and Maintaining Web Sites 4.5

This course covers what the student will need to know in order to implement and maintain web sites. It describes the operation and functionality of a web server, the Internet, and how web pages are implemented on the Internet after design and creation. Lab included.

Prerequisites: WGD 1000

WGD 2060 Electronic Publishing 4.5

This course will introduce the student to building a large web project. Students will use a mixture of many media types including text, graphics, animation, and audio, with special emphasis on tying it all together in a coherent way using a web site builder. Lab included.

WGD 2070 Mobile Application 4.5

This course teaches students how to build mobile apps for Android, iOS, and Windows, the trinity that is today's mobile operating platforms. Students learn to write both web apps and native apps for Android using Eclipse and the Android SDK, to write native apps for iPhones, and to write web apps for both platforms.

WGD 2090 Social Media Marketing 4.5

This course teaches students how to build mobile apps for Android, iOS, and Windows, the trinity that is today's mobile operating platforms. Students learn to write both web apps and native apps for Android using Eclipse and the Android SDK, to write native apps for iPhones, and to write web apps for both platforms.

CONCENTRATION IN DESIGN

AGD 1205 Typography 4.5

This course provides an introduction to the study of the letterform as a keystone element of graphic design. It emphasizes how typography can be used as a communication device as well as a graphic and compositional element. Areas explored include using type effectively in a design, letterform anatomy, letterform analysis, measuring systems, and typographic identification.

AGD 2020 Applied Design 4.5

This course focuses on computer generated, three-dimensional graphics. The student will be instructed in the creation of 3D scenes and characters with sophisticated 3D rendering software. Lab included.

Prerequisite: AGD 2010

AGD 2030 Digital Imaging III 4.5

The goal of this course is to explore advanced techniques while stressing the design process. Students will explore and implement digital imaging theory and processes to enhance and retouch photographs and create new works of art.

Prerequisite: AGD 2020

WGD 1020 Animation I

4.5

This course examines graphic design fundamentals and terminology and introduces the student to 2D computer animation techniques. Students will be instructed in the theory and application of design elements such as storyboarding, frame-by frame animation and shape morphing. Lab included.

WGD 2000 Animation II

4.5

This course explores the use of computers to generate three dimensional graphics and animation. Students will be instructed how to create an object in 3D using a coordinate system, apply a surface and then animate the object. Lab included.

Prerequisite: WGD 1020

GAME PRODUCTION

The Game Production diploma program is designed to give each student practical exposure to complete each of the major disciplines needed for game art content creation. This includes games produced by both major game studios working on AAA titles and independent production houses working on mobile gaming and other applications. Students will learn the proper tools and techniques used by industry professionals.

Approved for the Orlando campus.

60 Semester Credits

Courses

DAVE110	Fundamentals of Asset Creation & 3D Design	15.0 Semester Credits/360 hours
DAVE210	3D Animation: The Art of Motion	15.0 Semester Credits/360 hours
GAME310	Game Asset Creation & Immersive Techniques	15.0 Semester Credits/360 hours
GAME405	Real-Time Technologies & Studio Production	15.0 Semester Credits/360 hours

Course Descriptions

DAVE110 Fundamentals of Asset Creation & 3D Design 15.0 Semester Credits
This course provides a comprehensive understanding of 3D modeling and digital sculpting techniques needed to construct objects for feature films and video games. Students will have a concrete knowledge of hard surface and organic modeling techniques, UV mapping, digital sculpting, model surfacing, mesh optimization, lighting, rendering and how to bring these assets into a real-time pipeline.

DAVE210 3D Animation: The Art of Motion 15.0 Semester Credits
This course provides a thorough understanding of computer animation. Students will have a solid understanding of camera and vehicle animation, parent/child hierarchies, character rigging, character animation, facial animation, lip syncing, and motion capture for film and gaming and how to bring these animations into a real-time pipeline.
Prerequisite: DAVE110

GAME310 Game Asset Creation & Immerse Techniques 15.0 Semester Credits
Interactivity is an art form and, in recent years, advanced quickly into rapidly becoming the industry standard. It requires a combination of art, technical and organization skills. In this course you will learn to make interactive game assets and work with them in a real-time rendering environment and pipeline.
Prerequisite: DAVE110, DAVE210

GAME405 Real-Time Technologies & Studio Production 15.0 Semester Credits
This course prepares the student for a career as a game artist. Students will be introduced to the world of advanced pipelines and production workflows, including creative problem solving, employer expectations and the importance of teamwork as you also prepare your portfolio.
Prerequisite: DAVE 110, DAVE 210, GAME310

