# Video Game Development and Design (VGDA/VDVA/VDEA) 

Associate in Science Degree
(For students entering their program
April 2019-201930 or later)

## General Description

The Video Game Development and Design program has two degree tracks: Game Development and Simulation Programming (VDVA) and Video Game Design (VDEA).

## Game Development and Simulation Programming

The associate degree program in Game Development and Simulation Programming (VDVA) will prepare students for entry-level careers in game programming, simulation programming, and software engineering. Graduates will be prepared for entry-level positions in a variety of digital, desktop production environments.

Through a combination of theoretical lessons, hands-on workplace-relevant laboratory experiences and small class sizes led by experienced instructors, the program emphasizes the application of lessons and knowledge to the design and development process of creating games and simulations.

As students prepare for the exciting fields of game development and simulation, they will learn how to design games, will be introduced to the game development process, will hone people skills and communications skills through team-based projects and presentations, will master coding languages such as C++, and will learn the use of industry-standard software packages. An important component of the curriculum is building a portfolio that will include the 2D games developed by students. Graduates from this program will be eligible for entry-level positions such as junior game designer, quality assurance engineer, and junior programmer. This program also prepares students to further their education in NEIT's bachelor's degree programs in Game Development and Simulation Programming or Business Management.

## Video Game Design

The associate degree program in Video Game Design (VDEA) will prepare students for entry-level careers in game design, animation and visualization as well as for entry-level positions in a variety of digital media production environments.

Through a combination of theoretical lessons, hands-on workplace-relevant laboratory experiences and small class sizes led by experienced instructors, the program emphasizes the application of lessons and knowledge to the design and development process of creating games and simulations.

As students prepare for the exciting fields of game design, they will learn how to design games, will be introduced to the game development process, will hone people skills and communications skills through team-based projects and presentations, will master 2D and 3D animation concepts, and will learn the use of industry-standard software packages. An important component of the curriculum is building a portfolio that will include game assets developed by students. Graduates from this program will be eligible for entry-level positions such as junior game designer, technical artist and level designer. This program also prepares students to further their education in NEIT's bachelor's degree programs in Video Game Design or Business Management.

## Program Mission, Goals and Outcomes

## Program Mission Game Development and Simulation Programming

The mission of the Game Development and Simulation Programming Associate Degree (VDVA) Program is to provide students with an introduction to a variety of careers in interactive media design and digital asset creation through the development of video games. This curriculum will provide opportunities for students to learn about design, digital assets, programming logic, and the creative process, as well as interdisciplinary collaboration and pipeline workflows. The program emphasizes the application of skills and knowledge to the design and development of games and simulations through a combination of theory, practical laboratory exercises, collaborative experiences, and a Game Studio project. All course outcomes are designed to prepare students for further education at the bachelor's level.

## Program Goals

The VDVA program will:

1. Provide the opportunities for students to learn the programming languages used for web, procedural, and basic object-oriented programming.
2. Provide the opportunities for students to learn design and project planning through storyboarding and documentation.
3. Provide the opportunities for students to learn the creation of 2D and 3D multimedia graphics animations and simulations.
4. Provide the opportunities for students to learn game design and publication including interactive gameplay, game balance, team development, and project management for several game genres.
5. Provide the opportunities for students to learn and understand the main components of a game engine and utilize popular commercial game engines.
6. Provide the opportunities for students to learn how to create and execute narrative, interpretive, interactive compositions and animations.
7. Provide the opportunities for students to instill in the student a sense of commitment to the computer-generated imagery (CGI) profession's core values and ethics.
8. Provide the opportunity for the student to understand the elements of a career as an independent contractor and freelancer.

## Program Outcomes

Students will:

1. Demonstrate introductory programming knowledge, skills and development processes using one or more programming languages.
2. Design, develop and document game programs, including the use of user needs analysis, flowcharting, pseudo-code, source code, and technical documents.
3. Develop 2D and/or 3D multimedia graphics animations and simulations.
4. Form a team, then using project management skills, design, develop and publish an interactive game in one or more genres.
5. Analyze and utilize industry standard game engine components.
6. Design and develop database driven structures and game applications.
7. Demonstrate professional oral and written communication skills, the ability to function as a member of a team, the ability to act ethically and responsibly, and respect for all people and cultures.
8. Demonstrate advanced programming knowledge, skills and development processes using several programming languages, and advanced techniques including object-oriented development.

## Program Mission, Goals and Outcomes

## Program Mission Video Game Design

The mission of the Video Game Design Associate Degree (VDEA) Program is to provide introductory preparation for students to become professional game designers working in the game industry and to prepare students for further education at the bachelor's level.

Through a combination of theoretical and hands-on state-of-the-art laboratory experiences, and small class sizes led by experienced instructors, the program emphasizes the application of knowledge to the design and development of games.

## Program Goals

The VDEA program will:

1. Provide opportunities for students to learn the programming languages used for web, procedural, and object-oriented programming.
2. Provide opportunities for students to learn broad communication skills through the use of fundamental design principles, project planning, and documentation.
3. Provide opportunities for students to learn about the tools and techniques used to create 2D and 3D digital assets.
4. Provide opportunities for students to learn the game design and development process from concept through publication.
5. Provide opportunities for students to learn about various game development tools and engines.

## Program Outcomes

Students will:

1. Demonstrate procedural, and basic object-oriented programming skills using a variety of programming languages.
2. Plan, schedule, manage, and execute projects through oral, visual and written communication.
3. Develop digital assets using various 2D and 3D media creation tools.
4. Demonstrate the development lifecycle from concept to publication through the development of quality software products and supporting materials.
5. Utilize industry standard game engines and tools to develop games and assets.

Game Development and Simulation Programming (VDVA) Curriculum

| Term I |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Course No. |  | Course Title | C | L | T |
| GDS | 111 | HTML and JavaScript | 2 | 4 | 4 |
| GDS | 114 | Introduction to Game Development | 2 | 2 | 3 |
| GDS | 115 | Digital Graphics for Gaming | 2 | 2 | 3 |
|  |  | CHOOSE ONE (depending upon Math |  |  |  |
| MA | 105 | Basic College Math with Lab (MA/SCI Core) | 4 | 2 | 5 |
| MA | 110 | Introduction to College Math (MA/SCI Core) | 4 | 0 | 4 |
| ELECTIVE |  | 100-200 Level Math/Science Core | 4 | 0 | 4 |
|  |  |  | 10 | 8/10 | 14/15 |


| Term II |  |  | $\boldsymbol{C}$ | $\boldsymbol{L}$ | $\boldsymbol{T}$ |
| :---: | :---: | :--- | :---: | :---: | :---: |
| Course No. | Course Title | 2 | 4 | 4 |  |
| GDS | 110 | Introduction to Game Programming | 2 | 4 | 4 |
| GDS | 125 | 2D Assets and Animation | 2 | 2 | 3 |
| GDS | 128 | Visual Communications for Game Designers | $\mathbf{4}$ | 0 | 4 |
| EN | 100 | Introduction to College Writing (COM Core) | $\mathbf{1 0}$ | $\mathbf{1 0}$ | $\mathbf{1 5}$ |


| Term III |  |  | C | $\boldsymbol{L}$ | $\boldsymbol{T}$ |
| :---: | :---: | :--- | :---: | :---: | :---: |
| Course No. | Course Title | 2 | 4 | 4 |  |
| GDS | 121 | Intermediate Game Programming | 2 | 4 | 4 |
| GDS | 137 | Game Prototyping | 2 | 4 | 4 |
| VGD | 133 | 3D Modeling I Social Sciences Core | 4 | 0 | 4 |
| ELECTIVE | 100-200 Level Socianications (COM Core) | $\mathbf{4}$ | 0 | 4 |  |
| EN | 200 | Workplace Commung | $\mathbf{1 4}$ | $\mathbf{1 2}$ | $\mathbf{2 0}$ |


