

# COURSE CATALOG

**2021–2022**

Published: June 2021

# Notices

## Degree Exemption

In accordance with the Degree-Granting Institutions Act Regulations (WAC 250-61-060 (3)), institutions that meet certain criteria are eligible for exemption from degree authorization. DigiPen Institute of Technology located in Redmond, Washington, USA is considered to be an eligible institution exempted from degree authorization requirements by the Washington Student Achievement Council effective November 1, 2012.

## Accreditation

DigiPen Institute of Technology is accredited by the Accrediting Commission of Career Schools and Colleges (ACCSC), a recognized accrediting agency by the U.S. Department of Education.

DigiPen Institute of Technology Singapore is also accredited by ACCSC as a branch campus of DigiPen Institute of Technology located in Redmond, Washington.

The Bachelor of Science in Computer Engineering program is accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org). This accreditation action extends retroactively from October 1, 2012.

The Bachelor of Science in Computer Science in Real-Time Interactive Simulation program is accredited by the Computing Accreditation Commission of ABET, [www.abet.org](http://www.abet.org). This accreditation action extends retroactively from October 1, 2015.

## Copyright Notice

Copyright © 2021 DigiPen (USA) LLC., and its owners. All Rights Reserved.

No parts of this publication may be copied or distributed, transmitted, transcribed, stored in a retrieval system, or translated into any human or computer language without the express written permission of DigiPen (USA) LLC., 9931 Willows Road NE, Redmond, WA 98052, USA.

## Trademarks

DigiPen® is a registered trademark of DigiPen (USA) LLC.

ProjectFUN® is a registered trademark of DigiPen (USA) LLC.

DigiPen Institute of Technology Europe-Bilbao® is a registered trademark of DigiPen (USA) LLC. All other product names mentioned in this booklet are trademarks or registered trademarks of their respective companies and are hereby acknowledged.

# Important Notices

All items including, but not limited to, application forms, transcripts, reference letters, resumes, software, and any accompanying documentation or works of art (collectively “the Items”), forwarded to the Institute\* by any person (the “Sender”) whether at the request of the Institute or otherwise, become the exclusive property of the Institute

unless otherwise agreed to in writing by the Institute, and the Institute shall be under no obligation whatsoever to return the Items to the Sender. At the Institute’s discretion, the Items may be destroyed after being reviewed.

DigiPen Institute of Technology Europe-Bilbao reserves the right to make changes to the curricula, calendar, and Course Catalog without any prior notice.

The course offerings and requirements of DigiPen Institute of Technology Europe-Bilbao are under continual examination and revision. The most recent edition of the Course Catalog supersedes any previous edition of the Course Catalog published for the same academic year. This catalog is not a contract; it merely presents the offerings and requirements in effect at the time of publication and in no way guarantees that the offerings and requirements will not change. The Institute specifically reserves the right to change requirements for any major during any particular year. The individual student assumes full responsibility for compliance with all current academic requirements. Current course offerings may be obtained from the Office of the Administration. Current major and degree requirements may also be obtained from the Office of the Administration. For the most current information, visit the Institute’s official Course Catalog online at [digipen.es/academics/current-courses](http://digipen.es/academics/current-courses).

*\*Please note that “Institute” and “DigiPen Europe-Bilbao” refer to “DigiPen Institute of Technology Europe-Bilbao” when used in the Course Catalog and “DigiPen” refers to “DigiPen Institute of Technology.”*

# Contact Information

## Name of the School

DigiPen Institute of Technology Europe-Bilbao

## Contact Information

DigiPen Institute of Technology Europe – Bilbao

Beta1 – Ribera de Zorrozaurre, 2

48014 Bilbao (Bizkaia) Spain

Telephone: 34- 94 636 51 63

Email: [info.es@digipen.es](mailto:info.es@digipen.es)

Web: [www.digipen.es](http://www.digipen.es)

## Campus List

### MAIN CAMPUS

DigiPen Institute of Technology

9931 Willows Road NE

Redmond, WA 98052

USA

Telephone: (866) 478-5236 or (425) 558-0299

Facsimile: (425) 558-0378

Email: [info@digipen.edu](mailto:info@digipen.edu)

Web: [www.digipen.edu](http://www.digipen.edu)

### BRANCH CAMPUSES

DigiPen Institute of Technology Singapore

510 Dover Road, #03-01

SIT@SP Building

Singapore 139660

DigiPen Institute of Technology Europe-Bilbao\*

Beta1 – Ribera de Zorrozaurre, 2

48014 Bilbao (Bizkaia)

Spain

## Local Degree Authorization

DigiPen Institute of Technology Europe-Bilbao has been permitted by the Basque Ministry of Education to establish its presence in the Basque Country as a foreign specialized institution.

## Programs of Study Offered

Currently, the Institute offers the following degree programs:

- Bachelor of Science in Computer Science in Real-Time Interactive Simulation
- Bachelor of Fine Arts in Digital Art and Animation

# Academic Calendar and Deadlines

## Fall 2021 Semester

| DATE  | EVENT  | REMARKS                |
|---|--|------------------------|
| <b>September 3, 2021</b><br><i>Friday</i>               | Orientation – Incoming Students  |                        |
| <b>September 6, 2021</b><br><i>Monday</i>               | Classes Begin – Fall 2021 Semester   |                        |
| <b>September 12, 2021</b><br><i>Sunday</i>              | Last day to drop Fall 2021 semester courses for 100% refund.   |                        |
| <b>September 13, 2021</b><br><i>Monday</i>              | Last day to add courses for Fall 2021 semester.  |                        |
| <b>September 20, 2021</b><br><i>Monday</i>              | Final day to drop courses without academic penalty.  |                        |
| <b>October 5, 2021</b><br><i>Tuesday</i>                | Withdrawal deadline for 50% refund.  |                        |
| <b>October 12, 2021</b><br><i>Tuesday</i>               | Día del Nuestra Señora del Pilar   | No Classes – Labs Open |
| <b>November 1, 2021</b><br><i>Monday</i>                | Día de Todos los Santos  | No Classes – Labs Open |
| <b>November 2, 2021</b><br><i>Tuesday</i>               | Final day to receive a “W” on transcript for Fall 2021 semester withdrawals. Withdrawals from the Institute after this date will receive a “WF” (or 0 quality points) which will appear on transcript. |                        |
| <b>November 25, 2021</b><br><i>Monday</i>               | Last day to submit Request for Change of Major for Spring 2022 semester.<br>Last day to submit Application for Readmission for Spring 2022 semester.   |                        |
| <b>December 1, 2021</b><br><i>Wednesday</i>             | Tuition Deposit due for Spring 2022 semester   |                        |
| <b>December 6, 2021</b><br><i>Monday</i>                | Día de la Constitución   | No Classes – Labs Open |
| <b>December 8, 2021</b><br><i>Wednesday</i>             | La Inmaculada de la Concepción   | No Classes – Labs Open |
| <b>December 13 – 17, 2021</b><br><i>Monday – Friday</i> | Fall Semester 2021 Final Exams   |                        |
| <b>December 17, 2021</b><br><i>Friday</i>               | Fall Semester 2021 Ends  |                        |
| <b>December 30, 2021</b><br><i>Thursday</i>             | Tuition balance due for Spring 2022 semester.  |                        |

## Spring 2022 Semester

| DATE   | EVENT   | REMARKS                |
|--|---|------------------------|
| <b>January 10, 2022</b><br><i>Monday</i>             | Spring Semester 2022 Begins   |                        |
| <b>January 16, 2022</b><br><i>Sunday</i>             | Last day to drop Spring 2022 semester courses for 100% refund.  |                        |
| <b>January 17, 2022</b><br><i>Monday</i>             | Last day to add courses for Spring 2022 semester.   |                        |
| <b>January 24, 2022</b><br><i>Monday</i>             | Final day to drop courses without academic penalty.   |                        |
| <b>February 3, 2022</b><br><i>Thursday</i>           | Founder's Day Observed  | No Classes – Labs Open |
| <b>February 8, 2022</b><br><i>Tuesday</i>            | Withdrawal deadline for 50% refund.   |                        |
| <b>March 7, 2022</b><br><i>Monday</i>                | Final day to receive a "W" on transcript for Spring 2022 semester withdrawals.<br>Withdrawals from the Institute after this date will receive a "WF" (or 0 quality points) which will appear on transcript. |                        |
| <b>April 6, 2022</b><br><i>Wednesday</i>             | Last day to submit Request for Change of Major for Summer 2022 semester. Last day to submit Application for Readmission for Summer 2022 semester.   |                        |
| <b>April 11 – 18, 2022</b><br><i>Monday – Monday</i> | Spring Break  | No Classes – Labs Open |
| <b>April 25 – 29, 2022</b><br><i>Monday – Friday</i> | Spring Semester 2022 Final Exams  |                        |
| <b>April 29, 2022</b><br><i>Friday</i>               | Spring Semester 2022 Ends   |                        |
| <b>May 2 – 9, 2022</b><br><i>Monday – Monday</i>     | Intersession  |                        |
| <b>May 9, 2022</b><br><i>Monday</i>                  | Tuition balance due for Summer 2022 semester.   |                        |

# Summer 2022 Semester

| DATE  | EVENT   | REMARKS |
|---|---|---------|
| <b>May 9, 2022</b><br><i>Monday</i>                 | Summer Semester 2022 Begins   |         |
| <b>May 15, 2022</b><br><i>Sunday</i>                | Last day to drop Summer 2022 semester courses for 100% refund.  |         |
| <b>May 16, 2022</b><br><i>Monday</i>                | Last day to add courses for Summer 2022 semester.   |         |
| <b>May 23, 2022</b><br><i>Monday</i>                | Final day to drop courses without academic penalty.   |         |
| <b>June 7, 2022</b><br><i>Tuesday</i>               | Last day to receive 50% Summer 2022 tuition refund.   |         |
| <b>July 1, 2022</b><br><i>Friday</i>                | Tuition deposit due for Fall 2022 semester.   |         |
| <b>July 4, 2022</b><br><i>Monday</i>                | Final day to receive a "W" on transcript for Summer 2022 semester withdrawals.<br>Withdrawals from the Institute after this date will receive a "WF" (or 0 quality points) which will appear on transcript. |         |
| <b>July 4, 2022</b><br><i>Monday</i>                | Last day to submit Request for Change of Major for Fall 2022 semester. Last day to submit Application for Readmission for Fall 2022 semester.   |         |
| <b>July 18 – 22, 2022</b><br><i>Monday – Friday</i> | Summer Semester 2022 Final Exams  |         |
| <b>July 22, 2022</b><br><i>Friday</i>               | Summer Semester 2022 Ends   |         |
| <b>July 28, 2022</b><br><i>Thursday</i>             | Tuition balance due for Fall 2022 semester.   |         |