HEATING, VENTILATION, AIR CONDITIONING, and REFRIGERATION

The Heating, Ventilation, Air Conditioning, and Refrigeration (HVAC/R) Diploma Program prepares students with the knowledge and necessary skills to develop efficient and safety-minded technicians that will be able to fill an entry level position in the heating, ventilation, and air conditioning field. In addition, they will acquire the necessary skills, to perform installation tasks, service and repairs in heating, refrigeration, and air conditioning equipment. This program is designed to prepare graduates to take the certifications from the Environmental Protection Agency (EPA) and Occupational Safety and Health Administration (OSHA).

Approved for the Deland, Kissimmee, Pembroke Pines, and South Miami campuses.

57 Quarter Credits / 48 Weeks

Concentration Courses

SKL1000	Safety and Craft Skills	6.0
HVA1300	Applied Math for HVAC Technicians	5.0
HVA1400	Introduction to Electricity (DC-AC)	5.0
HVA1500	Introduction to Refrigeration and A/C	5.0
HVA1600	Refrigeration and A/C: Residential	5.0
HVA1700	Refrigeration and A/C: Commercial	5.0
HVA1800	Heat Pumps and Related Systems	4.0
HVA2050	Electrical Instrumentation: Lab	4.0
HVA2060	Mechanical Instrumentation: Lab	4.0
HVA2075	Residential Equipment: Lab	4.0
HVA2080	Commercial A/C Equipment: Lab	4.0
HVA2500	Environmental Protection Agency (EPA) Laws and Regulations	6.0

Course Descriptions

Please reference the Course Descriptions section of the catalog.

LONG TERM CARE ADMINISTRATION

The Bachelor Degree in Long Term Care Administration prepares the student to sit for the Nursing Home Administrator Licensing Examination, under the Florida Board of Nursing Home Administrators, and begin entry-level administration positions such as a Life Care Community Administrator, Assisted Living Facility Administrator, or Nursing Home Administrator.

Approved for South Miami, Kissimmee, Lakeland, Orlando, and Pembroke Pines campuses.

210 Quarter Credits

Transfer Quarter Credits

Associate Degree in either Allied Health, Business, or an approved equivalent. 90.0

Concentration Courses

BUS 302	Principles of Management	4.5
HSA 3315	Health Information Systems Lecture/Lab	4.5
HSA 3320	Healthcare Human Resource Management Lecture/Lab	4.5
HSA 4405	Health Care Policy and Law	6.0
HSA 4410	Long-Term Managed Care Systems	4.5
HSA 4425	Health Care Quality, Management, Risk and Outcome Analysis	4.5
LTC 2000	Introduction to Gerontology	4.5
LTC 3601	Aging in America	4.5
LTC 3650	Social Aspects of Aging	4.5
LTC 4360	Gerontological Counseling	4.5
LTC 4400	The Reality of Alzheimer's Disease in Aging	4.5
LTC 4475	Program Evaluation in an Aging Society	4.5
LTC 4507	Death and Dying	4.5
LTC 4508	Issues in Long Term Health Care Operations	4.5
LTC 4509	Regulatory and Clinical Operations	4.5
LTC 4997	Administrative Internship I	21.0

General Education Courses (30 Credit Hours Required)

Course Descriptions

BUS 302 Principles of Management 4.5
This course introduces the student to the job of management in organizations. An understanding of the roles and tasks of all levels of management in the functions of organizational planning, controlling, staffing, leading and controlling is developed.
Pre-requisite: BAD 100

HSA 3315 Health Information Systems Lecture/Lab 4.5

Students receive an overview of current information systems including topics such as locating, collecting, analyzing, utilizing and reporting of health statistics to solve common workplace issues. Students will learn basic concepts of data quality and methods of presentation. Data systems issues as well as health indicators, metrics and measurements are covered to support informed decision making in a healthcare organization.

HSA 3320 Healthcare Human Resource Management Lecture/Lab 4.5

This course introduces contemporary healthcare human resource management issues within the U.S. Healthcare system. Contrasts the differences between personnel administration and elements of strategic human resource management. Students learn key concepts such as; line vs. staff relationships, the manager/employee relationship, job design, job analysis, position descriptions, recruitment, retention, promotion, succession planning, legal issues, safety issues, labor relations, training, compensation, benefits, and performance appraisals. Current trends in healthcare human resource management are covered.