| Term IV |  |  | C | $\boldsymbol{L}$ | T |
| :---: | :---: | :--- | :---: | :---: | :---: |
| Course No. | Course Title | 2 | 4 | 4 |  |
| GDS | 131 | Advanced Game Programming | 2 | 2 | 3 |
| VGD | 243 | Introduction to Level Design: MOD | 2 | 4 | 4 |
| VGD | 244 | Unity I | 4 | 0 | 4 |
| MA | 125 | Technical Math I | 4 | 0 | 4 |
| ELECTIVE | 100-200 Level Humanities (or Arts/Foreign Language Core) | 14 | 10 | 19 |  |


| Term V |  |  | Course Title | $\boldsymbol{L}$ | $\boldsymbol{T}$ |
| :---: | :--- | :--- | :---: | :---: | :---: |
| Course No. | Cores | 2 | 4 | 4 |  |
| GDS | 241 | API Programming | 2 | 4 | 4 |
| GDS | 252 | Algorithms and Data Structures | 2 | 4 | 4 |
| VGD | 256 | Unity II | 4 | 0 | 4 |
| PHY | 200 | Physics I \& Lab (MA/SCI Core) | 10 | 12 | 16 |


| Term VI |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Course No. |  | Course Title | C | L | $T$ |
| GDS | 134 | Game Persistence | 2 | 2 | 3 |
| GDS | 259 | Games and Big Data | 4 | 0 | 4 |
| GDS | 267 | Portfolio Development | 0 | 2 | 1 |
| GDS | 268 | Game Studio | 0 | 6 | 3 |
| MA | 210 | Technical Math II | 4 | 0 | 4 |
|  |  |  | 10 | 10 | 15 |

Total Quarter Credit Hours = 99/100

## Legend

$C=$ Number of lecture hours per week
L = Number of laboratory hours per week
T = Total Quarter Hours where each lecture hour per week is one credit, every 2-4 laboratory hours are one credit depending on the expected amount of pre- or post-lab work.

PLEASE NOTE: All liberal arts core courses are listed in italics.
All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of MA 105/110 must still take 32 credits of core courses.

Subject to change.

## Video Game Design (VDEA) Curriculum

| Term I |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Course No. |  | Course Title | C | L | $T$ |
| GDS | 111 | HTML and JavaScript | 2 | 4 | 4 |
| GDS | 114 | Introduction to Game Development | 2 | 2 | 3 |
| GDS | 115 | Digital Graphics for Gaming | 2 | 2 | 3 |
|  |  | CHOOSE ONE (depending upon Math |  |  |  |
| MA | 105 | Basic College Math with Lab (MA/SCI Core) | 4 | 2 | 5 |
| MA | 110 | Introduction to College Math (MA/SCI Core) | 4 | 0 | 4 |
| ELECTIVE |  | 100-200 Level Math/Science Core | 4 | 0 | 4 |
|  |  |  | 10 | 8/10 | 14/15 |


| Term II |  |  | $\mathbf{C}$ | $\boldsymbol{L}$ | $\boldsymbol{T}$ |
| :---: | :---: | :--- | :---: | :---: | :---: |
| Course No. | Course Title | 2 | 4 | 4 |  |
| GDS | 110 | Introduction to Game Programming | 2 | 4 | 4 |
| GDS | 125 | 2D Assets and Animation | 2 | 2 | 3 |
| GDS | 128 | Visual Communications for Game Designers | $\mathbf{4}$ | 0 | 4 |
| EN | 100 | Introduction to College Writing (COM Core) | $\mathbf{1 0}$ | $\mathbf{1 0}$ | $\mathbf{1 5}$ |


| Term III |  |  |  | $\boldsymbol{C}$ | $\boldsymbol{L}$ |
| :---: | :---: | :--- | :---: | :---: | :---: |
| Course No. | Course Title | $\boldsymbol{T}$ |  |  |  |
| GDS | 121 | Intermediate Game Programming | 2 | 4 | 4 |
| GDS | 137 | Game Prototyping | 2 | 4 | 4 |
| VGD | 133 | 3D Modeling I | 2 | 4 | 4 |
| ELECTIVE | 100-200 Level Social Sciences Core | 4 | 0 | 4 |  |
| EN | 200 | Workplace Communications (COM Core) | $\mathbf{4}$ | 0 | 4 |
|  |  | $\mathbf{1 4}$ | $\mathbf{1 2}$ | $\mathbf{2 0}$ |  |


| Term IV |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Course No. |  | Course Title | C | L | $T$ |
| VGD | 242 | 3D Modeling II | 2 | 4 | 4 |
| VGD | 243 | Introduction to Level Design: MOD | 2 | 2 | 3 |
| VGD | 244 | Unity I | 2 | 4 | 4 |
| MA | 200 | Applied Math for Business | 4 | 0 | 4 |
| ELECTIVE |  | 100-200 Level Humanities (or Arts/Foreign Language) Core | 4 | 0 | 4 |
|  |  |  | 14 | 10 | 19 |


| Term V |  | Course Title | $\boldsymbol{L}$ | $\boldsymbol{T}$ |  |
| :---: | :---: | :--- | :---: | :---: | :---: |
| Course No. | CII | 2 | 4 | 4 |  |
| VGD | 253 | 3D Modeling III | 2 | 4 | 4 |
| VGD | 256 | Unity II | 2 | 2 | 3 |
| VGD | 259 | Storyboard and Design | 4 | 0 | 4 |
| ELECTIVE | 100-200 Level Social Sciences Core | 10 | 10 | 15 |  |


| Term VI |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Course No. |  | Course Title | C | $L$ | T |
| GDS | 267 | Portfolio Development | 0 | 2 | 1 |
| GDS | 268 | Game Studio | 0 | 6 | 3 |
| VGD | 263 | Digital Audio and Video Editing | 2 | 4 | 4 |
| VGD | 268 | UI/UX Design Principles | 2 | 2 | 3 |
| ELECTIVE |  | 100-200 Level Humanities (or Arts/Foreign Language) Core | 4 | 0 | 4 |
|  |  |  | 8 | 14 | 15 |

## Legend

$C=$ Number of lecture hours per week
L = Number of laboratory hours per week
T = Total Quarter Credit Hours where each lecture hour per week is one credit, every 2-4 laboratory hours are one credit depending on the expected amount of pre- or post-lab work.

PLEASE NOTE: All liberal arts core courses are listed in italics.
All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of MA $105 / 110$ must still take 32 credits of core courses.

Subject to change.

## Video Game Development and Design (VGDA/VDVA/VDEA)

Associate in Science Degree

## Liberal Arts Core Electives

All programs must meet certain minimum requirements in both the major and in the liberal arts. Course requirements for each program are listed in each curriculum along with liberal arts selections. Courses listed as "Core Electives" in a curriculum can be chosen by students from one of the several core areas listed below. Each core area provides a variety of courses for student choice. Students must take a minimum of 32 credits in core electives for the associate degree and an additional minimum of 28 credits for the bachelor's degree. Individual majors have specific requirements and may require more than the minimum number of liberal arts credits or may specify certain courses in a particular core area. All liberal arts core elective courses are 4 credits. Please refer to the curriculum of the major for specific requirements.