# Table of Contents

|   |           |
|---|-----------|
| <b>NOTICES</b> . . . . .  | <b>2</b>  |
| Degree Exemption . . . . .  | 2         |
| Accreditation . . . . .   | 2         |
| Copyright Notice . . . . .  | 2         |
| Trademarks . . . . .  | 2         |
| Important Notices . . . . .   | 2         |
| <b>CONTACT INFORMATION</b> . . . . .  | <b>3</b>  |
| Name of the School . . . . .  | 3         |
| Contact Information . . . . .   | 3         |
| Campus List . . . . .   | 3         |
| Local Degree Authorization . . . . .  | 3         |
| Programs of Study Offered . . . . .   | 3         |
| <b>ACADEMIC CALENDAR AND DEADLINES</b> . . . . .  | <b>4</b>  |
| Fall 2021 Semester . . . . .  | 4         |
| Spring 2022 Semester . . . . .  | 5         |
| Summer 2022 Semester . . . . .  | 6         |
| <b>BACHELOR OF SCIENCE IN COMPUTER SCIENCE IN REAL-TIME INTERACTIVE SIMULATION</b> . . . . .                              | <b>10</b> |
| Program Overview . . . . .  | 10        |
| Students Learning Outcomes . . . . .  | 10        |
| Students Learning Outcomes . . . . .  | 10        |
| Degree Requirements . . . . .   | 10        |
| Recommended Course Sequence for the Bachelor of Science in Computer Science in Real-Time Interactive Simulation . . . . . | 11        |
| <b>BACHELOR OF FINE ARTS IN DIGITAL ART AND ANIMATION</b> . . . . .   | <b>13</b> |
| Program Overview . . . . .  | 13        |
| Student Learning Outcomes . . . . .   | 13        |
| Career Outlook . . . . .  | 13        |
| Degree Requirements . . . . .   | 13        |
| Recommended Course Sequence for the Bachelor of Fine Arts in Digital Art and Animation . . . . .                          | 14        |
| <b>COURSES</b> . . . . .  | <b>16</b> |
| <b>DEPARTMENT OF ANIMATION AND PRODUCTION</b> . . . . .   | <b>16</b> |
| Animation Courses . . . . .   | 16        |
| Film Courses . . . . .  | 16        |
| Internship Courses . . . . .  | 17        |
| Projects Courses . . . . .  | 17        |
| <b>DEPARTMENT OF COMPUTER SCIENCE</b> . . . . .   | <b>18</b> |
| Computer Science Courses . . . . .  | 18        |
| <b>DEPARTMENT OF DIGITAL ARTS</b> . . . . .   | <b>21</b> |
| Computer Graphics Courses . . . . .   | 21        |
| <b>DEPARTMENT OF FINE ARTS</b> . . . . .  | <b>22</b> |
| Art Courses . . . . .   | 22        |

|   |           |
|---|-----------|
| <b>DEPARTMENT OF GAME SOFTWARE DESIGN AND PRODUCTION</b> . . . . .  | <b>24</b> |
| Game Projects Courses . . . . .                                     | 24        |
| <b>DEPARTMENT OF GENERAL STUDY</b> . . . . .                        | <b>26</b> |
| College Success Courses . . . . .                                   | 26        |
| <b>DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES</b> . . . . .       | <b>26</b> |
| Communications Courses . . . . .                                    | 26        |
| English Courses . . . . .   | 26        |
| Law Courses . . . . .   | 27        |
| Psychology Courses . . . . .  | 27        |
| Social Sciences Courses . . . . .                                   | 27        |
| <b>DEPARTMENT OF MATHEMATICS</b> . . . . .                          | <b>28</b> |
| Mathematics Courses . . . . .                                       | 28        |
| <b>DEPARTMENT OF PHYSICS</b> . . . . .                              | <b>29</b> |
| Physics Courses . . . . .   | 29        |
| <b>STANDARDS OF PROGRESS</b> . . . . .                              | <b>31</b> |
| Semester Credit Hour . . . . .                                      | 31        |
| Grade Level Progression . . . . .                                   | 31        |
| Grading System . . . . .  | 31        |
| Withdrawal Information and Status . . . . .                         | 31        |
| Withdrawal Policy Deadlines . . . . .                               | 32        |
| Assessment Process . . . . .  | 32        |
| Grade Reports . . . . .   | 32        |
| Grade Point Average . . . . .                                       | 32        |
| Satisfactory Academic Progress . . . . .                            | 33        |
| Passing Classes and Graduation . . . . .                            | 33        |
| Repeating Courses . . . . .   | 33        |
| Course Overload . . . . .   | 33        |
| Attendance Policy . . . . .   | 33        |
| Excused Absence Policy . . . . .                                    | 34        |
| Withdrawing from Individual Courses . . . . .                       | 34        |
| Withdrawing from the Institute . . . . .                            | 34        |
| Hardship Withdrawal . . . . .                                       | 34        |
| Dean's Honor List Requirements . . . . .                            | 34        |
| Grade Changes and Grade Appeals . . . . .                           | 35        |
| Process for Grievances and Appeals . . . . .                        | 35        |
| Transcripts . . . . .   | 35        |
| Exams . . . . .   | 35        |
| <b>GENERAL INFORMATION</b> . . . . .                                | <b>37</b> |
| Institutional Mission . . . . .                                     | 37        |
| Notice of Non-Discrimination . . . . .                              | 37        |
| History of DigiPen Institute of Technology . . . . .                | 37        |
| About DigiPen Europe-Bilbao's Facilities . . . . .                  | 38        |
| Description of the Library Facilities and Internet Access . . . . . | 38        |
| Student Network and Internet Usage Policy . . . . .                 | 38        |
| Internet Filter Policy . . . . .                                    | 39        |
| <b>APPLYING TO DIGIPEN</b> . . . . .                                | <b>39</b> |
| Visiting DigiPen Europe-Bilbao . . . . .                            | 39        |

|   |           |   |           |
|---|-----------|---|-----------|
| Undergraduate Application Process . . . . .                               | 39        | <b>STUDENT INTERNSHIPS . . . . .</b>                                    | <b>50</b> |
| Art Portfolio . . . . .   | 40        | Overview of Internships for Credit . . . . .                            | 50        |
| Proof of Proficiency in the English Language . . . . .                    | 41        | General Information Regarding Internship Programs . . . . .             | 50        |
| Admission/Denial to DigiPen Europe-Bilbao's Programs . . . . .            | 41        | <b>CHANGE OF MAJOR AND GRADUATION . . . . .</b>                         | <b>50</b> |
| Reapplication Information . . . . .                                       | 41        | Requesting a Change of Major . . . . .                                  | 50        |
| Readmission Information . . . . .   | 41        | Graduation Requirements . . . . .                                       | 51        |
| Non-Degree Seeking . . . . .  | 42        | Applying for Graduation . . . . .                                       | 51        |
| <b>WAIVER CREDIT, ADVANCED<br/>PLACEMENT EXAMINATIONS, CLEP . . . . .</b> | <b>42</b> | Graduation Application Process . . . . .                                | 51        |
| Course Waiver Examinations . . . . .                                      | 43        | Graduating with Academic Honors . . . . .                               | 52        |
| Advanced Placement Examinations . . . . .                                 | 43        | Release of Student Directory, Academic, and Financial Records . . . . . | 53        |
| College-Level Examination Program (CLEP) . . . . .                        | 43        | Release of Student Directory Information . . . . .                      | 53        |
| Transfer Credit . . . . .   | 44        | Declining Release of Information . . . . .                              | 53        |
| Articulation Agreements . . . . .   | 44        | Allowing Release of Information . . . . .                               | 53        |
| Credit Evaluation Request . . . . .                                       | 44        |   |           |
| Transferability of Credits to Other Institutions . . . . .                | 44        |   |           |
| Granting Credits for Work Experience . . . . .                            | 44        |   |           |
| <b>TUITION AND FEES . . . . .</b>   | <b>45</b> |   |           |
| Application Fee . . . . .   | 45        |   |           |
| Enrollment Fee . . . . .  | 45        |   |           |
| Tuition Fee Payment . . . . .   | 45        |   |           |
| Late Registration Fee . . . . .   | 45        |   |           |
| Books and Supplies . . . . .  | 45        |   |           |
| Tuition . . . . .   | 45        |   |           |
| Administrative Fee . . . . .  | 45        |   |           |
| Alumni Audit Fees . . . . .   | 45        |   |           |
| Technology Fee . . . . .  | 45        |   |           |
| Name Change Fee . . . . .   | 45        |   |           |
| Transfer and Waiver Fees . . . . .  | 45        |   |           |
| Course Fees . . . . .   | 45        |   |           |
| <b>CANCELLATION AND REFUND POLICIES . . . . .</b>                         | <b>46</b> |   |           |
| Cancellation Policies . . . . .   | 46        |   |           |
| Tuition Refund Schedule . . . . .   | 46        |   |           |
| Tuition Account Reimbursement . . . . .                                   | 46        |   |           |
| <b>FINANCIAL ASSISTANCE . . . . .</b>                                     | <b>46</b> |   |           |
| Loans . . . . .   | 46        |   |           |
| <b>STUDENT AFFAIRS . . . . .</b>  | <b>46</b> |   |           |
| Career Services . . . . .   | 47        |   |           |
| Disability Support Services . . . . .                                     | 47        |   |           |
| Alumni Relations . . . . .  | 47        |   |           |
| <b>REGULATION OF CONDUCT AND<br/>DISCIPLINARY PROCEDURES . . . . .</b>    | <b>47</b> |   |           |
| Rules and Regulations . . . . .   | 47        |   |           |
| Penalties . . . . .   | 49        |   |           |
| Warnings . . . . .  | 49        |   |           |
| Procedures . . . . .  | 49        |   |           |
| Dismissal by the Institute . . . . .                                      | 49        |   |           |
| Appeals . . . . .   | 49        |   |           |



# Academic Information

Degree Programs  
Course Descriptions  
Standards of Progress

# Bachelor of Science in Computer Science in Real- Time Interactive Simulation

## Program Overview

The Bachelor of Science in Computer Science in Real-Time Interactive Simulation degree program aims to produce graduates who are exceptionally competent in the field of digital media, software development, real-time simulations, and game development. Graduates will possess an in-depth understanding of computer science theory and its applications to solving real-world problems in software engineering, including design, implementation, testing, deployment and maintenance of software solutions. They will not only excel as engineers in a team-based environment, but will also be aware of larger, societal impacts of their work, and will strive to be ethical practitioners.

## Students Learning Outcomes

Towards achieving the above objectives, upon completion of the BS in Computer Science in Real-Time Interactive

Simulation degree program, students are expected to achieve the following outcomes:

- Apply knowledge of computing and mathematics appropriate to the program's student outcomes and to the discipline
- Analyze a problem, and identify and define the computing requirements appropriate to its solutions
- Design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs
- Function effectively on teams to accomplish a common goal
- Understand professional, ethical, legal, security, and social issues and responsibilities
- Communicate effectively with a range of audiences
- Analyze the local and global impact of computing on individuals, organizations, and society
- Recognize the need for, and have an ability to engage in, continuing professional development
- Use current techniques, skills, and tools necessary for computing practice
- Apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of tradeoffs involved in design choices
- Apply design and development principles in the construction of software systems of varying complexity

## Career Outlook

Graduates of this degree program will possess entry-level skills to work in the video games industry, or as computer scientists, or software developer positions in

various industries such as digital entertainment, consumer electronics, large-scale software development, and defense. Specific areas of focus include artificial intelligence, computer graphics, database design and development, information systems, multimedia, networking, numerical simulations, physically-based rendering, and real-time interactivity, to name a few.

Potential entry-level position titles for new graduates include: Artificial Intelligence Developer, Computer Graphics Developer, Computer Programmer, Computer Scientist, Gameplay Programmer, Game Engine Developer, Game Engine Programmer, Graphics Programmer, Networking Programmer, Physics Programmer, Software Analyst, Software Developer, Software Development Engineer, Software Development Engineer in Test, Software Engineer, Tools Developer, Tools Programmer, User-Interface Programmer, Web Developer, Web Programmer, and Web Engineer.

## Degree Requirements

### NUMBER OF CREDITS AND GPA

The Bachelor of Science in Computer Science in Real-Time Interactive Simulation degree program requires completion of at least 142 credits with a cumulative GPA of 2.0 or better. The program usually spans eight semesters of 15 weeks each, or a total of four academic years.

### ART AND MUSIC

The following courses are required: CG 130 and three additional credits from the following: ANI 125, ART 105, FLM 115, FLM 151, FLM 152, or MUS 115.

### COMPUTER SCIENCE

The following courses are required: CS 100, CS 120, CS 170, CS 180, CS 200, CS 225, CS 230, CS 250, CS 260, CS 280, CS 300, CS 315, CS 330, and CS 350. Students must select 12 additional credits from Computer Science courses at the 200 course-level or higher.