HSA 4405 Healthcare Policy and Law 6.0

This course provides an overview of healthcare policy, regulation and law. Topics to include; sources of common, statutory, and constitutional law; contracts and intentional torts, the organization and management of a corporate healthcare organization (HCO); for-profit and nonprofit HCOs, liability issues for individuals and HCOs, admission and discharge issues, medical staff appointments and privileges, emergency care issues, consent issues for treatment, taxation and antitrust issues. Current issues in fraud, abuse and corporate compliance programs are also covered.

HSA 4410 Long-Term Managed Care Systems 4.5

This course provides an understanding of general principles of finance as it relates to health care organizations. Specific areas include an overview of sources of revenue for various health care entities, fundamentals of finance of health care organizations, interpretations of ratios using industry-wide comparisons, balance sheets, analysis and cost control measures, cash flow, income statements, and financial reporting. Issues surrounding budgeting dynamics that alter financial conditions are also examined.

HSA 4425 Healthcare Quality, Management, Risk and Outcome Analysis 4.5

This course introduces the student to the relationships between health care quality and organizational performance management. The student is introduced to the role of the governing body of the health care organization in ensuring compliance with the standards of regulatory and accreditation organizations. and the rationale for performance management and methods for assuring quality in process and outcome management are described, as well as the significance and statistical application of measuring outcomes. Identification of various healthcare stakeholders, provision and reimbursement of health care services are discussed. Prerequisites: None

LTC 2000 Introduction to Gerontology 4.5

This course is a comprehensive foundation of the life course of aging persons. An eclectic perspective provides a positive outlook on life and the aging process.

LTC 3601 Aging in America 4.5

This course provides a survey of pathological physical changes that occur from middle adulthood through older aged people. The emphasis is on age-related changes and their implications for relevant behaviors that occur throughout the life course.

LTC 3650 Social Aspects of Aging 4.5

This course introduces the student to the global context of societal aging. The text surveys aging in sociology from historical times through the modern era, including developing countries. Emphasis is on demographics, policy, and sociological and psychological data from around the world.

- LTC 4360 Gerontological Counseling 4.5
 This course provides a comprehensive study of the mental health issues of older people, including military, refugees, and various gender and identity clients. Topics discussed also include interviews, procedures (attending, listening, and action), counseling older adults, and their family members, in institutional settings.
- LTC 4400 The Reality of Alzheimer's Disease in Aging 4.5
 This course covers an in-depth look into Alzheimer's disease as both a physiological disease and a psychological disorder. The curriculum emphasizes on the caregiver's approaches for tending to persons with Alzheimer's disease and related disorders in residential and home care settings. Building and delivering a successful dementia program is also covered.
- LTC 4475 Program Evaluation in an Aging Society 4.5
 This course provides an overview of the evaluation research, and methods necessary to evaluate programs and institutions that service aging societies. Topics covered are management, human resources, finance, environment, and resident care. In addition, discussed are team dynamics, conflict resolution, and basic principles of nursing and social work. Also contextualized in this course are new technologies and patient data.
- LTC 4507 Death and Dying 4.5
 This course provides a study of death and dying, through both the personal and health professional aspects. The processes of loss, denial, grief, and anger will be examined throughout death and dying. Theoretical research combined with circumstantial application in an authentic manner to emulate the experience.
- LTC 4508 Issues in Long Term Healthcare Operations 4.5
 This course addresses case studies surrounding complex business and finance operational issues of a long-term care facility that an administrator will face.
- LTC 4509 Regulatory and Clinical Operations 4.5
 This course will apply management theory and concepts to the basic aspects of the nursing home administration role.
- LTC 4999 Administrative Internship 21.0
 This course is the capstone of the Long Term Care Administration program. The final 650-hour externship, with a Florida Board of Nursing Home Administrators approved preceptor, is a requirement to sit for the Nursing Home Administrator Licensing Examination. Prerequisite: All other coursework

MOTION GRAPHICS

The Bachelor's Degree in Motion Graphics will allow students to relay complete thoughts and messages to viewers through the combination of different media such as film, animation, and graphic design. The students can be able to create the opening credits for film, as well as animations based in web, and graphic bumpers for television networks. The students will learn and understand principles of composition, design, compositing, and animation using a variety of software.

Approved for the Orlando campus.