## Associate Degree Core Elective Areas ${ }^{1}$

To obtain a minimum of 8 courses ( 32 credits), students may choose from the following course selections:

2 courses (minimum) from the Communications Core
2 courses (minimum) from the Math/Science Core
1-2 courses from the Humanities Core OR
1 course from the Humanities Core AND/OR
1 course from the Arts/Foreign Language Core
1-2 courses from the Social Sciences Core

## Associate Degree Courses by Core ${ }^{1}$

Communications Core Electives (Minimum 8 Credits)
EN 100 Introduction to College Writing
EN 106 Service Industry Communications
EN 110 Healthcare Communications
EN 200 Workplace Communications
EN 211 Oral Communications
HU 208 Rap/Rock and Poetry
Math/Science Core Electives (Minimum 8 Credits)
CHM 101 Life Science Chemistry
MA 100/110 Introduction to College Math
MA 105 Basic College Math with Lab
MA 109 Math for Life Science
MA 121 Business Math
MA 125 Technical Math I
MA 200 Applied Math for Business
MA 210 Technical Math II
PHY 126 Applied Physics \& Lab
PHY 200 Physics I and Lab
SCI 110 Environmental Science
Arts/Foreign Language Core Electives (Maximum of 4 Credits in Place of a Humanities Course)
AR 203 Introduction to Drawing
AR 206 3D Sculpture: An Adventure in the Third Dimension
AR 207 Introduction to Applied Music
AR 209 The Art of Collage
JP 201 Introduction to Japanese
SP 201 Introduction to Spanish
SP 203 Spanish for Healthcare Workers

## Humanities Core Electives (Minimum 4 Credits)

HU 208 Rap/Rock and Poetry
HU 211 Introduction to Film
HU 212 Documentary Film
HU 215 Popular Culture
HU 216 Music and the Media
HU 240 Graphic Design in the $20^{\text {th }}$ Century
HU 242 The Automobile and American Culture
HU 244 Science Fiction
HU 289 Racing Through Film
HU 291 Critical Thinking and Chess

## Social Sciences Core Electives (Minimum 4 Credits)

BU 236 Small Business and the Law
EC 203 Principles of Economics
HI 231 Contemporary History
HI 235 Architectural History
HI 280 The Holocaust
PS 140 Life-Span Development
PS 201 Introduction to Psychology
PS 202 Psychology of Healthcare
PS 203 Psychology of Happiness
PS 210 Human Relations in the Workplace
SO 203 Social Problems
SO 220 Internet and Society
SO 231 Crime and Deviance
SS 140 Criminal Investigations
SS 201 American Government in Action
SS 203 Terrorism \& National Security
SS 204 Juvenile Justice System in America
SS 206 Constitutional Values in the $21^{\text {st }}$ Century
SS 221 Technology and American Life
SS 222 Mindful Living

[^0]
## Degree Progress Checklist Game Development and Simulation Programming (VDVA) Track

Check off each completed course.
Program Requirements

| T1 | GDS | 111 | - |
| :--- | :--- | :--- | :--- |
|  | GDS | 114 | - |
|  | GDS | 115 | - |


| T2 | GDS | 110 | - |
| :--- | :--- | :--- | :--- |
|  | GDS | 125 | - |
|  | GDS | 128 | - |


| T3 | GDS | 121 | - |
| :--- | :--- | :--- | :--- |
|  | GDS | 137 | - |
|  | VGD | 133 | - |


| T4 | GDS | 131 | - |
| :--- | :--- | :--- | :--- |
|  | VGD | 243 | - |
|  | VGD | 244 | - |

\#7

| Humanities Core |  |  |  |
| :---: | :---: | :---: | :---: |
| 100-200 level HU elective |  |  |  |
|  |  |  |  |
| Social Sciences Core |  |  |  |
| $100-200$ level SS elective |  |  |  |

## Subject to change.

Please see your advisor for any questions.

Students are advised to take courses in the order and in the term in which they appear on this checklist. Any deviation may result in an extended time required to complete your degree as well as additional tuition and fees. Please contact your Student Advisor prior to making any changes to the course sequence.

## Degree Progress Checklist <br> Video Game Design (VDEA) Track

Check off each completed course.
Program Requirements

| T1 | GDS | 111 | - |
| :--- | :--- | :--- | :--- |
|  | GDS | 114 | - |
|  | GDS | 115 | - |
| T2 | GDS | 110 | - |
|  | GDS | 125 | - |
|  | GDS | 128 | - |

\#1
\#2


| T3 | GDS | 121 | - |
| :--- | :--- | :--- | :--- |
|  | GDS | 137 | - |
|  | VGD | 133 | - |


| T4 | VGD | 242 | - |
| :--- | :--- | :--- | :--- |
|  | VGD | 243 | - |
|  | VGD | 244 | - |

\#6

| T5 | VGD | 253 | - |
| :---: | :---: | :---: | :---: |
|  | VGD | 256 | - |
|  | VGD | 259 | - |

\#7
\#8

| T6 | GDS | 267 | - |
| :---: | :---: | :---: | :---: |
|  | GDS | 268 | - |
|  | VGD | 263 | - |
|  | VGD | 268 | - |

## Liberal Arts Core Requirements

8 Required Courses
Each course $=4$ credits (total of 32 credits)

| Communications Core |  |  |
| :--- | :---: | :--- |
| EN 100 | T2 | - |
| EN 200 | T3 | - |


| Math/Science Core |  |
| :---: | :---: |
| MA 105 or 110* | T1 |
| MA 200 | T4 |
| OR |  |
| If you placed into MA 200 take: 100-200 level MA/SCI elective | T1 |
| MA 200 | T4 |

*If you placed into MA 044, take MA 105 instead of MA 110.

| Humanities Core* |  |  |  |
| :--- | :---: | :--- | :---: |
| 100-200 level HU elective | T4 | - |  |
| $100-200$ level HU elective | T6 | - |  |

*You may use one Arts/Foreign Language Core Elective to fulfill your Humanities Core.

| Social Sciences Core |  |  |
| :--- | :---: | :--- |
| $100-200$ level SS elective | T3 | - |
| $100-200$ level SS elective | T5 | - |

## Subject to change.

Please see your advisor for any questions.
Students are advised to take courses in the order and in the term in which they appear on this checklist. Any deviation may result in an extended time required to complete your degree as well as additional tuition and fees. Please contact your Student Advisor prior to making any changes to the course sequence.

## Course Descriptions

## GDS 110 Introduction to Game Programming

2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
C++ will be used as the vehicle to introduce flowcharting, control structures, calculations, interactive programming techniques, functions, and array processing. Students will learn to write programs that implement techniques and theory necessary for basic game development. Laboratory projects will grow in complexity as students gain hands-on experience. Both personal and gaming applications will be provided.

## GDS 111 HTML and JavaScript

2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
In this course, students will gain an introduction to Internet technologies and basic programming logic through the study of HTML 5, XHTML, Cascading Style Sheets, and JavaScript. File organization and implementation of web graphics will be stressed throughout this course.

## GDS 114 Introduction to Game Development

2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
This course is an overview of the game development industry. Students will learn what is involved in developing a professional game from start to finish. Topics include the game development life cycle, developing a budget and game specification documents. Students will also be exposed to important physics, math and artificial intelligence concepts relevant to game development.

## GDS 115 Digital Graphics for Gaming

2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Students will develop a working knowledge of how 2D images are manipulated on the desktop, using Adobe Photoshop. Topics consist of image creation, retouching, color correction, and compositing images together to form a final design. Emphasis is placed on the use of Photoshop as it pertains to creating and editing 2D images used in games.

## GDS 121 Intermediate Game Programming

2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: GDS 110
A study of intermediate game programming using C++ will be covered. Topics include string handling, intermediate array processing, passing by reference, pointers, and an introduction to creating, editing, and updating data files.