### HUMANITIES AND SOCIAL SCIENCES

The following courses are required: ENG 110, and COM 150. Students must take six additional six credits of English courses and an additional three credits of Social Sciences courses.

### MATHEMATICS

The following courses are required: MAT 140, MAT 150 or MAT 180, MAT 200 or MAT 230, MAT 250, MAT 258, and two MAT electives numbered 200 or higher.

### PHYSICS

The following courses are required: PHY 200, PHY 200L, and PHY 250.

### PROJECTS

The following courses are required: GAM 100, GAM 150, GAM 200, GAM 250, GAM 300, and GAM 350. Two courses from the following list are also required: GAM 375, GAM 390, GAM 400, GAM 450, and GAM 490.

### GENERAL STUDIES

The following course is required: COL 499

## NOTE ON GENERAL EDUCATION COURSES

The following courses satisfy the general education requirement for the Bachelor of Science in Computer Science in Real-Time Interactive Simulation: ART or MUS elective (3), COM 150 (3), ENG 110 (3), six credits of English courses (6), three credits of Social Sciences courses (3), MAT 150 or MAT 180 (4), MAT 250 (3), PHY 200 (4), PHY 200L (1), and PHY 250 (4).

## Recommended Course Sequence for the Bachelor of Science in Computer Science in Real-Time Interactive Simulation

| SEMESTER              | COURSE   | COURSE TITLE  | CREDITS   |
|-----------------------|--|---|-----------|
| <b>Semester 1</b>     | MAT 140  | Linear Algebra and Geometry                             | 4         |
|                       | CS 100   | Computer Environment                                    | 4         |
|                       | CS 120   | High-level Programming I: The C Programming Language    | 4         |
|                       | ENG 110  | Composition   | 3         |
|                       | GAM 100  | Project Introduction                                    | 3         |
|                       | <b>Semester Total</b>  |   |           |
| <b>Semester 2</b>     | MAT 150 or MAT 180   | Calculus and Analytic Geometry I or Vector Calculus I   | 4         |
|                       | CS 170   | High-level Programming II: The C++ Programming Language | 4         |
|                       | CS 230   | Game Implementation Techniques                          | 3         |
|                       | COM 150  | Interpersonal and Work Communication                    | 3         |
|                       | GAM 150  | Project I   | 3         |
|                       | <b>Semester Total</b>  |   |           |
| <b>Summer</b>         | One or more of the following courses may be taken in the summer for those who wish to reduce the Semester 3 and/or Semester 4 course load: <b>CS 225, MAT 200, PHY 200</b> |   |           |
| <b>Semester 3</b>     | MAT 200 or MAT 230   | Calculus and Analytic Geometry II or Vector Calculus II | 4         |
|                       | CS 180   | Operating Systems I: Man-Machine Interface              | 3         |
|                       | CS 200   | Computer Graphics I                                     | 3         |
|                       | CS 225   | Advanced C/C++  | 3         |
|                       | GAM 200  | Project II  | 4         |
|                       | <b>Semester Total</b>  |   |           |
| <b>Semester 4</b>     | MAT 250  | Linear Algebra  | 3         |
|                       | PHY 200  | Motion Dynamics   | 4         |
|                       | PHY 200L   | Motion Dynamics Lab                                     | 1         |
|                       | CS 250   | Computer Graphics II                                    | 3         |
|                       | CS 280   | Data Structures   | 3         |
|                       | GAM 250  | Project II  | 4         |
| <b>Semester Total</b> |  |   | <b>18</b> |
| <b>Semester 5</b>     | MAT 258  | Discrete Mathematics                                    | 3         |
|                       | PHY 250  | Waves, Optics, and Thermodynamics                       | 4         |
|                       | CS 260   | Computer Networks I: Interprocess Communication         | 3         |
|                       | CS 300   | Advanced Computer Graphics I                            | 3         |
|                       | CS 330   | Algorithm Analysis                                      | 3         |
|                       | GAM 300  | Project III   | 4         |
|                       | <b>Semester Total</b>  |   |           |

| SEMESTER                                       | COURSE                    | COURSE TITLE  | CREDITS    |
|--|---------------------------|---|------------|
| <b>Semester 6</b>                              | Math Elective             | Any MAT course numbered 200 or higher                               | 3          |
|  | CS 315                    | Low-Level Programming   | 3          |
|  | CS 350                    | Advanced Computer Graphics II                                       | 3          |
|  | Computer Science Elective | Any CS course numbered 200 or higher                                | 3          |
|  | CG 130                    | 3D Computer Animation Production I                                  | 3          |
|  | GAM 350                   | Project III   | 4          |
|  | <b>Semester Total</b>     |   | <b>19</b>  |
| <b>Semester 7</b>                              | Math Elective             | Any MAT course numbered 200 or higher                               | 3          |
|  | Computer Science Elective | Any CS course numbered 200 or higher                                | 3          |
|  | English Elective          | Any ENG course of three credits or more                             | 3          |
|  | Art and Music Elective    | Select one: ANI 125, ART 105, FLM 115, FLM 151, FLM 152, or MUS 115 | 3          |
|  | GAM 375*                  | Project III   | 4          |
|  | <b>Semester Total</b>     |   | <b>16</b>  |
| <b>Semester 8</b>                              | English Elective          | Any ENG course of three credits or more                             | 3          |
|  | Computer Science Elective | Any CS course numbered 200 or higher                                | 3          |
|  | Computer Science Elective | Any CS course numbered 200 or higher                                | 3          |
|  | HSS Elective              | Any HIS, PSY, or SOS course of three credits or more                | 3          |
|  | COL 499                   | Career Search Preparation: Materials, Logistics, and Communication  | 1          |
|  | GAM 400*                  | Project IV  | 4          |
|  | <b>Semester Total</b>     |   | <b>17</b>  |
| <b>Degree Total (minimum credits required)</b> |                           |   | <b>142</b> |

\*Note: Other courses may fulfill this requirement. See Degree Program Requirements for details.

# Bachelor of Fine Arts in Digital Art and Animation

## Program Overview

The Bachelor of Fine Arts in Digital Art and Animation degree program is designed to prepare artists for a career in the entertainment industry. In this program artists are challenged to tell visual stories through games, short films, and narrative illustrations. This begins with a strong foundation in fine arts, animation, film, and digital arts. These topics are applied in cinematic projects and game projects following pipelines adapted from the professional world. An artist may choose to specialize in a specific field through individual projects, team-based projects, and other coursework.

## Student Learning Outcomes

Graduates of the Bachelor of Fine Arts in Digital Arts and Animation degree program have utilized software packages and technical tools common to the industry. In addition, they will have developed strong interpersonal communication skills and critical thinking strategies. These skills are augmented by general education courses ranging from programming and natural sciences to ethics and intellectual property.

## Career Outlook

Graduates of the program are prepared for the following entry- and intermediate-level positions: 2D Animator, 3D Animator, Character Modeler, Environment and Asset Modeler, Technical Artist, Concept Artist, UI Designer, Rigger, Lighter, Texture Artist, Camera Designer, Scene Planner, Composer, Match-move Artist, Visual Effects Artist, Simulation Artist, Storyboard Artist, Maquette Sculptor, Producer, Project Manager, Web Designer, and Art Instructor.

## Degree Requirements

### NUMBER OF CREDITS AND GPA

The Bachelor of Fine Arts in Digital Art and Animation degree program requires completion of at least 131 credits with a cumulative GPA of 2.0 or better. The program usually spans eight semesters of 15 weeks each, or four academic years.

### ANIMATION

The following courses are required: ANI 101 and ANI 151.

### ART

The following courses are required: ART 101, ART 115, ART 120, ART 125, ART 130, ART 150, ART 151, ART 200, ART 201, ART 251, ART 300, ART 350, ART 401, and ART 450.

### COMPUTER GRAPHICS

The following courses are required: CG 201, CG 225, CG 275, and CG 300.

### DIGITAL ART AND ANIMATION ELECTIVES

Nine credits from any of the following 300 level or higher courses: Art, Animation, Film, or Computer Graphics (excluding ART 400).

### FILM

The following courses are required: FLM 115 and either FLM 201 or FLM 210.

### HUMANITIES AND SOCIAL SCIENCES

The following courses are required: COM 250, LAW 115, SOS 115, ENG 116, and any three credits of English courses at the 150 course-level or higher.

### PROJECTS

The following courses are required: PRJ 101, and 24 additional credits of Project courses.

### SCIENCE

The following courses are required: CS 115 and three credits of Physics courses.

### GENERAL STUDIES

The following courses are required: COL 230 and COL 499.

### OPEN ELECTIVES

Sufficient additional credits to meet the required 131 semester credits for the program.

### GENERAL EDUCATION

Three credits of General Education courses, including Humanities and Social Sciences, and Mathematics.

### \*NOTE ON GENERAL EDUCATION COURSES

The following courses satisfy the general education requirement for the Bachelor of Fine Arts in Digital Art and Animation: ART 115 (3), ENG 116 (3), three credits of English courses (3), FLM 115 (3), LAW 115 (3), SOS 115 (3), CS 115 (3), COM 250 (3), three credits of Physics courses (3), and three credits of General Education courses (3).

# Recommended Course Sequence for the Bachelor of Fine Arts in Digital Art and Animation

| SEMESTER          | COURSE                             | COURSE TITLE  | CREDITS |
|-------------------|------------------------------------|---|---------|
| <b>Semester 1</b> | ANI 101                            | Animation Basics I  | 3       |
|                   | ART 101                            | The Language of Drawing I   | 3       |
|                   | ART 125                            | Tone, Color, and Composition I  | 3       |
|                   | ART 115                            | Art and Technology  | 3       |
|                   | ENG 116                            | Storytelling  | 3       |
|                   | <b>Semester Total</b>              |   |         |
| <b>Semester 2</b> | ANI 151                            | Animation Basics II   | 3       |
|                   | ART 120                            | Language of Drawing II  | 3       |
|                   | ART 130                            | Tone, Color, and Composition II   | 3       |
|                   | ART 151                            | Life Drawing I  | 3       |
|                   | ART 150                            | Human Anatomy   | 3       |
|                   | PRJ 101                            | The Basics of Production  | 3       |
|                   | <b>Semester Total</b>              |   |         |
| <b>Semester 3</b> | ART 201                            | Life Drawing II   | 3       |
|                   | CG 201                             | Introduction to 2D Computer Graphics                                    | 3       |
|                   | CG 225                             | Introduction to 3D Computer Graphics                                    | 3       |
|                   | FLM 115                            | History of Film and Animation   | 3       |
|                   | PRJ 201 or PRJ 202                 | 2D Animation Production or Game Art Project I                           | 4       |
|                   | <b>Semester Total</b>              |   |         |
| <b>Semester 4</b> | COL 230                            | College Success for Artists   | 1       |
|                   | ART 251                            | Character Design  | 3       |
|                   | ART 300                            | Perspective, Backgrounds, and Layouts                                   | 3       |
|                   | ART 350                            | Storyboards   | 3       |
|                   | CG 275                             | Introduction to 3D Animation  | 3       |
|                   | PRJ 251 or PRJ 252                 | 2D Animation Production or Game Art Project I                           | 4       |
|                   | <b>Semester Total</b>              |   |         |
| <b>Semester 5</b> | Digital Art and Animation Elective | Art, Animation, Film or Computer Graphics course numbered 300 or higher | 3       |
|                   | FLM 201 or FLM 210                 | Cinematography or Cinematography for Visual Effects                     | 3       |
|                   | ART 200                            | Animal Anatomy  | 3       |
|                   | CG 300                             | 3D Environment and Level Design   | 3       |
|                   | PRJ 300                            | 3D Production Pipeline  | 4       |
|                   | <b>Semester Total</b>              |   |         |
| <b>Semester 6</b> | Digital Art and Animation Elective | 300 level or higher: ART, ANI, FLM, or CG                               | 3       |
|                   | Digital Art and Animation Elective | 300 level or higher: ART, ANI, FLM, or CG                               | 3       |
|                   | CS 115                             | Introduction to Scripting and Programming                               | 3       |
|                   | COL 499                            | Career Search Preparaton: Materials, Logistics, and Communication       | 1       |
|                   | COM 250                            | Professional Communication  | 3       |
|                   | PRJ 350 or PRJ 352                 | Cinematic Production or Game Art Project II                             | 4       |
|                   | <b>Semester Total</b>              |   |         |

| SEMESTER                                       | COURSE                     | COURSE TITLE   | CREDITS    |
|--|----------------------------|--|------------|
| <b>Semester 7</b>                              | ART 401                    | Conceptual Illustration and Visual Development                     | 3          |
|  | ART 450                    | Portfolio  | 3          |
|  | Physics Elective           | Any three-credit Physics course                                    | 3          |
|  | English Elective           | Any English elective 150 level or higher                           | 3          |
|  | PRJ 400 or PRJ 402         | Cinematic Production or Game Art Project II                        | 4          |
|  | <b>Semester Total</b>      |  |            |
| <b>Semester 8</b>                              | General Education Elective | Any ENG, LAW, HIS, SOS, PSY, or MAT elective                       | 3          |
|  | Open Elective              | An elective of the student's choice from any department at DigiPen | 3          |
|  | SOS 115                    | Media and Ethics: A Social Science Perspective                     | 3          |
|  | LAW 115                    | Introduction to Intellectual Property and Contracts                | 3          |
|  | PRJ 450                    | Career Preparation   | 4          |
|  | <b>Semester Total</b>      |  |            |
| <b>Degree Total (minimum credits required)</b> |                            |  | <b>131</b> |