120 Semester Credits

Core Courses (60 Credit Hours Required)

MOGA 101 – Design Theory and Process	3.0 Credits
MOGA 102 – The Business of Motion Graphics Advertising	3.0 Credits
MOGA 103 – Digital Media Design and Production	3.0 Credits
MOGA 104 – Typography and Design	3.0 Credits
MOGA 105 – Color Theory and Design	3.0 Credits
MOGA 200 – Digital Photography	3.0 Credits
MOGA 202 – Motion Graphics Production I	3.0 Credits
MOGA 203 – Introduction to 3D Digital Modeling	3.0 Credits
MOGA 204 – Introduction to 3D Animation for Motion Graphics	3.0 Credits
MOGA 205 – Digital Illustration	3.0 Credits
MOGA 301 – Advanced Color Theory and Design	3.0 Credits
MOGA 302 – Advanced Typography and Design	3.0 Credits
MOGA 303 – Motion Graphics Production II	3.0 Credits
MOGA 304 – Motion Graphics Production III	3.0 Credits
MOGA 305 – User Experience Design	3.0 Credits
MOGA 400 – Dynamics and Visual Effects for Motion Graphics	3.0 Credits
MOGA 402 – Fundamentals of Business Management	3.0 Credits
MOGA 403 – Motion Graphics Business Start-ups	3.0 Credits
MOGA 404 – Final Project and Demo Reel	3.0 Credits
MOGA 405 – Career Development	3.0 Credits

General Education Courses (36 Credit Hours Required)

The required general education component must include at least one course from each of the following groups: Humanities, Mathematics and the Sciences, and Social Sciences.

Elective Courses (24 Credit Hours Required)

Course Descriptions

MOGA 101 – Design Theory and Process 3.0 Credits
This course provides an introduction to the visual arts through composition, design, art, basic color, and graphics through a study of diverse artistic styles. This course is important in the design field, where traditional styles of art are often blended with current imagery to create new and significant artistic genres.

MOGA 102 – The Business of Motion Graphics Advertising 3.0 Credits
This course provides an overview of multiple projects across the broad spectrum of motion graphics advertising, including concept development, production, project management, and content delivery.

Important workforce assets of individual drive and assessment, success within creative teams, management of timelines, deadlines, and budgets, and effective leadership are explored as they pertain to the motion graphics development pipeline.

MOGA 103 – Digital Media Design and Production 3.0 Credits

This course provides an introduction to the technology, vocabulary and process for preparing digital images for preparing digital mechanicals for offset print production. This includes a focus on preparing basic mechanicals for brochures, newspaper ads and other print formats. This course also includes an introduction to digital video production techniques including camera operation and procedures, basic principles and aesthetics of film and video editing, and principles and techniques of sound and digital video editing.

MOGA 104 – Typography and Design 3.0 Credits

This course provides an introduction to typography and its role in the visualization of language through an assortment of transmedia applications.

MOGA 105 – Color Theory and Design 3.0 Credits

This course enhances design skills through the development and understanding of color properties and relationships through formal exercises, research and creative thinking. Students will identify and analyze color and color phenomena while learning about color theorists and using color for a variety of fields and applications.

MOGA 200 – Digital Photography 3.0 Credits

Building upon skills already accomplished in earlier course work, students will advance their skills, aesthetic, and technique in digital image making. Professional artist's sample work will be viewed, analyzed, deconstructed, and discussed in terms of concept, message, technique, and approach. A variety of techniques for digital image-based art making will be demonstrated, explored, and practiced. Images will be combined with typographic and written messages. Image output for print, screen, and broadcast will be presented. Software training builds on previous knowledge to advance student's skills with a variety of industry-accepted Adobe design software.

MOGA 202 – Motion Graphics Production I 3.0 Credits

This course trains students in basic techniques of motion graphics creation through the use of software programs employed by design and animation studios. Students will explore the production pipeline and focus on design with an emphasis on problem-solving. Students will learn the requirements of a motion-graphics project by demonstrating the creation of designed assets and gain a thorough understanding of animation techniques, special effects, image compositing, and motion graphics. Students will composite video, digital images, motion graphics, vector and pixel graphics, titles, and kinetic typography into cohesive motion graphics pieces. Narrative and non-narrative form will be explored. Projects include: kinetic logo design, animated public service announcements, broadcast titling, and advertising spots. Students will assemble a demo reel of motion work.

MOGA 203 – Introduction to 3D Digital Modeling 3.0 Credits

This course is designed to explore techniques of 3D modeling. Students enhance modeling techniques, texture, lighting, and environmental effects to create one original portfolio-quality project. Further development of primitive objects, extrusions, nurbs, booleans, lofting, polygon modeling and revolving/lathing will be explored. This course includes training in industry-standard 3D design software.