## GDS 125 2D Assets and Animation

2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: GMW 112 or GDS 115
This course is an introduction to game development using Adobe Animate CC. Students will learn the principles of two-dimensional timeline-based animation and vector graphics creation.

## GDS 128 Visual Communications for Game Designers

2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: GDS 115
Visual communication is often more effective than written or spoken communication. Like other forms of communicating, visual communication has its own set of rules, slang and conventions. The goal of this course is to teach students about the fundamentals of effectively organizing and communicating ideas through graphics. Among the topics addressed in this course are the logical organization of information, presentation skills, and the importance of understanding cultural and historical aesthetics.

## GDS 131 Advanced Game Programming

2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: GDS 121
A study of advanced game programming topics will be covered. Topics include sorting/searching arrays and data files, classes/objects, code libraries, and advanced pointer techniques. This course will also teach students object-oriented principles and implementations including inheritance, composition, encapsulation, data hiding, overloading, overriding, and polymorphism.

## GDS 134 Game Persistence

2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: GDS 121
This course will expose students to database design principles such as relational databases, normalization and entity relationship diagrams. These principles will be applied to contemporary database management systems such as MySQL or Access and accessed through a modern object-oriented language such as C++. Students will learn to connect a C++ program to a database to store pertinent game information.

## GDS 137 Game Prototyping

2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisites: GDS 110, GDS 125
In Game Prototyping, students will study the rapid development of 2D game mechanics using paper prototypes, the HTML5 Canvas Element and JavaScript. This course is focused on learning game programming logic through experimentation. Throughout the course, students will be presented with the logic for common game mechanics. They will use this information to develop the basic logic for new or more advanced game mechanics and features. Finally, students will be asked to refactor prototypes into refined, efficient and readable code snippets.

## GDS 241 API Programming

2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: GDS 131
This course will teach students to create a game program using an industry standard graphics API. Using C++ and a graphics library such as DirectX or OpenGL students will learn the fundamentals of 2D programming. Topics include scrolling, sprites and collision detection and incorporating sound effects.

## GDS 252 Algorithms and Data Structures

2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: GDS 131
This course includes an overview of the algorithms and data structures used in gaming and simulation applications today. Topics include, but are not limited to, linked lists, queues, stacks, user input as well as a variety of AI techniques used in game development.

## GDS 259 Games and Big Data

4 Class Hours 4 Quarter Credit Hours
Prerequisite: GDS 131
A study of the Python programming language will be used as the vehicle to introduce advanced programming concepts such as data modelling, prediction, and statistical analysis. At the end of the course, students should be able to analyze data and develop routines that will calculate and render a dataset's mean, standard deviation, and data distribution curve. This course will help turn big data into valuable insights effectively through learning data analytics and data mining concepts. Students will learn the theory, strategy, and the practice of using a machine learning tool such as Python.

## GDS 267 Portfolio Development

2 Lab Hours 1 Quarter Credit Hour
Prerequisites: GDS 111, GDS 137
Students will put together a portfolio that will be used to demonstrate their school work to potential employers.

## GDS 268 Game Studio

6 Lab Hours 3 Quarter Credit Hours
Prerequisites: (GDS 241 and GDS 252) or (GDS 137, VGD 253, VGD 256, VGD 259)
This course is designed to challenge students' organizational, design and programming skills. Students will be part of a small development team of designer and programmers and tasked with producing the code and materials assets necessary to complete a full game product.

## VGD 133 3D Modeling I

2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: GMW 112 or GDS 115
This course will cover the language of and the fundamentals of creating low polygon three-dimensional assets for video games. It will start with modeling basics: primitives and sub-object modeling using box, spline and polygon modeling techniques. The course will then progress to model unwrapping and mapping, creating custom textures for meshes and model optimization for export to 3D game engines. Students will also learn the fundamentals of rendering and animation in a 3D modeling program.

## VGD 242 3D Modeling II

2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: VGD 133
This course will build on the fundamentals learned in Modeling I (VGD 133) providing the opportunity to learn more refined and advanced techniques in 3D modeling, rendering and animation. Topics covered along with advanced modeling techniques include advanced tools, materials, lighting, and levels of detail.

## VGD 243 Introduction to Level Design: MOD

## 2 Class Hours 2 Lab Hours 3 Quarter Credit Hours

Prerequisite: GDS 114
In this course, students will learn and employ the fundamentals of game level design. Using the iterative process of development, students will MOD (modify) an existing game environment, with assets and programming wizards, enabling rapid prototyping of a new game. Level Design fundamentals taught through selected readings, videos and critiques will be employed by students to improve their game in each succeeding iteration of development. This course will also include the examination of a game's gameplay, its agents and spatial components which is necessary for the development of a design method that will lead to ultimate level design.

## VGD 244 Unity I

2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
This course will provide a foundation in the tools, techniques, and production methods for creating game environments and successfully using Unity 3D in production situations.

## VGD 253 3D Modeling III

2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: VGD 242
The emphasis of this course is the design and rigging of low-polygon 3D characters for video games. The course's emphasis will be on character rigging for animation utilizing standard bones and advanced custom rigs. Rigging fundamentals will include forward and inverse kinematics, vertex weighting through
envelopes, vertex assignment and mesh weighting. Finished models with rigs will be ready for creating animations and implementation into game engines.

## VGD 256 Unity II

2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisites: GDS 137, VGD 244
This course will expand the use of the Unity 3D tool in a production. Students will use JavaScript, C\#, to enhance interactivity and gameplay, while also deploying characters, objects, sounds and textures required for the development of a basic 3D game.

## VGD 259 Storyboard and Design

2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: GDS 128
This course introduces students to the concepts and techniques of visual storytelling through storyboard creation. Students will execute storyboards ranging from simple sequence events to cinematic scenes. The course also covers storyboard pitching and presentation techniques. Students will also learn basic principles of design, composition and layout.

## VGD 263 Digital Audio and Video Editing

2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
This course addresses the importance and need in today's fast-paced digital world, to create an effective demo reel of work. The goal of this course is to teach not only the technical skills required to produce a demo reel, but to also help students in evaluating their work and how to put their best foot forward. Examples of successful demo reels from large design and gaming firms to independent artists and producers will be shown and used to illustrate key points of what makes certain demo reels stand out from the others. Learning diverse concepts from transitioning and pacing to determining the correct audio to be used, will all factor into creating a successful demo reel. Students will come away from this course with an outstanding showcase of their work that can be delivered over multiple platforms on the Internet including YouTube and Vimeo.

## VGD 268 UI/UX Design Principles

2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisites: GDS 115, VGD 259
Students will work in teams to create a good user experience through the development of physical and virtual user interfaces for a video game. Students will document the process of developing conceptual materials, functional specifications and visual assets.

## Liberal Arts Associate Degree Courses

## Art (Arts/Foreign Language Core)

## AR 203 Introduction to Drawing

## 4 Class Hours 4 Quarter Credit Hours

This course introduces students to key concepts and techniques integral to developing basic drawing skills. Class time will be spent discussing, demonstrating and practicing these skills in order to produce a comprehensive body of work specific to the course objectives. Course performance will be evaluated on effort and growth as opposed to artistic talent.

## AR 206 3D Sculpture: An Adventure in the Third Dimension

## 4 Class Hours 4 Quarter Credit Hours

This course will teach students to think, see and function in 3 -dimensional space. They will explore the differences and similarities between 2 -dimensional and 3 -dimensional representation in composition and design. Students will use a broad range of materials to create sculptures that will help them explore different aspects of 3 -dimensional functioning. Class time will be spent in a combination of sculpture design and a discussion of slides of work reflecting the history of three-dimensional works of art from Greek times to the present. No prior experience with art courses is required.