# Courses

Some courses listed as alternate prerequisites are not offered at every DigiPen campus. Please contact the Office of the Administration for more details.

## Department of Animation and Production

### Animation Courses

#### ANI 101 **Animation Basics I** (3 cr.)

Prerequisite(s): None

This course introduces the principles of animation through a variety of animation techniques. Topics include motion research and analysis, effective timing, spacing, volume control, stagecraft, and choreography. Weekly screenings of classic animation are held, followed by in-class critiques.

#### ANI 151 **Animation Basics II** (3 cr.)

Prerequisite(s): ANI 101

This course explores concepts and techniques of traditional animation. Motion and posing is explored through character development, which includes the expression of personality, mood, thought, and attitude. Emphasis is placed on the refinement of drawings, subtlety of movement, and creativity.

#### ANI 300 **3D Character Animation I** (3 cr.)

Prerequisite(s): ANI 151, CG 275

This course explores 3D character animation techniques of performance, physicality, and weight using basic rigs provided by the instructor. Special attention is given to thumbnailing key poses, video research, and stagecraft.

#### ANI 350 **3D Character Animation II** (3 cr.)

Prerequisite(s): ANI 300

This 3D animation course explores acting through the medium of the human voice, including narration, expressive reading, diction, lip-synchronization techniques, and vocal refinement.

#### ANI 399 **Special Topics in Animation** (3 cr.)

Prerequisite(s): None

The content of this course may change each time it's offered. It is for the purpose of offering a new or specialized course of interest to the faculty or students that is not covered by the courses in the current catalog.

#### ANI 400 **Cinematic Animation** (3 cr.)

Prerequisite(s): ART 401, ANI 350, FLM 275 or MUS 115

This course is a culmination of the student's ability to use animation as a storytelling medium. It also provides an opportunity for the student to demonstrate his or her personal artistic growth. Each student works to complete a short piece of cinematic animation. Working independently or in small groups with the instructor's approval, students may use either 2D or 3D tools.

### Film Courses

#### FLM 115 **History of Film and Animation** (3 cr.)

Prerequisite(s): None

This course examines the more than 100-year history of film and animation. Beginning with the scientific and technical advances that made these media technologies possible, students explore every major movement and genre as well as their impact on society. The course gives students critical vocabulary required for explaining story, animation, and cinematic techniques.

#### FLM 151 **Visual Language and Film Analysis** (3 cr.)

Prerequisite(s): None

Animation is ultimately filmmaking, and animators should learn from the many classics on how to effectively bring various film production elements together. Students review several films and study how the relationships between scripts, cameras, lighting, sets, production design, sound, acting, costumes, props, directing, and production lead to successful visual stories. They also examine the fundamental theories underlying visual storytelling. Understanding the creative processes utilized by these influential filmmakers provides insight into how students may improve their own animations.

#### FLM 201 **Cinematography** (3 cr.)

Prerequisite(s): FLM 115

This course explores camera composition, lighting, and editing techniques through a series of cinematic projects. Topics include 2D and 3D camera moves, film and script analysis, storytelling conventions, choreography, and staging.

#### FLM 210 **Cinematography for Visual Effects** (3 cr.)

Prerequisite(s): FLM 115

This course focuses on the technical aspects of cinematography including understanding how cameras work, how images are captured and processed, computer graphics theory, and image analysis.



### FLM 250 **Digital Post-Production** (3 cr.)

Prerequisite(s): FLM 151

The last step of any animation project involves the assembly of various production elements ranging from rendered files to sound effects. This is also the stage where the visual effects artists add the effects seen in today's movies. This course teaches the fundamental skills these artists use in post-production. Effective editing skills are the primary outcome of the course. Students will also cover the planning, execution, and addition of special effects to animation.

### FLM 399 **Special Topics in Film** (3 cr.)

Prerequisite(s): None

The content of this course may change each time it is offered. It is for the purpose of offering a new or specialized course of interest to the faculty and students that is not covered by the courses in the current catalog.

## Internship Courses

### INT 390 **Internship I** (4 cr.)

Prerequisite(s): None

Permission of instructor required.

An internship is any carefully monitored work or service experience in which an individual has intentional learning goals and reflects actively on what she or he is learning throughout the experience. It is usually a professional activity under general supervision of an experienced professional and in a job situation, which places a high degree of responsibility on the student.

### INT 450 **Internship II** (4 cr.)

Prerequisite(s): None

Permission of instructor required.

An internship is any carefully monitored work or service experience in which an individual has intentional learning goals and reflects actively on what she or he is learning throughout the experience. It is usually a professional activity under general supervision of an experienced professional and in a job situation, which places a high degree of responsibility on the student.

## Projects Courses

### PRJ 101 **The Basics of Production** (3 cr.)

Prerequisite(s): ART 101, ART 125, ANI 101

This course investigates production pipelines adopted by schools and companies. Topics include career opportunities, best practices and methodologies, efficient workflows, and basic navigation of common industry software. Projects range from small individual assignments to a limited team-based project within a game engine.

### PRJ 201 **2D Animation Production** (4 cr.)

Prerequisite(s): ART 120, ART 130, ANI 151, PRJ 101

This course is the first semester of a two-semester traditional animation project. Work is completed in small teams with a special emphasis on physicality. Additional topics include research, visual development, and production pipeline management.

### PRJ 202 **Game Art Project I** (4 cr.)

Prerequisite(s): ART 120, ART 130, ANI 151, PRJ 101

This course is the first semester of a two-semester project that focuses on the creation of a simple real-time game or simulation with 2D graphics. Artists work on cross-discipline teams of three or more members. Topics include visual design, game art pipeline, essential development practices, fundamentals of team dynamics, and task prioritization methods.

### PRJ 251 **2D Animation Production** (4 cr.)

Prerequisite(s): PRJ 201

This course is the second semester of a two-semester traditional animation project. Work is completed in small teams with a special emphasis on production quality. Topics include cleanup, scanning, coloring, raster and vector-based software, and production pipeline management.

### PRJ 252 **Game Art Project I** (4 cr.)

Prerequisite(s): PRJ 202

This course is the second semester of a two-semester project and focuses on the creation of a simple real-time game or simulation with 2D graphics. Topics include art polish, visual consistency, formal playtesting, game pacing, and game balance.

### PRJ 300 **3D Production Pipeline** (4 cr.)

Prerequisite(s): CG 275, PRJ 251 OR PRJ 252

This course introduces a limited 3D production pipeline through a one-semester individual project. A range of artistic disciplines will be covered, including modeling, texturing, rendering, rigging, and animation. Storyboards and designs for characters, environments, and assets are provided.

### PRJ 350 **Cinematic Production** (4 cr.)

Prerequisite(s): ART 300, CG 300, PRJ 300, ENG 116, ART 350

This course is the first semester of a two-semester sequence on the production of a short 2D or 3D film. The course focuses on concept, pre-production, and asset creation in a team environment. Topics include effective presentations, managing scope, and team dynamics.

### PRJ 352 **Game Art Project II** (4 cr.)

Prerequisite(s): ART 300, CG 300, PRJ 300, ENG 116, ART 350

This course is the first semester of a two-semester team production of a game. Topics include advanced art pipeline, game engine rendering, visual consistency, and advanced testing techniques.

### PRJ 400 **Cinematic Production** (4 cr.)

Prerequisite(s): ART 350, ENG 116, PRJ 350

This course is the second semester of a two-semester sequence on the production of a short 2D or 3D film. With pre-production completed, the sequence continues with final animation, rendering, and post-production. Commercial art direction, quality control, production deadlines, team dynamics, and technical challenges are addressed.

### PRJ 402 **Game Art Project II** (4 cr.)

Prerequisite(s): PRJ 352

This course is the second semester of a two-semester team production of a game. Topics include advanced art pipeline, game engine rendering, visual appeal and consistency, user interface design, animation polish, and advanced testing techniques.

### PRJ 450 **Career Preparation** (4 cr.)

Prerequisite(s): PRJ 400 or PRJ 402 or INT 390

This course focuses on building portfolios and reels in preparation for the professional world. Emphasis is placed on professional practices, methodologies, and presentation.

## Department of Computer Science

### Computer Science Courses

#### CS 100 **Computer Environment** (4 cr.)

Prerequisite(s): None

This course provides a detailed examination of the fundamental elements on which computers are based. Topics include number systems and computation, electricity and basic circuits, logic circuits, memory, computer architecture, and operating systems. Operational code and assembly languages are discussed and then implemented on a hardware platform, such as a personal computer or an autonomous vehicle.

#### CS 115 **Introduction to Scripting and Programming** (3 cr.)

Prerequisite(s): None

Credit may be received for CS 115 or for CS 120, but not for both.

This course introduces programming environments to students who are not experienced programmers. This course covers simple logic, programming flow, and the use of variables. It introduces students to the history of programming and the basic vocabulary of the programming industry. The course culminates in a series of hands-on exercises using this knowledge to solve problems. At his or her discretion, the instructor may cover special topics in programming or scripting.

#### CS 120 **High-Level Programming I: The C Programming Language** (4 cr.)

Prerequisite(s): None

This course serves as a foundation for all high-level programming courses and projects by introducing control flow through statement grouping, decision making, case selection, and procedure iteration as well as basic data types. Additionally, this course addresses the lexical convention, syntax notation, and semantics of the C programming language.

#### CS 170 **High-Level Programming II: The C++ Programming Language** (4 cr.)

Prerequisite(s): CS 120

This course introduces the C++ language with particular emphasis on its object-oriented features. Topics include stylistic and usage differences between C and C++, namespaces, function and operator overloading, classes, inheritance, templates, and fundamental STL components.

#### CS 180 **Operating Systems I: Man-Machine Interface** (3 cr.)

Prerequisite(s): CS 100 or CS 101, CS 170

This course presents an overview of modern operating systems as implemented on personal computers. It presents an overview of what an operating system is and does, with emphasis on the following topics: organization and design, process management, threading, interprocess communication, process synchronization, and memory management.