MOGA 204 – Introduction to 3D Animation for Motion Graphics 3.0 Credits

By continuing to enhance knowledge of 3D modeling, rendering, and 3D animation skills, students will create an animated short film while working on advancing skills. The application and refinement of the 12 animation principles will be emphasized. This course will provide training in a variety of industry-standard 3D design software.

MOGA 205 – Digital Illustration 3.0 Credits
This course provides students the knowledge and skills to create illustrations to create concepts and themes that will be created for print and screen. Students will learn the process of illustrating a story from thumbnails to sketching, color and style studies, color comprehensives, to final illustrations.

MOGA 301 – Advanced Color Theory and Design 3.0 Credits
This course provides opportunities for students to enhance their skills using color theory. As students elevate their learning about sophisticated methods of color correction, image manipulation and printing, students will learn scanning techniques, digital camera usage, the mechanics of calibration, and other more advanced sets of controls. Utilizing a professional studio framework, students will artistically develop their own various projects.
Prerequisite: MOGA 105

MOGA 302 – Advanced Typography and Design 3.0 Credits
This course provides students opportunities to advance their knowledge of the use of typography to enhance definition in visual art and design and to communicate effectively and efficiently. The course will expand on topics such as: information hierarchy, meaning, reading order, and the language of kinetics.
Prerequisite: MOGA 104

MOGA 303 – Motion Graphics Production II 3.0 Credits
This course provides students with the advanced skills in Motion Graphics Production by using 3D animation, video compositing, pixel and vector graphics, and typography. Students will enhance their demo reel by using Adobe design software creating a professional piece of motion work.
Prerequisite: MOGA 202

MOGA 304 – Motion Graphics Production III 3.0 Credits
This course is designed for videographers, graphic artists, and animators with advance-level software experience. Students will learn how to incorporate text, graphics, and effects to their movies to master the menu and tools using software. Students will be using the menu and tools in the software to develop work with a high level of efficiency.
Prerequisite: MOGA 303

MOGA 305 – User Experience Design 3.0 Credits
This course expands on student's knowledge of interactive design learned in earlier course work, exploring interactive design from the perspective of user experience. Metaphors for graphic interfaces and icon design are studied through industry product examples, student practice exercises and projects. Organizing, scoping, planning, design, prototype models, and creating, working and aesthetic interactive experiences of complex informational content through rich multimedia experiences are covered. Software training builds on previous knowledge to advance student's skills with a variety of industry-standard design software.

MOGA 400 – Dynamics and Visual Effects for Motion Graphics 3.0 Credits
This course provides student's with the working knowledge of effects and animation presets included in Adobe After Effects software. Animation presets will be practiced, within both the Effects & Presets panel, and Adobe Bridge.

MOGA 402 – Fundamentals of Business Management 3.0 Credits
This course includes an introductory discussion in the following areas: the economic setting of business, the structure of business, business financing, management, ethical and social responsibilities of business, marketing and physical distribution of goods and services. The areas discussed in this course serve as the basic foundations for more specialized courses in business.

MOGA 403 – Motion Graphics Business Start-ups 3.0 Credits
This course introduces the key aspects of entrepreneurship including: the attributes of entrepreneurs, identifying and evaluating opportunities, writing a business plan and developing a business model, marketing for entrepreneurs, the elevator pitch, financing the venture, raising capital, and building a successful team. The course will be interactive in nature with lectures, group activities, and start-up problem solving scenarios, videos, and mini- presentations.

MOGA 404 – Final Project and Demo Reel 3.0 Credits
Animation Capstone Project 60 hours, 3 Credits. Students will apply their accumulated knowledge of animation and motion graphics to create an original animated short. The culmination of this knowledge will be a final animation project using 2D and/or 3D animation techniques. Students will explore various theories and techniques to complete a professional animation project.
Prerequisite: All concentration courses at the 100, 200, 300 level and MOGA 400, MOGA 402, and MOGA403

MOGA 405 – Career Development 3.0 Credits
The course will provide the framework for the career decision making process. It stresses the connection between the student’s chosen academic field and career objective. Among techniques employed include resume writing, interview skill development and internet research.

PLUMBING

This Plumbing Diploma program prepares the student the technical skills and practical knowledge, and skills to perform installation tasks, service and repairs in plumbing situations. Graduates from this program will be able to fill positions as a Plumbing Helper in residential and construction firms in the plumbing trade industry.