## AR 207 Introduction to Applied Music

## 4 Class Hours 4 Quarter Credit Hours

This course will afford students the opportunity to experience a "hands-on" approach to piano keyboard and composition. Each section of the course will focus on one musical concept through listening, playing and finally application. Because of the computer-assisted nature of the program, all levels of musical and keyboard comprehension can be accommodated, and the course can be geared to the individual interests and needs of each student in the class.

## AR 209 The Art of Collage

4 Class Hours 4 Quarter Credit Hours
Powerful imagery is a combination of technical skill and imagination. Students will exercise their ability to manipulate composition and color as well as cultivate the power of imagination in this studio class with a focus on collage, a technique where compositions are crafted by adhering various materials to a backing surface. Creativity and the development of ideas will be explored while acquiring a working knowledge of the elements and principles of art. The assemblage process of collage will be the design tool used to investigate, generate and express ideas. Students will research collage as an art form and examine the creative processes of various artistic disciplines. No prior experience is necessary. Students will be evaluated on their effort and creative growth as opposed to artistic talent.

## Business (Social Sciences Core)

## BU 236 Small Business and the Law

4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 100
This course is designed for those students who intend to start and operate their own small business. This course will focus on the various elements associated with the start-up, acquisition and operation of a small business from the entrepreneurial point of view. Topics to be covered will include business formation, contract negotiations and drafting, financing, employee discrimination issues, customer relations issues, licensing, permits and tax basics. Additionally, students will be asked to complete a legal research assignment and prepare and present a business plan in their particular technological field of study.

## Chemistry (Math/Science Core)

CHM 101 Life Science Chemistry
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: MA 100/110 or MA 105 or MA 109
This course provides an introduction to inorganic chemistry and organic chemistry with a focus on Life Science applications as reflected in the selection of the text. Topics include measurement, units of concentration, the nature of atoms, states of matter, periodicity, bonding, stoichiometry, chemical reactions, thermodynamics and kinetics.

## Community Enrichment

CE 101 Community Enrichment
1 Class Hour 1 Quarter Credit Hour
This online course is offered through the Feinstein Enriching America Program. Weekly assignments include topics such as B Corporations, civic and social responsibility, and Non-Governmental Organizations. A 15 -hour community enrichment project is also required. Community engagement six months prior to taking the course may be accepted with proper documentation. Current or prior military service and concurrent clinical experiences are accepted in lieu of the community enrichment project. After successful completion of the course, students are eligible to apply for a Feinstein Scholarship, which is awarded each term.

## Economics (Social Sciences Core)

## EC 203 Principles of Economics

4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 100
Introduces the fundamental principles of microeconomics and macroeconomics, such as scarcity, supply and demand, growth, fiscal and monetary policies, and the public and the private sectors.

## English (Communications Core)

## EN 100 Introduction to College Writing

## 4 Class Hours 4 Quarter Credit Hours

Placement: Based on an evaluation of a writing sample or successful completion of EN 030.
EN 100 is an introductory writing course designed to immerse students in the writing process and sharpen their critical thinking skills. In this course, students will practice using writing as a tool for learning by responding to readings, composing essays, and reflecting on the writing process itself. Through drafting, revising, and writing to learn, students will strengthen their ability to interpret, analyze, and evaluate the ideas presented in the course readings, lectures, and discussions. Conducting, evaluating, and integrating research (through summarization, quotations, and paraphrasing) is a major component of this course. Additionally, students will be introduced to APA citation style, and will improve essential writing skills such as grammar, punctuation, and standard usage.

## EN 106 Service Industry Communications

## 5 Class Hours 5 Quarter Credit Hours

In today's competitive service industry technicians must possess a mastery of both technical and nontechnical skills. EN 106 will introduce and equip students with the nontechnical or "soft skills" needed to succeed and advance in their field. Topics will include written and verbal communication, professionalism, team collaboration, critical thinking, and problem-solving skills. Because learning to write and communicate effectively requires practice, the course provides numerous opportunities; including writing workshops, role play, and group activities, for students to apply the fundamentals of written and oral communication.

## EN 110 Healthcare Communications <br> 4 Class Hours 4 Quarter Credit Hours <br> Prerequisite: EN 100

EN 110 builds off the foundation established in EN 100 and focuses on the necessity of clear written and oral communication in the allied health arena. Through role play, small group work, and presentations students will develop the communication and critical thinking skills they will need daily when communicating with other health care providers, clients, and their families. Additionally, by continuing in the writing process (researching, drafting, and revising) students will further their ability to write clear, concise, error free prose with attention given to audience and message.

## EN 200 Workplace Communications

## 4 Class Hours 4 Quarter Credit Hours

Prerequisite: EN 100 or EN 110 or placement based on evaluation of a writing sample.
EN 200 builds off the foundation established in EN 100 and focuses on the necessity of clear written and oral communication in professional settings. Students will be exposed to a variety of business writing genres including memos, emails, business letters, and proposals. By continuing their engagement in the writing process (researching, drafting, and revising), students will compose several professional documents, reinforcing students' attention to audience and their aptitude to develop an effective workplace document. Additionally, this course strengthens students' ability to document in APA citation style, and hone essential writing skills such as grammar, punctuation, and standard usage.

## EN 211 Oral Communications

4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 100 or EN 110 or placement
This is an introductory course with an emphasis on oral communication theory and practice, providing a basic understanding of the significance of oral communication as well as instruction and practice in the basic skills of public speaking. The course is intended to help students develop skills in speaking, organizing thoughts, and critical analysis. Major emphasis is placed on the preparation and presentation of formal speeches.

## History (Social Sciences Core)

## HI 231 Contemporary History

4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 100
This course encourages students to explore economic, political, social and cultural developments throughout the world since World War II, particularly in developing nations including spiritual, scientific and intellectual developments.

## HI 235 Architectural History

4 Class Hours 4 Quarter Credit Hours
This course is a study of the major periods and styles of architecture from Egyptian through postmodern. Styles studied will include Egyptian, Greek, Roman, early Christian, Byzantine, Romanesque, Gothic, Renaissance, Baroque, 18th, 19th and 20th century. Through a series of lectures, discussions, and readings, students will gain a fundamental understanding of the history of architecture including the historical and social context of each period respectively.

## HI 280 The Holocaust

4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 100
In this course, students will study genocide and mass murder in modern history. The focus of this course is the Jewish Holocaust of 1933-1945. Through film, photographs, and readings, the course will provide
students with a basic understanding of the establishment of the Nazi Party and its attitudes, beliefs, and laws that were put into action during this time period. Students will compare the Holocaust to current genocidal acts in the world today, including the effects of genocide on society.

## Humanities (Humanities Core)

## HU 208 Rap/Rock and Poetry

## 4 Class Hours 4 Quarter Credit Hours

Core Fulfillment: Both Communications Core and Humanities Core
Prerequisite: EN 100
What do Eminem, Tupac, Bob Marley, Bob Dylan and WB Yeats have in common? All five wordsmiths are poets who use rhyme, rhythm, figurative language and poetic structure to craft language. In this course, students will explore poetic devices and important global themes through examination of poetry, written by Nobel Prize and Grammy Award winning writers. Focusing on aspects of poetic form will build students' understanding of and appreciation for the power of language.

## HU 211 Introduction to Film

## 4 Class Hours 4 Quarter Credit Hours

Prerequisite: EN 100
The focus of the course will be on what goes into the reading and analysis of a film. Film is comprised of several arts - and the objective of this course is to learn to appreciate films and to see them as important social documents that tell us much about ourselves and our world.