#### CS 200 **Computer Graphics I** (3 cr.)

Prerequisite(s): CS 170, MAT 140

This course presents fundamental mathematical elements, data structures, and algorithms useful for animating and viewing 2D primitives. The course aims to fulfill two objectives. The first objective is to provide students with a sufficient mathematical and algorithmic background to design and implement 2D graphics applications. The second objective is to prepare students with the knowledge required for writing 3D graphics applications. The first half of the course deals

with scan-conversion algorithms for rasterizing 2D primitives such as lines, circles, ellipses, triangles, and arbitrary polygons. The second half of the course is concerned with the viewing and animation of these 2D primitives. The course covers topics such as interpolation techniques, transformations, culling, clipping, animation techniques, and the 2D viewing pipeline.

### CS 225 **Advanced C/C++** (3 cr.)

Prerequisite(s): CS 170

This course builds on the foundation created in the first two high-level programming courses (CS 120 and CS 170). It presents advanced topics of the C/C++ programming language in greater detail. Such topics include advanced pointer manipulation, utilizing multi-dimensional arrays, complex declarations, and standard library functions. Advanced C++ topics include class and function templates, operator overloading, multiple inheritance, runtime type information, the standard template library, and performance issues.

### CS 230 **Game Implementation Techniques** (3 cr.)

Prerequisite(s): CS 120

Concurrent Course(s): CS 170

This presents game implementation techniques and engine architecture. Students investigate foundational concepts of game architecture, such as game-system component separation and game flow, while learning about essential elements such as the game state manager, input/output handler, and frame rate controller. This course introduces Windows programming, state machines, and collision detection algorithms, which students will integrate into their own remakes of classic games. As part of their implementation, students create and expand their own collision, vector, and matrix libraries, enabling them to incorporate basic physics engines. Students survey concepts in space partitioning, particle systems, map editors, and other elements as a bridge to more advanced concepts in implementation techniques and engine architecture.

### CS 250 **Computer Graphics II** (3 cr.)

Prerequisite(s): CS 200

This course examines the mathematical elements and algorithms used in the design and development of real-time 3D computer graphics applications, such as games, cockpit simulators, and architectural walk-throughs. 3D computer graphics involve drawing pictures of 3D objects, usually on a 2D screen. This process of generating a 2D image of a 3D graphics application can be described as a series of distinct operations performed on a set of input data. Each operation generates results for the successive one. This process is called the graphics rendering pipeline, and it is the core of real-time computer graphics. The graphics pipeline can be conceptualized as consisting of three stages: application, transformation, and rasterization. The course begins by introducing the 3D graphics pipeline. The application stage is examined from the viewpoint of the representation, modeling, and animation of 3D objects. Topics include user interaction,

camera animation techniques, simulation of dynamic objects, and collision detection techniques. Next, the course examines the process of mapping 3D graphic objects from model-space to viewport coordinates. The transformation stage implements this process. Finally, the conversion of a geometric primitive in viewport coordinates into a 2D image is studied. The rasterization stage implements this final process.

### CS 260 **Computer Networks I: Interprocess Communication** (3 cr.)

Prerequisite(s): CS 180, CS 225

This course introduces the hierarchical network communication in a distributed computing environment. Course topics cover network technologies, architecture, and protocols. The curriculum gives specific emphasis to the TCP/IP stack and in making students familiar with writing portable socket-based software. It prepares students for programming multiplayer games in later semesters.

### CS 261 **Computer Networks II** (3 cr.)

Prerequisite(s): CS 260

This class extends the TCP/IP protocols studied in CS 260 to wireless devices. This course goes further in depth into some topics covered in the introductory networks course, as well as additional subjects of interest. Topics include TCP/IP related protocols (such as NAT, WAP, and DNS), physical media access (such as aloha, OFDM, and WIDEBAND), wireless standards and protocols and network security. The curriculum covers additional topics based on the state of the industry.

### CS 280 **Data Structures** (3 cr.)

Prerequisite(s): CS 225

This course introduces classical abstract data types (ADT) in computer science. ADTs provide the hierarchical views of data organization used in programming. Among the topics covered are the algorithms and primitives of the data structures for arrays, linked lists, stacks, queues, trees, hash tables, and graphs. In addition, the course provides an introduction to algorithm complexity and notation.

### CS 300 **Advanced Computer Graphics I** (3 cr.)

Prerequisite(s): CS 250

This course introduces students to algorithms that are essential to creating photorealistic images in interactive simulations. Topics covered include an overview of modern GPU (graphics processor unit) architecture and the common graphics APIs used, including OpenGL and DirectX. Rendering techniques covered include texturing, illumination models, transparency, shading algorithms, mapping techniques (bump mapping, environment/reflection mapping, etc.), and shadows. Students learn how to implement all algorithms by using vertex and pixel shaders.

### CS 315 **Low-Level Programming** (3 cr.)

Prerequisite(s): CS 100, CS 225

This course introduces modern microprocessor architectures. Topic areas include computer architecture, modern assembly languages, and writing assembly-language programs. Emphasis is placed on using assembly language to optimize high-level language programs.

### CS 325 **User Interface and User Experience Design** (3 cr.)

Prerequisite(s): CS 280

This course presents fundamental topics in the field of human-computer interface design. Topics covered in the course will help students understand human capabilities, design principles, prototyping techniques and evaluation methods for human-computer interfaces, with special emphasis on natural user interfaces. The course will guide the students towards an implementation of a novel user interaction.

### CS 330 **Algorithm Analysis** (3 cr.)

Prerequisite(s): MAT 200 or MAT 230, CS 225, CS 280

This course provides students with an introduction to the analysis of algorithms, specifically proving their correctness and making a statement about their efficiency. Topics for discussion may include loop invariants, strong mathematical induction and recursion, asymptotic notation, recurrence relations, and generating functions. Students examine examples of algorithm analysis from searching and sorting algorithms.

### CS 350 **Advanced Computer Graphics II** (3 cr.)

Prerequisite(s): CS 300

This course deals with the efficient representation and processing of complex 3D scenes in order to avoid bottlenecks in the use of the CPU and the GPU. Specific topics include a variety of spatial data structures (binary space-partitioning trees, octrees, kd-trees, and grid data structures), several object-culling methods (occlusion, viewport, and portal), and finally the construction and uses of bounding volumes and their hierarchies for collision detection and related geometric operations.

### CS 355 **Parallel Programming** (3 cr.)

Prerequisite(s): CS 330

This course presents an introduction to multi-threaded and distributed programming. The course covers some classical problems and synchronization mechanisms, as well as modern libraries that support parallel programming. The course also covers distributed programming models and applications to video game programming.

### CS 365 **Software Engineering** (3 cr.)

Prerequisite(s): CS 225

This course covers a wide range of topics in software engineering from the practical standpoint. It encompasses project management issues as well as technical development principles and methods. Topics include system architecture, security, methodologies and notation, UML, object-oriented analysis and design, requirements analysis, implementation, verification, validation, maintenance, and software engineering standards. Risk management and iterative design receive special emphasis. Student teams apply acquired knowledge to a substantial project.

### CS 370 **Computer Imaging** (3 cr.)

Prerequisite(s): CS 280

This course introduces image-processing methods and applications relevant to the development of real-time interactive simulations. The course covers fundamental concepts in image representation, image filtering, frequency domain processing, and image-based rendering methods. Topics include image serialization, 2D filtering, Fourier transforms, noise modeling, and high dynamic-range imaging.

### CS 380 **Artificial Intelligence for Games** (3 cr.)

Prerequisite(s): CS 280

This course introduces students to a wide range of concepts and practical algorithms that are commonly used to solve game AI problems. Case studies from real games are used to illustrate the concepts. Students have a chance to work with and implement core game AI algorithms. Topics covered include the game AI programmer mindset, AI architecture (state machines, rule-based systems, goal-based systems, trigger systems, smart terrain, scripting, message passing, and debugging AI), movement, pathfinding, emergent behavior, agent awareness, agent cooperation, terrain analysis, planning, and learning/adaptation.

### CS 381 **Introduction to Artificial Intelligence** (3 cr.)

Prerequisite(s): CS 330, MAT 258

This course covers fundamental areas of Artificial Intelligence, including various search algorithms, game playing, constraint satisfaction problems, propositional and first-order logic, and planning. The course will also explore practical skills relevant to implementation of AI techniques, practices, and design solutions.

### CS 388 **Introduction to Portable Game System Development** (3 cr.)

Prerequisite(s): CS 250, GAM 250

This course introduces students to portable game systems programming and development, which is different from PC programming and development due to the embedded structure of the machine. Students work with a very limited amount of memory and CPU power. To overcome the system's memory limitations, several graphics techniques are used,

such as tile-based game objects and backgrounds using color palettes. As for the CPU limitations, fixed point decimal is used instead of float numbers, along with asynchronous operations. Several portable game system specific topics, such as managing multiple graphics engines simultaneously and handling the touch pad are discussed.

### CS 391 **Code Analysis and Optimization** (3 cr.)

Prerequisite(s): CS 280, CS 315

This course focuses on understanding the details for the computer, compiler, and language, specifically how to apply these towards practical problem of solving crashes and performance issues. The emphasis is not only on knowing what and why, but also about taking that knowledge and creating useful tools and techniques for solving these problems.

### CS 399 **Special Topics in Computer Science** (3 cr.)

Prerequisite(s): None

Permission of instructor required.

The content of this course may change each time it is offered. It is for the purpose of offering a new or specialized course of interest to the faculty and students that is not covered by the courses in the current catalog.

### CS 460 **Advanced Animation and Modeling** (3 cr.)

Prerequisite(s): CS 300, CG 130, MAT 300

3D animation and modeling play significant roles in computer simulation and video game software. Game developers need to have a comprehensive understanding of these techniques. This course introduces algorithms for specifying and generating motion for graphical objects. It addresses practical issues, surveys accessible techniques, and provides straightforward implementations for controlling 3D moving entities with different characteristics. The class covers two broad categories. Students will first learn an interpolation-based technique, which allows programmers to fill in the details of the motion or shape once the animator specifies certain basic information, such as key frames, paths, coordinate grids, or destination geometry. Then, they learn a behavior-based technique, which generates motion that satisfies a set of rules, such as kinematics, physics, or other constraints.

## Department of Digital Arts

### Computer Graphics Courses

#### CG 130 **3D Computer Animation Production I** (3 cr.)

Prerequisite(s): None

This course introduces students to the basic theories and techniques of 3D computer animation. The curriculum

emphasizes standard 3D modeling techniques, including polygonal and spline modeling, texture map creation and application, keyframing, and animating through forward kinematics and inverse kinematics.

#### CG 201 **Introduction to 2D Computer Graphics** (3 cr.)

Prerequisite(s): ANI 151, ART 120, ART 130

This course introduces 2D computer graphics software and practices for digital painting and production. Topics include transition from traditional to digital art, photo editing and manipulation, material studies, critical thinking skills and techniques, conceptualization, and illustration.

#### CG 225 **Introduction to 3D Computer Graphics** (3 cr.)

Prerequisite(s): ANI 101, ART 120, ART 130

This course introduces students to 3D software and practices for production. Topics include organization strategies, modeling, unwrapping, texture mapping, rigging, lighting, and cameras.

#### CG 275 **Introduction to 3D Animation** (3 cr.)

Prerequisite(s): CG 225, ANI 151

This course explores and exercises the concepts and techniques of 3D animation through a series of assignments applied to characters. The course emphasizes character development in the expression of personality, mood, thought, and attitude through motion and posing.

#### CG 300 **3D Environment and Level Design** (3 cr.)

Prerequisite(s): CG 275

This course introduces students to the principles of 3D environment design. Theatrical sets, architectural simulations, and level design are considered. In order to provide students with a broader skill set, this course also presents the mechanics of how to use other 3D animation software, with an emphasis on the unique strengths of the package. Students explore the comparative strengths of different software packages and the impact that this has on workflow. The course emphasizes critical thinking skills and strategies for tool selection.