Approved for South Miami, Deland, Kissimmee, Lakeland, Orlando, and Pembroke Pines campuses.

748 Clock Hours

<u>Concentration Courses</u>		<u>Clock Hours</u>
IND101	Industrial Safety	64
SKL101	Introductory Craft Skills	64
PLU100	Plumbing Level 1	140
PLU200	Plumbing Level 2	180
PLU300	Plumbing Level 3	160
PLU400	Plumbing Level 4	140

Course Descriptions

IND101 Industrial Safety 64 Clock Hours
This course emphasizes the fundamental concepts related to safety and health in the industrial, manufacturing, and servicing industries. Prevention and remedial measures to face accidents caused by electric shocks, and toxic gases inhalations are discussed. Regulation of the Department of Labor and OSHA applicable to these industries is also covered.

SKL101 Introductory Craft Skills 64 Clock Hours
This course encompasses classroom and labwork study of introductory craft skills and safety. Areas of study include basic safety, construction math, hand and power tools, construction drawings, rigging, communication skills, employability skills, and material handling.

PLU100 Plumbing Level 1 140 Clock Hours
This course encompasses classroom and labwork study of the fundamental skills of plumbing. Areas of study include the core curriculum of the plumbing trade, its history, safety, tools, and techniques used in the modern plumbing craft, including: pipe cutting, pipe fitting, and plumbing fixtures.
Prerequisites: IND101 and SKL101

PLU200 Plumbing Level 2 180 Clock Hours
This course encompasses classroom and labwork study of the novice skill areas of the plumbing trade. Areas of study include plumbing mathematics, drawings and blueprints, building structure, and drains.
Prerequisite: PLU100

PLU300 Plumbing Level 3 160 Clock Hours

This course encompasses classroom and labwork study of the intermediate skill areas of the plumbing trade. Areas of study include applied plumbing mathematics, pipe and drain sizing, pumps, and waste.
Prerequisite: PLU200

PLU400 Plumbing Level 4 140 Clock Hours
This course encompasses classroom and labwork study of the advanced skill areas of the plumbing trade. Areas of study include the plumbing business, personnel management, water pressure, heating systems, building codes, and residential systems. Prerequisite: PLU300

PRODUCTION PROGRAMMING

The Bachelor's Degree in Production Programming is designed for students who want a specified range of skills in production programming. Students who complete this degree program will have a solid understanding of production programming development for Autodesk, Foundry and other industry standard software packages to develop apps and productivity tools utilized in the film industry and related fields, such as simulation.

Approved for the Orlando campus.

120 Semester Credits

Core Courses (33 Credit Hours Required)

PROG 111 – Introduction to Discrete Structures	3.0 Credits
PROG 121 – Introduction to Computer Programming	3.0 Credits
PROG 131 – Introduction to Database Management	3.0 Credits
PROG 211 – Computer Systems and Architecture	3.0 Credits
PROG 221 – Data Structures and Analysis	3.0 Credits
PROG 231 – Pipeline Development I	3.0 Credits
PROG 241 – Object-Oriented and Concurrent Programming	3.0 Credits
PROG 251 – Design and Analysis of Computer Algorithms	3.0 Credits
PROG 261 – Computer Graphics	3.0 Credits
PROG 271 – Current Trends and Projects in Computer Science	3.0 Credits
PROG 281 – Introduction to Probability/Statistics for Computer Scientists	3.0 Credits

Game Design Courses (27 Credit Hours Required)

GMDS 101 – Introduction to Game Design	3.0 Credits
GMDS 102 – Game Design Fundamentals	3.0 Credits
PRPG 301 – C# for Games	3.0 Credits
GMDS 201 – Visual and Audio Design	3.0 Credits
GMDS 202 – Storytelling for Games	3.0 Credits
GMDS 301 – Advanced Game Design Concepts	3.0 Credits
GMDS 302 – Usability and Human Computer Interaction	3.0 Credits
GMDS 401 – Level Design and Scripting	3.0 Credits
GMDS 402 – Game Design Evaluation and Testing	3.0 Credits

General Education Courses (36 Credit Hours Required)

The required general education component must include at least one course from each of the following groups: Humanities, Mathematics and the Sciences, and Social Sciences.

Elective Courses (24 Credit Hours Required)

Course Descriptions

PROG 111 – Introduction to Discrete Structures 3.0 Credits
This course is designed to instruct students in fundamental concepts of discrete mathematics.