## HU 212 Documentary Film

## 4 Class Hours 4 Quarter Credit Hours

Prerequisite: EN 100
This course will expose students to the techniques and artistry of making interesting non-fiction films. Students will view and analyze significant documentary films and become familiar with the work of important filmmakers.

## HU 215 Popular Culture

4 Class Hours 4 Quarter Credit Hours
This course will analyze cultural expressions of intellectual and social trends since 1950. Students will investigate literature, comics, movies, television, music, advertising, painting, computer games, and the Internet to probe the forces that shape our world. In this course, students will identify and evaluate the popular entertainment we consume and ask how our choices define us and shape our values.
Understanding our values and culture enables us to understand why we buy what we buy, why we do what we do, and why we think the way we do.

## HU 216 Music and the Media

4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 100
This course will trace the long relationship between visual media and music. Students will study the movie industry from silent movies to the sound tracks that are an integral part of the movies of today. They will also study the importance of music in television, radio and the recording industry, particularly its role in commercials and the "selling" of products, people and programming. In addition, a substantial portion of the course will be devoted to the technology that has led to today's sophisticated performances and recording techniques.

## HU 240 Graphic Design in the 20th Century

4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 100
Throughout history, artists and designers have created visual works that help to define historical eras. In this course, students will examine and analyze the most prominent design styles of the past one hundred years. They will learn the defining features and major proponents of each style as well as how each style fits within its historical context. They will then use the knowledge gained to produce designs that respond to past styles in an engaged, knowledgeable way. Course performance will be evaluated on student effort and growth as opposed to artistic talent.

## HU 242 The Automobile and American Culture

4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 100
Undeniably, the automobile has had an enormous impact on American culture. A majority of Americans rely on individual transportation daily, but the car is more than a means of heading to work. Automobiles impact our personal independence, our choice of employment, the country and world economies, the environment, and our social culture. The Automobile and American Culture is a course designed to study the broad impact that the automobile has and continues to have on our nation and the world. Students will examine the automobile through historical documents, films, photographs, and music.

## HU 244 Science Fiction

4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 100
Isaac Asimov called science fiction "the literature of change." The course will analyze films, short stories, and a classic science fiction novel to understand the ways this popular genre entertains us and gives us insight into the impact science and technology has had on us.

## HU 289 Racing Through Film

## 4 Class Hours 4 Quarter Credit Hours

Racing Through Film is a course dedicated to examining how the sport of motor racing has been explored through film. Through reading, discussion and viewing films we will consider such issues as the history of racing, questions of masculinity and the often countercultural and rebellious nature of racing, with particular interest in the anti-hero figure.

## HU 291 Critical Thinking and Chess

4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 100
This course teaches critical thinking and problem-solving skills by using the game of chess as an empirical model for evaluating situations, calculating risks, predicting the consequences of possible actions, solving problems efficiently, and investigating the benefits and limits of reasoning and creative play. Students will demonstrate those skills by solving a wide variety of tactical and strategic problems in chess, by writing a thoughtful analysis of the qualities necessary for a successful thinker/problem solver, and by applying those qualities to situations in one's personal life and career. Chess will be used as a model for critical thinking skills and life skills.

## Japanese (Arts/Foreign Language Core)

## JP 201 Introduction to Japanese

4 Class Hours 4 Quarter Credit Hours
Students will be introduced to the basics of Japanese, (speaking, listening, reading, and writing) with an emphasis on comprehension and speaking. Vocabulary used in everyday communication in the workplace, school, and common social situations will be covered. Contemporary Japanese society will be
addressed in class discussions and video presentations including, but not limited to art, education, film (in particular animé), food, literature, music, sports, and technology. Japanese technological invention and know-how, as well as the unique challenges of doing business with the Japanese will be studied. Japanese guest speakers will be invited to share their expertise and experiences.

## Mathematics (Math/Science Core)

## MA 100 Introduction to College Math with Lab

2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: Placement exam
Topics to be covered in this lab-based introductory algebra course include operations with signed numbers, rules for exponents, polynomial operations, solutions to linear equations in one variable, and several applications important to various programs.

## MA 105 Basic College Math with Lab

4 Class Hours 2 Lab Hours 5 Quarter Credit Hours
Prerequisite: Placement exam
Topics to be covered in this lab-based introductory algebra course include operations with signed numbers, rules for exponents, polynomial operations, solutions to linear equations in one variable, and several applications important to various programs.

## MA 109 Math for Life Science

## 4 Class Hours 4 Quarter Credit Hours

This course is designed to assist in the understanding of the proper techniques needed to perform accurate dosage calculations; vital signs in order to ensure patient safety. This course will focus on developing the mathematical skills, critical thinking and quantitative reasoning methods needed to apply medical language and systems of measurement to solve problems in a variety of healthcare settings.

## MA 110 Introduction to College Math

4 Class Hours 4 Quarter Credit Hours
Prerequisite: Placement exam
Topics to be covered in this introductory algebra course include operations with signed numbers, rules for exponents, polynomial operations, solutions to linear equations in one variable, and several applications important to various programs.

## MA 121 Business Math

4 Class Hours 4 Quarter Credit Hours
Prerequisite: MA 100/110 or MA 105 or MA 106 or MA 109
This is an elementary applied course studying such business topics as interest rates, discounts, payrolls, markups, depreciation, insurance, mortgages, and basic statistics.

## MA 125 Technical Math I

4 Class Hours 4 Quarter Credit Hours
Prerequisite: MA 105 or MA 100/110
Topics to be studied include the analytic geometry of a straight line, systems of linear equations, trigonometry, vectors and their applications, and quadratic equations.

## MA 200 Applied Math for Business

4 Class Hours 4 Quarter Credit Hours
Prerequisite: MA 105 or MA 100/110
MA 200 is designed to help with the transition from basic algebra to more advanced business-related courses, such as statistics and finance. Applications will be stressed throughout the course. Specific
topics include linear functions, quadratic functions, descriptive statistics, exponential functions, and annuities.

## MA 210 Technical Math II

4 Class Hours 4 Quarter Credit Hours
Prerequisite: MA 125
The following four major topics and their applications will be studied: Cramer's Rule, exponential and logarithmic functions, trigonometry, and complex numbers.

## Physics Courses (Math/Science Core)

## PHY 126 Applied Physics \& Lab

3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: MA 100/110 or MA 109
This course studies the applications of fundamental concepts of physics. The topics covered include: the motion of objects, the forces that cause motion, velocity, acceleration, Newton's Laws, torques, work, power, and energy. The laboratory component is designed to give students the opportunity to have hands-on experience with the fundamental concepts of physics studied in the theory portion of the course.

## PHY 200 Physics I \& Lab

3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: MA 125
This course is a non-calculus approach to the study of fundamental physics and includes kinematics and dynamics of bodies, velocity, acceleration, and Newton's laws of motion, forces in equilibrium, concurrent and non-concurrent forces, work, power, energy, and torque. Labs are performed within the course to reinforce concepts.

## Psychology (Social Sciences Core)

## PS 140 Life-Span Development

## 4 Class Hours 4 Credit Hours

The purpose of Life-Span Development is to introduce students to the broad concepts of human growth and development from conception to death. Students will be introduced to human development from the prenatal stage to death with particular emphasis placed on early childhood, adolescence and old age. The course is especially designed for students entering the healthcare professions as the slant is toward practical application of all stages. Upon completion of the course, students should be able to demonstrate a basic knowledge of the developmental stages of life.