#### CG 305 **Digital Sculpture** (3 cr.)

Prerequisite(s): CG 275

This course introduces an array of digital modeling, sculpting, and painting techniques with a set of industry-standard 3D and 2D tools. After a series of exercises, students learn the tools and work flow of digital sculpting and enhance their knowledge of anatomy. As part of this class, students create a highly finished 3D character that is fully designed, modeled, posed, sculpted, and textured. They also demonstrate knowledge of environmental sculpting.

### CG 310 **Game Team Art Production I** (3 cr.)

Prerequisite(s): CG 275

This course consists of the production of art for a game team. Students devise a production schedule at the beginning of the course. Evaluation of the art production comes from a faculty member who oversees the production milestones.

### CG 311 **Game Team Art Production II** (3 cr.)

Prerequisite(s): CG 310

This course is a continuation of CG 310, consisting of the production of art for a game team. Students devise a production schedule at the beginning of the course. Evaluation of the art production comes from a faculty member who oversees the production milestones.

### CG 350 **Graphics for Games** (3 cr.)

Prerequisite(s): CG 300

This course examines the unique problems of creating graphics for games, and it teaches effective production techniques for addressing these issues.

### CG 360 **Lighting and Rendering** (3 cr.)

Prerequisite(s): FLM 201 or FLM 210, CG 275

CG artists must develop strong lighting skills. This course looks at the subject through the world of film cinematography and covers the process of lighting both interior and exterior virtual environments. At the technical and artistic levels, students explore rendering techniques and strategies that efficiently produce a more convincing result.

### CG 375 **Character Rigging** (3 cr.)

Prerequisite(s): CG 275

This course exposes students to rigging techniques. All students will share models and texture sets and work on learning industry best practices for professional grade character rigs.

### CG 399 **Special Topics in Computer Graphics** (3 cr.)

Prerequisite(s): None

The content of this course may change each time it is offered. It is for the purpose of offering a new or specialized course of interest to the faculty or students that is not covered by the courses in the current catalog.

## Department of Fine Arts

### Art Courses

#### ART 101 **The Language of Drawing I** (3 cr.)

Prerequisite(s): None

Credit may be received for ART 101 or ART 102, but not both.

This course explores the nature of drawing as a language skill and the use of drawing by production artists and animators. Topics include applied drawing goals, critical thinking skills, and best practices in drawing practice, drill, and play. Design principles, reference research, and the design process are applied to a series of practical problems. This course also explores drawing materials, drawing strategy, drawing sequence, and linear drawing methodology, practice, and theory.

#### ART 105 **Art Processes** (3 cr.)

Prerequisite(s): None

This course provides a basic working knowledge of the processes used in making art. Topics include the origins and techniques involving drawing, tone, color, composition and artistic process as well as a simple overview of art history.

#### ART 115 **Art and Technology** (3 cr.)

Prerequisite(s): None

This course provides an overview of art history from Paleolithic times through the modern day. The course examines classical art materials and methods and traces the technological advances of society and art. It considers the interplay between art and technology and how they have historically impacted society.

#### Art 120 **Language of Drawing II** (3 cr.)

Prerequisite(s): ART 101

This course introduces construction drawing as a method to create the sensation of depth and volume in art. Particular attention is paid to planar- and value-based strategies to add a convincing sense of legitimacy and consistency in 2D art and animation.

#### ART 125 **Tone, Color, and Composition I** (3 cr.)

Prerequisite(s): None

This course introduces various methods for activating the picture plane, manipulating the viewer's visual experience, and visually communicating complex ideas and moods. These methods are reinforced through the study and application of light, darkness, value, color-harmony systems, and compositional strategies.



### ART 130 **Tone, Color, and Composition II** (3 cr.)

Prerequisite(s): ART 125

This course builds upon the theories, techniques, and practices introduced in ART 125 while introducing the concepts of analysis and extrapolation in the creation of a visual reference library for implementation in subsequent coursework.

### ART 150 **Human Anatomy** (3 cr.)

Prerequisite(s): ART 101

Corequisite(s): ART 151

This course explores the skeletal and muscular structures of the human body. Skeletal and muscular forms are identified from both live models and anatomical references. Topics include terminology, structural arrangement, and kinetic function. The course gives special emphasis to adapting this knowledge to the needs of artists and animators.

### ART 151 **Life Drawing I** (3 cr.)

Prerequisite(s): ART 101

This course introduces the challenges of drawing the human form and applying lessons in anatomy to the figure. Life drawing for animation is examined in this course by studying the skeletal structure, muscle form, gesture, and emotion when drawing a live model.

### ART 200 **Animal Anatomy** (3 cr.)

Prerequisite(s): ART 150

This course introduces the major skeletal and muscular structures of animals. Topics include terminology, structural arrangement, and kinetic function. The course also considers standard locomotion cycles and the relationship between humans and various animals. This course gives special emphasis to adapting this knowledge to the needs of artists and animators.

### ART 201 **Life Drawing II** (3 cr.)

Prerequisite(s): ART 125, ART 151

This course emphasizes drawing the human form from a structural perspective. Strategies for visualizing anatomy are explored. These include identifying bony landmarks and constructing the form through primitives and value. Additional topics include drawing the clothed figure and foreshortening.

### ART 225 **3D Design and Sculpture** (3 cr.)

Prerequisite(s): ART 201

This course introduces students to the principles of 3D design using both traditional and digital tools. Students become acquainted with additive, subtractive, and cast sculpture. They consider the basic concepts of architectural space, interior design, landscape design, surface interplay with light, lofted forms, and skinning systems. Students use modern polymer clays and build an animation maquette.

### ART 230 **Painting** (3 cr.)

Prerequisite(s): ART 125

This course explores ideas and various techniques related to painting. The use of color and the representation of space is emphasized. Students explore masterworks, studio painting, and painting en plein aire. Technical and social problems related to painting are explored using portraiture, still life, and environment/landscape. A portable field easel and appropriate painting supplies will be required. The course will culminate in a group show of student projects.

### ART 234 **Survey of Sequential Art** (3 cr.)

Prerequisite(s): ART 125, ART 151

In this course, students will learn to explore and to exploit the power of sequential images as a medium to craft stories beyond storyboarding, photography, and film. Through the formats of the graphic novel and related forms, students will tackle problems of character and events; their solutions will be limited only by their imaginations. The course will begin with an historical overview of sequential art and will then examine storytelling through pictures, focusing on clarity and emotional impact. Students will examine contemporary styles and conventions and will be required to draw from previous art experiences, while honing their skills in drawing, perspective, design, color, typography, writing, editing, and acting. Demonstrations of multimedia techniques and computer technology relative to this field will also be introduced.

### ART 251 **Character Design** (3 cr.)

Prerequisite(s): ART 201, CG 201

This course introduces the traditions of character design and the basic structural strategies for creating animated characters. The course explores simplification gradients relative to human, animal, and inanimate object-based characters. It also considers issues of costume, personality, and story interaction. The course emphasizes professional applications, techniques, and standards of quality. The work completed in this course may serve as pre-production design for PRJ 300, PRJ 350, or ANI 300.

### ART 300 **Perspective, Backgrounds, and Layouts** (3 cr.)

Prerequisite(s): ART 201, CG 201

This course explores the animation pre-production skills of background and layout art. It emphasizes professional applications, techniques, and standards of quality. Students are guided through classical depth cue and perspective systems as they apply this knowledge to the creation of animation backgrounds and layouts. Additionally, students explore means of using drawing to create elements such as camera lens illusions, architectural space, theatrical sets, game visual design, matte painting, and surface texture.

### ART 301 **Concept Art Resources** (3 cr.)

Prerequisite(s): ART 251, CG 201, CG 275

This course builds upon all art disciplines, primarily 2D related skills, to prepare students for positions requiring the creation of concept art. Emphasis is placed on the importance of balancing speed of content generation with quality, as this is one of the most pressing and relevant challenges in this field. With this mindset, students are challenged to evaluate and understand new forms of character and environment generation. Both theory and technique are heavily stressed during this course, with the final tangible outcome being multiple portfolio pieces that demonstrate the individual's abilities and unique style/interests.

### ART 310 **Architectural Spaces, Design, and Lighting I**

(3 cr.)

Prerequisite(s): None

This course introduces students to the aesthetics and principles of 2D (floor plans and elevations) and 3D environment design. A survey of architectural styles from throughout the world is blended with concepts, such as emotion, mood, lighting, shadows, aesthetics, and more. The course emphasizes learning the architectural vocabulary as well as the aesthetics of environmental and game-level design. Texturing, spatial design, negative space, dramatic lighting, and other concepts that affect not only the psychology of level design but also gameplay principles are covered. Students participate in numerous field trips to local examples of architecture in order to gain an understanding of architectural spaces and the field's vocabulary.

### ART 350 **Storyboards** (3 cr.)

Prerequisite(s): ART 201, ENG 116, FLM 115

This course explores the animation pre-production skills of storyboard art. Emphasis is placed on storytelling and cinematography to create both production and presentation storyboards. Drawing is applied as a means to create story-flow, character development, mood, time, and place.

### ART 360 **Architectural Spaces, Design, and Lighting II: Period Styles** (3 cr.)

Prerequisite(s): ART 310

This class builds on the foundational skills and knowledge from Architectural Spaces, Design, and Lighting I (ART 310), covering more period styles. Additionally, students have opportunities to do more hands-on creation of art, models, and textures relative to various periods. Students participate in a variety of field trips in order to research and analyze architectural styles and then to build them in the computer lab.

### ART 399 **Special Topics in Art** (3 cr.)

Prerequisite(s): None

The content of this course may change each time it is offered. It is for the purpose of offering a new or specialized course of interest to the faculty or students that is not covered by the courses in the current catalog.

### ART 401 **Conceptual Illustration and Visual Development** (3 cr.)

Prerequisite(s): ART 300

This course explores the animation pre-production skills of conceptual illustration and visual development. Students apply their knowledge of drawing, storytelling, and composition to create speculative drawings for animation. They review compositional systems, design process, and illustration techniques. Additionally, students explore means of using drawing to visually explore story and character ideas from both existing and original story materials. They also consider adaptation, stylization, and visual variety. The course emphasizes professional applications, techniques, and standards of quality. The work completed in this course serves as pre-production design for PRJ 300, PRJ 350, or ANI 300.

### ART 450 **Portfolio** (3 cr.)

Prerequisite(s): PRJ 350 or PRJ 352

This course explores elements of personal branding and professional portfolio development. Emphasis is placed on visual continuity in the creation of traditional and digital art portfolios, web sites, demo reels, and promotional items. The course also covers strategies for job interviews, contract negotiations, understanding business documents, and exhibiting at trade shows.

## Department of Game Software Design and Production

### Game Projects Courses

#### GAM 100 **Project Introduction** (3 cr.)

Prerequisite(s): None

This course focuses on basic software development, concept development, and team dynamics. The central focus of the course is team development of a simple digital game or simulation. Industry history and practices will also be explored.

#### GAM 150 **Project I** (3 cr.)

Prerequisite(s): CS 120, GAM 100

This course focuses on the team creation of a simple digital two-dimensional game or simulation. Techniques are introduced for working effectively on a team, following a



development process, and using best practices in coding, design, communications, and team dynamics. Issues in game marketing and legal issues of game development are discussed.

#### **GAM 200 Project II** (4 cr.)

Prerequisite(s): GAM 150, CS 170 or CS 230

This course is the first semester of a two-semester project, which will be continued in GAM 250. Students will work together on teams of three or more to create a simple real-time two-dimensional game or simulation. Techniques are explored for working effectively on a team, following a development process, using discipline-based best practices, and applying core discipline-based skills to game development. This first semester focuses on pre-production to ensure the technology, tools, design, art, audio, and team are ready for full production in the following semester.

#### **GAM 250 Project II** (4 cr.)

Prerequisite(s): GAM 200

In this course, students work to complete the projects they began in GAM 200. Techniques are explored for iterating effectively, formal testing, tracking progress, and integrating design, art, and audio into a unified experience. This second semester focuses on production to bring the project to the point where the target audience finds it engaging.