PROG 121 – Introduction to Computer Programming 3.0 Credits
This course is designed to instruct students in the history, technology and use of computer science. Students will learn programming fundamentals by developing web pages using HTML and JavaScript.

PROG 131 – Introduction to Database Management	3.0 Credits
This course is designed to instruct students in database design and theory of methodologies.	
PROG 211 – Computer Systems and Architecture	3.0 Credits
This course is designed to instruct students in the perspective of the logic designer, the assembly language programmer, and the computer architect.	
PROG 221 – Data Structures and Analysis	3.0 Credits
This course is designed to instruct students in organizing, reorganizing, exploring, and retrieving data in digital computers, and the mathematical analysis of those techniques.	
Prerequisite: PROG 131	
PROG 231 – Pipeline Development I	3.0 Credits
This course is designed to instruct students in the basics of creating tools for users to help speed up production processes for pipeline development.	
Prerequisite: PROG 111, PROG 121, and PROG 131	
PROG 241 – Object-Oriented and Concurrent Programming	3.0 Credits
This course is designed to instruct students in the use and principles of object-oriented and concurrent programming.	
Prerequisite: PROG 121	
PROG 251 – Design and Analysis of Computer Algorithms	3.0 Credits
This course is designed to instruct students in the basic data structures and programming techniques often used in efficient algorithms.	
Prerequisite: PROG 111 and PROG 121	
PROG 261 – Computer Graphics	3.0 Credits
This course is designed to instruct students in the key concepts, algorithms, technologies, and applications used to design and make computer graphics.	
PROG 271 – Current Trends and Projects in Computer Science	3.0 Credits
This course is designed to instruct students by giving an overview of Computer Science and where it is headed in the future.	
PROG 281 – Introduction to Probability/Statistics for Computer Scientists	3.0 Credits
This course is designed to instruct students to understand more advanced topics such as random sequences, continuous-time random processes, and statistical signal processing.	
PRPG 301 – C# for Games	3.0 Credits
This course is designed to instruct students on how to write C# code that is simple, powerful, robust, secure, and maintainable.	
Prerequisite: PROG 111, PROG 121, PROG 211, PROG 221, and PROG 241	
GMDS 101 – Introduction to Game Design	3.0 Credits
This course acts as a starting point for students interested in learning about game design. It covers a wide variety of introductory topics, including the role of a game designer, the history of game design, genres, mechanics, features, rules, scope, documentation, usability, storytelling, and testing.	
GMDS 102 – Game Design Fundamentals	3.0 Credits

This course guides students through the process of designing games from conception to finished product and beyond. The development of a game design document is the primary focus of Game Design Fundamentals; and at the same time, students will explore and understand the various other documents that are necessary to designing exceptional games.

Prerequisite: GMDS 101

GMDS 201 – Visual and Audio Design 3.0 Credits

In this course, students are introduced to aspects of design that both drive and are influenced by the look and sound of a game. Basic visual elements (such as line, shape, and color) are covered, as well as art styles which are commonly found in games. Auditory elements (such as sound effects, music, and voice-overs) are covered as well.

Prerequisite: GMDS 102

GMDS 202 – Storytelling for Games 3.0 Credits

Students in this course gain mastery of the storytelling aspects of game design. Topics such as genre, theme, and foreshadowing - as well as storytelling tools like the Hero's Journey and archetypes - are explored as they relate to interactive entertainment. Students also work to develop specific narrative elements in game design - cut scenes, dialogue, scenery, and music, for instance.

Prerequisite: GMDS 201

GMDS 301 – Advanced Game Design Concepts 3.0 Credits

This course goes beyond the basics laid out in Game Design Fundamentals in order to impart upon the student a deeper mastery of the game design process. Topics such as game theory, subtractive design, and calm computing are introduced, as well as important design considerations such as localization and designing for cross-platform games.

Prerequisite: GMDS 202

GMDS 302 – Usability and Human Computer Interaction 3.0 Credits

This course explores the communication that occurs between a human being and an artificial system, within the context of game design. Students gain a solid grasp of the capabilities and limitations of human sensation and perception in order to design games that accommodate a wider range of players. Students will also learn and use Nielsen's Heuristics in order to design more usable games.

Prerequisite: GMDS 301

GMDS 401 – Level Design and Scripting 3.0 Credits

Using industry-standard tools, students in Level Design and Scripting will gain skill in translating written and visual descriptions of a game into actual environments, scenarios, and actions. Students will also explore the different kinds of game levels – how they vary in terms of starting and ending conditions, the critical path, and player perception of freedom.