## PS 201 Introduction to Psychology

4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 100
This introductory course in psychology is a survey of the multiple aspects of human behavior. It includes, but is not limited to, such topics as the history of psychology, the biological foundations of behavior, memory, learning, personality, psychological disorders and treatment and social behavior. Importantly, this course will be geared to stress those areas of more practical significance for those in medical service fields.

## PS 202 Psychology of Healthcare

## 4 Class Hours 4 Credit Hours

Prerequisite: EN 100
This course addresses the human element of clinical competence in providing health care. Students will explore the psychodynamics of interactions between health care workers and patients, the psychological influences of illness and pain, the psychosocial factors that impact one's effectiveness as a health care team member, the impact of families on a patient's treatment plan, the role of body image in patient responsiveness to treatment, and a variety of other psychosocial factors that influence health care delivery.

## PS 203 Psychology of Happiness

4 Class Hours 4 Credit Hours
This course will explore the psychological principles associated with the experience, feelings and thoughts of happiness. Students will be exposed to a variety of research investigations that have studied different variables that impact happiness. Some of the subtopics discussed in this course include ways to define and measure happiness, differences and similarities in happiness across cultures, happiness and money, and ways to increase happiness.

## PS 210 Human Relations in the Workplace

4 Class Hours 4 Quarter Credit Hours
Major skill areas covered in the course include making a good impression with your employer, managing conflict with difficult coworkers, working on a team with diverse groups of people, providing exceptional customer service, and managing on-the-job stressors. This course provides a set of practical human relations techniques that will help students increase the likelihood of job security and career advancement in any current or future job.

## Science (Math/Science Core)

## SCI 110 Environmental Science

4 Class Hours 4 Quarter Credit Hours
This course will focus on man's interaction with his environment. It will cover current issues like global warming, human population growth, and pollution.

## Sociology (Social Sciences Core)

## SO 203 Social Problems

## 4 Class Hours 4 Quarter Credit Hours

This course will examine contemporary social issues from multiple perspectives. Attempts to see the ethics, the arguments and the policy outcomes involved in problems such as drug abuse, crime, poverty and the global environment.

## SO 220 Internet and Society

## 4 Class Hours 4 Quarter Credit Hours

Prerequisite: B- or better in EN 100
Internet and Society is an online course that focuses on the impact of the Internet on our lives. The goal of this course is to encourage students to think deeply and critically about the reality of living in a technology-driven society and how technological change influences work, families, social lives, education, and privacy.

## SO 231 Crime and Deviance

## 4 Class Hours 4 Quarter Credit Hours

Prerequisite: EN 100
This course traces the historical development of crime and deviance. A review of the social, physiological, and psychological theories of crime are examined. Topics such as the history of policing and the history of corrections are also reviewed.

## Spanish (Arts/Foreign Language Core)

These courses are designed for students with no prior knowledge of Spanish.

## SP 201 Introduction to Spanish

## 4 Class Hours 4 Quarter Credit Hours

This course will introduce students to the Spanish language with an emphasis on the use of Spanish in the workplace. Students will learn to communicate with customers and other employees in Spanish with a focus on basic vocabulary words used in everyday interactions at the workplace. Topics covered include conversational skills as well as key principles of Spanish grammar and cultural traditions in Spanishspeaking countries.

## SP 203 Spanish for Healthcare Workers

## 4 Class Hours 4 Quarter Credit Hours

This course will introduce students to the Spanish language with an emphasis on the use of Spanish in the workplace. Students will learn to communicate with Spanish speaking patient and family and other employees in Spanish with a focus on basic vocabulary words used in everyday interactions at the workplace. While each class will emphasize conversational skills, the course will also cover some key principles of Spanish grammar and provide some exposure to a variety of cultural traditions in Spanishspeaking countries.

## Social Sciences (Social Sciences Core)

## SS 140 Criminal Investigations

## 4 Class Hours 4 Quarter Credit Hours

In this course, students will get exposure to a wide range of interpersonal and scientific factors that are explored by criminal investigators in their efforts to support hypotheses developed to solve a variety of crimes. Some of the course topics will include the appropriate collection of evidence at a crime scene, techniques for interviewing witnesses and suspects, the role of the crime lab, the science of fingerprinting, forensic medicine, and the preparation of testimony that leads to the conviction of criminals.

## SS 201 American Government in Action

4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 100
This is an introductory course that will help students understand how the pieces of American government fit together, and how politics continuously affects their lives. Students will examine the roles of interest groups, the media, political parties and the three branches of government. Class discussions about relevant and current political issues will be encouraged.

## SS 203 Terrorism and National Security

## 4 Class Hours 4 Quarter Credit Hours

Prerequisite: EN 100
This course examines the challenge contemporary terrorism presents for U.S. national security. It investigates the causes of terrorism and inquires into the motives, objectives, methods, and effectiveness of contemporary terrorist groups with an emphasis on al Qaeda. Analysis of the determinants of American counter-terrorism policies and evaluation of the effectiveness of these initiatives are central themes of the course. As such, evaluation of the roles the invasion of Afghanistan, the Iraq War, covert operations,
domestic and foreign internal security initiatives, and global law enforcement operations have played in addressing the terrorist threat are major points of emphasis.

## SS 204 Juvenile Justice System in America

## 4 Class Hours 4 Quarter Credit Hours

Prerequisite: EN 100
The course is designed to explore the components of the juvenile justice system in America. The various features, characteristics, policies and concerns about the juvenile justice system are carefully examined. As part of the review, adolescent behavior and influence of the family dynamic will be discussed. The detention of juveniles, the various programs focused on the diversion of youths from the juvenile justice system, rehabilitation programs and prevention programs will also be reviewed.

## SS 221 Technology and American Life

## 4 Class Hours 4 Quarter Credit Hours

Prerequisite: EN 100
The course, based on abstract thinking and analysis, examines the interactive relationship between technology and society over historic time and across geographic space. The course will address basic questions about technology and its place in society. Students will be able to evaluate the impact of social change on their lives, and the impact of their technology on changing the social system.

## SS 222 Mindful Living

## 4 Class Hours 4 Quarter Credit Hours

On a single day, how often do you find yourself pulled in multiple directions? In a world inundated with information, and increasingly demanding of our time and attention, it can be overwhelming to know how to even begin prioritizing what is important. What if there were something you could do to increase your productivity, reduce anxiety and stress, and be more fully present in your daily experiences? Welcome to the practice of mindfulness -sustained, purposeful, moment-to-moment attention without judgement. Research studies have shown that a regular mindfulness practice yields concrete physical and emotional benefits, including reduced stress, decreased physical pain, increased concentration, and a happier mindset. In this course, you will learn different ways to practice mindful living.

## Questions \& Answers

## 1. When do my classes meet?

Day Classes: Technical classes normally meet for at least three hours a day for up to five days a week. Classes normally begin in the early morning (7:45 a.m.), late morning (usually 11:25 a.m.), or midafternoon. The time slot for your program may vary from term to term.

Evening Classes: Technical classes meet on the average of three nights a week, although there may be times when they will meet four nights a week. Classes normally begin at 5:45 p.m.

In addition, to achieve your associate degree, you will take a total of approximately eight liberal arts courses, which will be scheduled around your technical schedule over the course of your entire program. Each liberal arts course meets approximately four hours per week. Liberal arts courses are offered days, evenings, and Saturdays.

At the beginning of each term you will receive a detailed schedule giving the exact time and location of all your classes. The College requires that all students be prepared to take classes and receive services at any of NEIT's locations where the appropriate classes and services are offered.