#### **GAM 300 Project III** (4 cr.)

Prerequisite(s): GAM 250, CS 280

This course is the first semester of a two- or three-semester project, which will be continued in GAM 350, and then in GAM 375 for a three-semester project. Students will work together on teams of three or more to create an advanced real-time game or simulation. Techniques are explored for creating high-performance teams, tuning development processes for specific projects, using advanced discipline-based best practices, and applying specialized discipline-based skills to game development. This first semester focuses on pre-production to ensure the technology, tools, design, art, audio, and team are ready for full production in the following semester.

#### **GAM 350 Project III** (4 cr.)

Prerequisite(s): GAM 300

In this course, students work to complete the projects they began in GAM 300. This second semester focuses on production to bring the project to the point where the target audience finds it engaging. Furthermore, techniques are explored for creating effective resumes, interviewing, and pursuing internships. The project may be continued for a third semester in GAM 375.

#### **GAM 375 Project III** (4 cr.)

Prerequisite(s): GAM 350

This course is the final semester of the three-semester project begun in GAM 300 and continued in GAM 350. Techniques are explored for polishing design, art, and audio, creating effective marketing materials, and highlighting individual contributions to the project. This semester focuses on post-production and shipping a highly polished final project.

#### **GAM 390 Internship I** (4 cr.)

Prerequisite(s): GAM 250

An internship is any carefully monitored work or service experience in which an individual has intentional learning goals and reflects actively on what she or he is learning throughout the experience. It is usually a professional activity under general supervision of an experienced professional and in a job situation, which places a high degree of responsibility on the student.

#### **GAM 400 Project IV** (4 cr.)

Prerequisite(s): GAM 350 or GAM 390

In this course, students prepare their personal portfolio of projects in order to be ready for a professional job search. This can involve a new project to demonstrate a particular professional skill, or taking a previous project to very high level of quality.

#### **GAM 450 Project IV** (4 cr.)

Prerequisite(s): GAM 400

Credit may be received for only one of: CSP 450, GAM 450.

In this course, students prepare their personal portfolio of projects in order to be ready for a professional job search. This can involve a new project to demonstrate a particular professional skill, or working to complete a project they began in GAM 400.

#### **GAM 490 Internship II** (4 cr.)

Prerequisite(s): GAM 390

An internship is any carefully monitored work or service experience in which an individual has intentional learning goals and reflects actively on what she or he is learning throughout the experience. It is usually a professional activity under general supervision of an experienced professional and in a job situation, which places a high degree of responsibility on the student.

# Department of General Study

## College Success Courses

### COL 101 **College Life and Academic Skills** (1 cr.)

Prerequisite(s): None

This course assists students in developing the classroom and communication skills necessary to succeed in both educational and professional situations.

### COL 230 **College Success for Artists** (1 cr.)

Prerequisite(s): PRJ 201 or PRJ 202

This course introduces industry research, professional expectations, and requisite levels of proficiency. The course helps identify strengths, skills, interests, and areas for growth and requires the creation of an academic plan.

### COL 499 **Career Search Preparation: Materials, Logistics, and Communication** (1 cr.)

Prerequisite(s): None

This is a capstone course for students to prepare their application materials and learn how to effectively search for an entry-level job in their field. The goal of the course is for each student to have a polished resume, cover letter, business card, and online/web presence by the end of the semester, as well as a search strategy for seeking employment.

# Department of Humanities and Social Sciences

## Communications Courses

### COM 150 **Interpersonal and Work Communication**

(3 cr.)

Prerequisite(s): ENG 110 or ENG 116

This course provides an introduction to interpersonal and professional communication. Particular attention is paid to verbal and nonverbal communication skills, small-group communication, and conflict resolution.

### COM 250 **Professional Communication** (3 cr.)

Prerequisite(s): None

This course prepares students for the communication challenges that await them in the professional world. Topics covered may include professional networking strategies, career search materials, self-presentation and interview skills, and effective communication across all levels and functions of the workplace.

# English Courses

### ENG 110 **Composition** (3 cr.)

Prerequisite(s): None

This course focuses on generating and discussing ideas for composition and engages in all stages of the writing process, with emphasis on the development and application of critical thinking skills. The primary focus of the course is developing the ability to construct, write, and revise argumentative/persuasive essays. Assignments may also include other types of writing, such as narrative, descriptive, and comparative essays.

### ENG 116 **Storytelling** (3 cr.)

Prerequisite(s): None

This course covers the principal elements of storytelling including theme, character, perspective, setting, plot, and dialogue. It emphasizes non-visual media such as short stories, novels, and plays, though visual media including film and video games may be discussed as well.

### ENG 120 **Research, Reasoning, and Writing** (3 cr.)

Prerequisite(s): ENG 110

In this composition course, students practice advanced argumentative essay writing with a focus on research, critical analysis of the research, thesis presentation, and defense. During the semester, students write several research essays on various topics using both traditional and new information techniques.

### ENG 150 **Mythology** (3 cr.)

Prerequisite(s): ENG 110 or ENG 116

This course studies myths from different world cultures. It provides an in-depth discussion of the Hero's Journey (a basic pattern that appears in many narratives) and its principal archetypes. It also studies mythology across the arts and examines how essential it is to the study of literature, drama, film and video games.

### ENG 242 **Multicultural Literature** (3 cr.)

Prerequisite(s): ENG 110, ENG 150

This course explores what modernity and post-modernity have or have not meant to American writers whose histories and cultures are not European in origin but whose writings are steeped in European-American literary traditions. The course explores the cultural hybridism of this literature as well the unique visions of the world they have created. These funny, humorous, bitterly satirical, and downright serious (post)-modern fantasies are quintessentially American, yet also unique and peculiar to these authors' ethnic experiences. The selected works also offer an opportunity to read or re-read well established and newer American works of literature.

### ENG 245 **Introduction to Fiction Writing** (3 cr.)

Prerequisite(s): ENG 110 or ENG 116

This course provides an introduction to the study and practice of fiction writing including characterization, plot, setting, and point of view. It presents selected works of short and long fiction. The course is an opportunity for students to practice their own creative writing skills. They are required to write at least two short stories.

### ENG 246 **American Ethnic Literatures** (3 cr.)

Prerequisite(s): ENG 110 or ENG 116

This course covers prominent themes and techniques in American ethnic literatures such as Native, African, Asian, and Hispanic American literatures. Modern texts are emphasized but pre- or early 20th century classics may also be included.

### ENG 315 **Scriptwriting** (4 cr.)

Prerequisite(s): ENG 116 or ENG 245

This course covers the fundamentals of concept development, dramatic structure, and writing for a visual medium. It leads to the completion of at least one original preproduction script in screenplay format.

### ENG 340 **Creative Writing Across the Arts** (3 cr.)

Prerequisite(s): ENG 110 or ENG 116

This course focuses on the generation of creative writing in multiple genres and media, including poetry, fiction, creative non-fiction, and graphic novels. Students study and practice writing in a workshop atmosphere and engage in intensive reading of excellent writings, most of which employ interdisciplinary, cross-genre approaches that encompass painting, photography, and other visual art. Discussions of readings are followed by writing experiments designed to spark original thinking, to develop facility with writing, and to enhance understanding of the creative process. Students gain in-depth knowledge of the possibilities of creative writing and apply this experience by writing both short creative pieces and longer works.

### ENG 399 **Special Topics in English** (3 cr.)

Prerequisite(s): None

Permission of instructor required

The content of this course may change each time it is offered. It is for the purpose of offering a new or specialized course of interest to the faculty and students that is not covered by the courses in the current catalog.

## Law Courses

### LAW 115 **Introduction to Intellectual Property and Contracts** (3 cr.)

Prerequisite(s): None

The animation and computer software industries are founded upon the principle of intellectual property. This course introduces students to the social concepts and traditions that led to the idea of intellectual property. It surveys the various international legal systems governing intellectual property, giving special consideration to Title 17 and the local statutes that govern copyrights, trademarks, and patents in the United States. Students learn fundamental issues surrounding this field, such as fair use, international relations, and economics. The course also introduces students to a basic overview of contracts, including structure, traditions, and vocabulary.

## Psychology Courses

### PSY 101 **Introduction to Psychology** (3 cr.)

Prerequisite(s): None

This course introduces major topics in psychology, specifically as they relate to cognition and learning. These topics include perception, cognition, personality and social psychology, and biological aspects of behavior. Students are also introduced to human information processing, memory, problem solving, attention, perception, and imagery. Other topics covered may include mental representation and transformation, language processing, and concept formation.

### PSY 399 **Special Topics in Psychology** (3 cr.)

Prerequisite(s): None

Permission of instructor required

The content of this course may change each time it is offered. It is for the purpose of offering a new or specialized course of interest to the faculty and students that is not covered by the courses in the current catalog.

## Social Sciences Courses

### SOS 115 **Media and Ethics: A Social Science Perspective** (3 cr.)

Prerequisite(s): None

This course guides students in the ethical assessment of both the processes and outcomes of social decision-making. After an introduction to basic ethical theories, students acquire an understanding of the structure of social institutions and the process through which one makes social choices. Central to the analysis is a study of ethics as a criterion for assessment of social decision-making with emphasis on the study of particular issues of social choice. The course also provides a theoretical framework within which to spot and analyze ethical issues in the media.

## SOS 150 **Society and Technology** (3 cr.)

Prerequisite(s): None

This course draws on techniques and perspectives from the social sciences, humanities, and cultural studies to explore technology and change in the modern era. In particular, students examine how technology influences and is influenced by values and cultures in America and abroad. The course helps students recognize the range of consequences that technology in general, and information and communication technology (ICT) in particular, have when shaped and used by individuals, organizations, and society. Through readings, discussion, lectures, and written assignments, students become acquainted with current controversies related to the socio-cultural dimensions of technology in the “digital era.” While the course examines the impact of technologies—including video gaming and robotics—on the contemporary world, it also uses an historical approach to address some of the technological innovations that have most affected U.S. society in the past. The course considers how technologies are developed and sustained, and how they interact with and affect our urban culture. Specific themes likely to be addressed include technology’s impact on the private and public spheres; the body and the self in cyberspace; and the criteria used to determine a technology’s success, failure, and danger.

## SOS 180 **Race & Gender in Twenty-First Century America** (3 cr.)

Prerequisite(s): ENG 110

This course takes a close look at current debates on race, gender, and ethnicity in American society. It begins with an overview of definitions of race, gender, and ethnicity, exploring what they have meant in the past and what they mean now. Then the course examines the intersections between race, gender, and ethnicity, asking the following questions: How do race and ethnicity differ, and how are they related? What difference does race make? How are race and gender related? Where does sexual orientation fit into the discourse on gender, and how does it fit into discussions on race and ethnicity? Current debates on race, gender, and ethnicity were highlighted by the 2008 election of the first African-American president and the ever-growing prominence of women in the highest levels of American politics. Does this mean that we have entered a post-racial era? Where exactly do we stand on women and gender-related issues? What about the place of GLBT issues in the public domain? This course explores these themes and topics.

## SOS 399 **Special Topics in Social Sciences** (3 cr.)

Prerequisite(s): None

Permission of instructor required

The content of this course may change each time it is offered. It is for the purpose of offering a new or specialized course of interest to the faculty and students that is not covered by the courses in the current catalog.

# Department of Mathematics

## Mathematics Courses

### MAT 140 **Linear Algebra and Geometry** (4 cr.)

Prerequisite(s): None

The two main themes throughout the course are vector geometry and linear transformations. Topics from vector geometry include vector arithmetic, dot product, cross product, and representations of lines and planes in three-space. Linear transformations covered include rotations, reflections, shears and projections. Students study the matrix representations of linear transformations along with their derivations. The curriculum also presents affine geometry and affine transformations along with connections to computer graphics. This course also includes a review of relevant algebra and trigonometry concepts.