Prerequisite: GMDS 302

GMDS 402 – Game Design Evaluation and Testing 3.0 Credits

In this course, students learn how to evaluate games through the process of testing. From focus testing to AB testing, students explore how feedback can be applied to influence the design of a game, in order to create more engaging, entertaining, and profitable products. Special emphasis is placed on the collection and analysis of analytic data using industry tools.

Prerequisite: GMDS 401

VISUAL EFFECTS PRODUCTION

The Visual Effects Production diploma program gives students a broad range of skills which allows them to pursue jobs in the computer graphics industry, including feature film and television effects, game art, print advertising, architectural visualization and military simulation.

Approved for Orlando campus.

60 Semester Credits

Courses

DAVE110	Fundamentals of Asset Creation & 3D Design	15.0 Semester Credits/360 hours
DAVE210	3D Animation: The Art of Motion	15.0 Semester Credits/360 hours
VFX310	Compositing & VFX: Principles of Integration	15.0 Semester Credits/360 hours
VFX405	Advanced VFX Pipelines & Studio Production	15.0 Semester Credits/360 hours

Course Descriptions

DAVE110 Fundamentals of Asset Creation & 3D Design 15.0 Semester Credits
This course provides a comprehensive understanding of 3D modeling and digital sculpting techniques needed to construct objects for feature films and video games. Students will have a concrete knowledge of hard surface and organic modeling techniques, UV mapping, digital sculpting, model surfacing, mesh optimization, lighting, rendering and how to bring these assets into a real-time pipeline.

DAVE210 3D Animation: The Art of Motion 15.0 Semester Credits
This course provides a thorough understanding of computer animation. Students will have a solid understanding of camera and vehicle animation, parent/child hierarchies, character rigging, character animation, facial animation, lip syncing, and motion capture for film and gaming and how to bring these animations into a real-time pipeline.
Prerequisite: DAVE110

VFX310 Compositing & VFX: Principles of Integration 15.0 Semester Credits
This course provides a solid understanding of visual effects production for film and television. Students will have an understanding of film effects history, node and layer based compositing, rotoscoping, green screen keying, color grading, 2D/3D tracking, crowd replication, matte painting, set extensions, particle simulations, fluid dynamics, stereoscopic conversion techniques, and the relationships to emerging technology pipelines.
Prerequisite: DAVE110, DAVE210

VFX405 Advanced VFX Pipelines & Studio Production 15.0 Semester Credits
This course provides a real-world experience of what it is like to work on a production and advanced, cutting edge, production pipelines. Students will gain an understanding of industry standard visual effects production techniques, 3D/VFX and advanced production pipelines, the importance of working as a team, how to apply problem solving skills to meet production deadlines while developing a portfolio.
Prerequisite: DAVE110, DAVE210, VFX310

The following FTC campuses are not enrolling in the following programs at this time. For more information about these programs and a list of campus(es) that are enrolling in these programs, please reference the catalog.

Campus(es)	Program	Credential
South Miami	Baking and Pastry	Diploma
Tampa	Electrical	Diploma
Tampa	Electrical with PLC	Diploma
Deland, Orlando, Pembroke Pines	Esthetics	Diploma
Lakeland, Orlando	HVAC/R with PLC	Diploma
South Miami	Information Technology Networking, Web Design and Programming	Bachelor's Degree
Tampa	Medical Assistant Technician	Diploma
South Miami, Deland, Lakeland, Pembroke Pines	Welding	Diploma
Pembroke Pines	LaSalle Advanced Security Professional (ISC2 CISSP) Exam Preparation	Diploma
Pembroke Pines	LaSalle Agile Project Management Exam Preparation	Diploma
Pembroke Pines	LaSalle Business Analyst Professional Exam Preparation	Diploma
Pembroke Pines	LaSalle Ethical Hacker (CEH) Exam Preparation	Diploma
Pembroke Pines	LaSalle Internet Marketing Strategies Exam Preparation	Diploma
Pembroke Pines	LaSalle ITIL Exam Preparation	Diploma
Pembroke Pines	LaSalle Linux Networking Exam Preparation	Diploma
Pembroke Pines	LaSalle Microsoft Programming/Web Development Exam Preparation	Diploma
Pembroke Pines	LaSalle Six Sigma Exam Preparation	Diploma