When a regularly scheduled class falls on a day which is an NEIT observed holiday (Columbus Day, Veterans Day, Martin Luther King, Jr. Day, and Memorial Day), an alternate class will be scheduled as a make up for that class. The make up class may fall on a Friday. It is the student's responsibility to take note of when and where classes are offered.

## 2. How large will my classes be?

The average size for a class is about 20 to 25 students; however, larger and smaller classes occur from time to time.

## 3. How much time will I spend in lab?

Almost half of your technical courses consist of laboratory work. In order for you to get the most out of your laboratory experiences, you will first receive a thorough explanation of the theory behind your lab work.

## 4. Where do my classes meet?

Students should be prepared to attend classes at any of NEIT's classroom facilities: either at the Post Road, Access Road, or East Greenwich campus.

## 5. I have not earned my high school diploma or GED: can I enroll in an Associate Degree Program?

A candidate for admission to an associate degree program must have a high school diploma, have earned a recognized equivalency diploma (GED), or meet the federal home school requirements.

## 6. How long should it take me to complete my program?

To complete your degree requirements in the shortest possible time, you should take the courses outlined in the prescribed curriculum. For a typical six-term curriculum, a student may complete the requirements in as little as 18 months.

To complete all your degree requirements in the shortest time, you should take at least one liberal arts course each term. Students who need more time to complete their curriculum may postpone some of the liberal arts courses until after the completion of the technical requirements. Students are provided up to two additional terms of study to complete the liberal arts requirements without any additional tuition assessment fee. During these additional terms of study, students are required to pay all applicable fees.

Students may also elect to complete some of their liberal arts requirements during Intersession, a fiveweek term scheduled between Spring and Summer Quarters. Students will not be assessed any additional tuition for liberal arts courses taken during the Intersession but may be assessed applicable fees.

Students wishing to extend the number of terms needed to complete the required technical courses in their curriculum will be assessed additional tuition and fees.

## 7. Is NEIT accredited?

NEIT is accredited by the New England Commission of Higher Education. Accreditation by NECHE is recognized by the federal government and entitles NEIT to participate in federal financial aid programs. Some academic departments have specialized professional accreditations in addition to accreditation by NECHE. For more information on accreditation, see NEIT's catalog.

## 8. Can I transfer the credits that I earn at NEIT to another college?

The transferability of a course is always up to the institution to which the student is transferring. Students interested in the transferability of their credits should contact the Office of Teaching and Learning for further information.

## 9. Can I transfer credits earned at another college to NEIT?

Transfer credit for appropriate courses taken at an accredited institution will be considered upon receipt of an official transcript for any program, biology, science, and mathematics courses in which the student has earned a " C " or above within the past three years and for English or humanities courses in which the student has earned a "C" or above within the last ten years. An official transcript from the other institution must be received before the end of the first week of the term for transfer credit to be granted for courses to be taken during that term. Students will receive a tuition reduction for the approved technical courses based on the program rate and will be applied against the final technical term of the curriculum's tuition amount. No tuition credit is provided for courses which are not a part of the technical curriculum.

## 10. What is the "Feinstein Enriching America" Program?

New England Institute of Technology is the proud recipient of a grant from the Feinstein Foundation. To satisfy the terms of the grant, the College has developed a one-credit community enrichment course which includes hands-on community enrichment projects. The course can be taken for a few hours per term, spread over several terms. Students who are already engaged in community enrichment on their own may be able to count that service towards course credit.

## 11. How many credits do I need to acquire my Financial Aid?

In order to be eligible for the maximum financial aid award, you need to maintain at least 12 credits per academic term.

## 12. What does my program cost?

The cost of your program will be as outlined in your enrollment agreement, along with your cost for books and other course materials. Students who decide to take more terms than the enrollment agreement describes to complete the technical courses in their curriculum will be subject to additional fees and possible additional tuition costs. Students who elect to take the technical portion of the degree requirements at a rate faster than the rate prescribed in the curriculum and the enrollment agreement will be assessed additional tuition.

Students who require prerequisite courses will incur additional tuition and fees above those outlined in their enrollment agreement.

If a student elects to take a course(s) outside of the prescribed curriculum, additional tuition and fees will be assessed.

Remember, students who withdraw and re-enter, one time only, pay the tuition rate that was in effect for them at the time of their last day of attendance for up to one year from their last day of attendance. Second re-entries and beyond pay the tuition rate in effect at the time they re-enter. The most economical way for you to complete your college degree is to begin your program now and continue your studies straight through for the six terms necessary to complete your degree requirements.

## 13. What kind of employment assistance does NEIT offer?

The Career Services Office assists NEIT students and graduates in in all aspects of the job search, including resume writing, interviewing skills, and developing a job search strategy. Upon completion of their program, graduates may submit a resume to the Career Services Office to be circulated to employers for employment opportunities in their fields. Employers regularly contact us about our graduates. In addition, our Career Services Office contacts employers to develop job leads. A strong relationship with employers exists as a result of our training students to meet the needs of industry for over fifty years. No school can, and NEIT does not, guarantee to its graduates employment or a specific starting salary

## 14. Where will job opportunities exist?

Graduates have obtained employment in the local area. However, one of the most exciting aspects of this program is the ability to look nationally for employment opportunities.

## 16. What kind of jobs will I be qualified to look for?

Generally, jobs will exist in the entry-level positions in the computer industry. Entry-level positions in digital production and desktop production, programmer, entry-level game designer, entry-level game developer, or web developer may be some of the job choices available to a graduate with an associate degree. Upon completion of a bachelor's degree at NEIT, positions on the management level become attainable.

## Technical Standards

These technical standards set forth by the Game Development and Simulation Programming department establish the essential qualifications considered necessary for students admitted to the program. The successful student must possess the following skills and abilities or be able to demonstrate they can complete the requirements of the program with or without reasonable accommodation, using some other combination of skills and abilities.

## Cognitive Ability

- Good reasoning and critical thinking skills.
- Ability to learn, remember and recall detailed information and to use it for problem solving.
- Ability to deal with materials and problems such as organizing or reorganizing information.
- Ability to use abstractions in specific concrete situations.
- Ability to separate complex information into its component parts.
- Ability to perform tasks by observing demonstrations.
- Ability to perform tasks by following written instructions.
- Ability to perform tasks following verbal instructions.
- Possession of basic keyboarding skills and knowledge of computer programs.


## Communications Skills

- Ability to speak in understandable English in a classroom situation on a one-on-one basis as well as before a group.
- Ability to communicate effectively with faculty and other students.
- Ability to demonstrate and use the knowledge acquired during the classroom training process.
- Ability to verbally express technical concepts clearly and distinctly.
- Ability to express thoughts clearly.


## Adaptive Ability

- Ability to remain calm in the face of computer lab equipment and/or software failure.
- Ability to maintain emotional stability and the maturity necessary to interact with members of the faculty and students in a responsible manner.
- Ability to tolerate the differences in all students, faculty, and administration.
- Ability to follow instructions and complete tasks under stressful and demanding conditions.
- Ability to adapt in a positive manner to new and changing situations with an open mind and flexibility.
- Ability to think clearly and act quickly and appropriately in stressful situations.


## Physical Ability

- Ability to sit continuously at a personal computer for long periods of time in order to learn and become proficient in computer programming and networking.
- Ability to perform learned skills independently, with accuracy and completeness within reasonable time frames in accordance with classroom and business procedures.


## Manual Ability

- Sufficient motor function and sensory abilities to participate effectively in the classroom laboratory.
- Sufficient manual dexterity and motor coordination to coordinate hands, eyes and fingers in the operation of computers and business equipment.


## Sensory Ability

- Visual
- Acute enough to see clearly and interpret the contents on the computer screen.


[^0]:    1. Subject to Change