### MAT 150 **Calculus and Analytic Geometry I** (4 cr.)

Prerequisite(s): None

Credit may be received for MAT 150 or MAT 180, but not for both.

This course introduces the calculus of functions of a single real variable. The main topics include limits, differentiation, and integration. Limits include the graphical and intuitive computation of limits, algebraic properties of limits, and continuity of functions. Differentiation topics include techniques of differentiation, optimization, and applications to graphing. Integration includes Riemann sums, the definite integral, anti-derivatives, and the Fundamental Theorem of Calculus.

### MAT 200 **Calculus and Analytic Geometry II** (4 cr.)

Prerequisite(s): MAT 150 or MAT 180

Credit may be received for MAT 200 or MAT 230, but not for both.

This course builds on the introduction to calculus in MAT150. Topics in integration include applications of the integral in physics and geometry and techniques of integration. The course also covers sequences and series of real numbers, power series and Taylor series, and calculus of transcendental functions. Further topics may include a basic introduction to concepts in multivariable and vector calculus.

### MAT 250 **Linear Algebra** (3 cr.)

Prerequisite(s): MAT 200 or MAT 230

This course presents the mathematical foundations of linear algebra, which includes a review of basic matrix algebra and linear systems of equations as well as basics of linear transformations in Euclidean spaces, determinants, and the Gauss-Jordan Algorithm. The more substantial part of the course begins with abstract vector spaces and the study of linear independence and bases. Further topics may include orthogonality, change of basis, general theory of

linear transformations, and eigenvalues and eigenvectors. Other topics may include applications to least-squares approximations and Fourier transforms, differential equations, and computer graphics.

### **MAT 256 Introduction to Differential Equations** (3 cr.)

Prerequisite(s): MAT 200 or MAT 230

This course introduces the basic theory and applications of first and second-order linear differential equations. The course emphasizes specific techniques such as the solutions to exact and separable equations, power series solutions, special functions and the Laplace transform. Applications include RLC circuits and elementary dynamical systems, and the physics of the second order harmonic oscillator equation.

### **MAT 258 Discrete Mathematics** (3 cr.)

Prerequisite(s): MAT 200 or MAT 230

This course gives an introduction to several mathematical topics of foundational importance in the mathematical and computer sciences. Typically starting with propositional and first order logic, the course considers applications to methods of mathematical proof and reasoning. Further topics include basic set theory, number theory, enumeration, recurrence relations, mathematical induction, generating functions, and basic probability. Other topics may include graph theory, asymptotic analysis, and finite automata.

### **MAT 300 Curves and Surfaces** (3 cr.)

Prerequisite(s): MAT 250, MAT 258

This course is an introduction to parameterized polynomial curves and surfaces with a view toward applications in computer graphics. It discusses both the algebraic and constructive aspects of these topics. Algebraic aspects include vector spaces of functions, special polynomial and piecewise polynomial bases, polynomial interpolation, and polar forms. Constructive aspects include the de Casteljau algorithm and the de Boor algorithm. Other topics may include an introduction to parametric surfaces and multivariate splines.

### **MAT 340 Probability and Statistics** (3 cr.)

Prerequisite(s): MAT 200 or MAT 230, MAT 258

This course is an introduction to basic probability and statistics with an eye toward computer science and artificial intelligence. Basic topics from probability theory include sample spaces, random variables, continuous and discrete probability density functions, mean and variance, expectation, and conditional probability. Basic topics from statistics include binomial, Poisson, chi-square, and normal distributions; confidence intervals; and the Central Limit Theorem. Further topics may include fuzzy sets and fuzzy logic.

### **MAT 364 Combinatorial Game Theory** (3 cr.)

Prerequisite(s): MAT 258

Combinatorial Game Theory studies finite, two-player games in which there are no ties. Techniques from logic combinatorics and set theory are used to prove various properties of such games. Typical games include Domineering, Hackenbush, and Nim. The analysis of such games can also be used to study other more complex games like Dots and Boxes, and Go. Topics covered in this course include Conway's theory of numbers as games, impartial and partizan games, winning strategies, outcome classes and algebra of games.

### **MAT 399 Special Topics in Mathematics** (3 cr.)

Prerequisite(s): None

Requirement: Permission of instructor

The content of this course may change each time it is offered. It is for the purpose of offering a new or specialized course of interest to the faculty and students that is not covered by the courses in the current catalog.

## **Department of Physics**

### **Physics Courses**

#### **PHY 115 Introduction to Applied Math and Physics** (3 cr.)

Prerequisite(s): None

We live in a world governed by physical laws. As a result, we have become accustomed to objects' motions being in accordance with these laws. This course examines the basic physics and mathematics governing natural phenomena, such as light, weight, inertia, friction, momentum, and thrust as a practical introduction to applied math and physics. Students explore geometry, trigonometry for cyclical motions, and physical equations of motion for bodies moving under the influence of forces. With these tools, students develop a broader understanding of the impact of mathematics and physics on their daily lives.

#### **PHY 200 Motion Dynamics** (4 cr.)

Prerequisite(s): MAT 150 or MAT 180

This calculus-based course presents the fundamental principles of mechanics, including kinematics, Newtonian dynamics, work and energy, momentum, and rotational motion.

#### **PHY 200L Motion Dynamics Laboratory** (1 cr.)

Prerequisite(s): None

Concurrent Course(s): PHY 200

This course presents the concepts of PHY 200 in the laboratory. The experiments allow the student to experience the laws of basic physics involving linear motion, force,

gravitation, conservation of energy, conservation of momentum, collisions, rotational motion, and springs. Error analysis and data reduction techniques are taught and required in experimental reports.

### PHY 250 **Waves, Optics, and Thermodynamics** (4 cr.)

Prerequisite(s): MAT 200 or MAT 230, PHY 200

This calculus-based course presents the fundamentals of fluid dynamics, oscillations, waves, geometric optics, and thermodynamics.

### PHY 250L **Waves, Optics, and Thermodynamics Lab** (1 cr.)

Prerequisite(s): None

Concurrent Course(s): PHY 250

This course presents the concepts of PHY 250 in the laboratory. The experiments allow students to experience the physical laws involving oscillations, waves, sound, interference, lift, drag, heat, optics, and entropy. Extended error analysis and statistics are taught and required in experimental reports.

### PHY 300 **Advanced Mechanics** (3 cr.)

Prerequisite(s): MAT 200 or MAT 230, CS 250, MAT 250, PHY 250

This course covers the physics behind more complex mechanical interactions as well as the numerical techniques required to approximate the systems for simulations. A thorough analysis of mechanical systems through energy analysis provides the basis for the understanding of linear and rotational systems. The combination of theoretical physics and numerical methods provide students with the background for simulating physical systems with limited computational power. Topics covered include Lagrangian Dynamics, Hamilton's Equations, dynamics of rigid bodies, motion in non-inertial reference frames, the use of the inertia tensor, collision resolution, and numerical techniques including methods of approximation.

### PHY 399 **Special Topics in Physics** (3 cr.)

Prerequisite(s): None

Prerequisite: Permission of Instructor

The content of this course may change each time it is offered. It is for the purpose of offering a new or specialized course of interest to the faculty and students that is not covered by the courses in the current catalog.



# Standards of Progress

## Semester Credit Hour

The semester credit hour is the basic unit of credit awarded at the Institute. The academic value of each course is stated in semester credits. DigiPen Europe-Bilbao defines a semester credit hour as follows.

Over any semester, one semester credit hour of academic credit equals:

- at least 15 hours of classroom contact, or
- at least 22.5 hours of supervised laboratory time, or
- at least 45 hours of internship experience.

In addition, each semester credit also assumes:

- a minimum of 30 hours over the semester for external preparation, project work, or homework by the student, except for independent studies or internship experience.

A classroom contact hour is 53 minutes in length.

Whenever “semester hour” is used in the Course Catalog, it is synonymous with “semester credit hour” (SCH) and does not always represent “hours per week in class.” Students taking courses over the summer should be aware that the total number of hours for a course is compressed into fewer weeks, but is not reduced. The number of courses that a student is recommended to take during the shorter summer semester is therefore fewer than the fall or spring semesters.

## Grade Level Progression

| CREDIT AMOUNT                | CLASS STANDING           |
|------------------------------|--------------------------|
| less than 30 earned credits* | Freshman class standing  |
| 30 earned credits or greater | Sophomore class standing |
| 60 earned credits or greater | Junior class standing    |
| 90 earned credits or greater | Senior class standing    |

\*an earned credit is defined as a credit that is awarded a passing final grade and counts towards the program in which the student is currently enrolled.

## Grading System

The following grading system is in use and, except where otherwise specified, applies to both examinations and homework assignments. The weight of a final examination grade is a matter individually determined by each instructor. See the following *Grade Point Average* section for additional information.

| GRADE | DESCRIPTION | QUALITY POINTS | EXPLANATION OF MINIMUM GRADE REQUIREMENT |
|-------|-------------|----------------|--|
| A     | Excellent   | 4.0            |  |
| A-    | Excellent   | 3.7            |  |

| GRADE | DESCRIPTION | QUALITY POINTS | EXPLANATION OF MINIMUM GRADE REQUIREMENT                         |
|-------|-------------|----------------|--|
| B+    | Good        | 3.3            |  |
| B     | Good        | 3.0            |  |
| B-    | Good        | 2.7            |  |
| C+    | Fair        | 2.3            |  |
| C     | Fair        | 2.0            |  |
| *C-   | Fair        | 1.7            | minimum grade required to earn credit for undergraduate students |
| D     | Failure     | 1.0            |  |
| F     | Failure     | 0              |  |

\*A grade “C-” (for 1.7 quality points) or better is required to earn credit for undergraduate-level classes.

## Withdrawal Information and Status

The following applies to both undergraduate and graduate students:

| STATUS | DESCRIPTION              |
|--------|--------------------------|
| AU     | Audit                    |
| E      | Expulsion                |
| I      | Incomplete               |
| IP     | In Progress              |
| NP     | No Pass                  |
| P      | Pass                     |
| S      | Suspension               |
| W      | Withdrawal               |
| WF     | Withdrawal Failure       |
| WI     | Withdrawal Investigation |
| HW     | Hardship Withdrawal      |
| EW     | Emergency Withdrawal     |

### AU—AUDIT

“AU” indicates that the student attended the course without expectation of receiving credit or a grade.

### E—EXPULSION

“E” indicates a permanent separation from the Institute, with no possibility of return. Initiated by the Institute as a punitive action.

### I—INCOMPLETE

“I” indicates when students have completed most of the required work for a course and submitted passing work, but circumstances beyond their control prohibit them from taking the final exam or completing coursework by the final due date. The “I” grade is included in the satisfactory pace calculation.

### IP—IN PROGRESS

“IP” indicates that the grade was not available from the instructor at the time the transcript was printed.

### NP—NO PASS

“NP” is given for courses where a letter grade is not required. “NP” means that the student has not successfully completed the requirements of the course, but there is no impact on the GPA.

### P—PASS

“P” is given for courses where a letter grade is not required. Some examples of this are internship, seminar, and thesis courses..

### S—SUSPENSION

“S” indicates a temporary separation, for a specific period of time (usually one calendar year), from the Institute with the option of a possible future return. Initiated by the Institute as a punitive action.

- In order for student to return at the end of the suspension, the student must reapply. This does not result in an automatic reinstatement.

### W—WITHDRAWAL

“W” indicates removal of a student from a course or the Institute, which may or may not allow for future readmission.

- Withdrawal from a course or courses equates to the grade of “W”.
  - » Does not affect cumulative GPA.
- Withdrawal from the Institute equates to the status of “W”.

### WF—WITHDRAWAL FAIL

“WF” indicates a removal of student from a course or the Institute, which may or may not allow for future readmission.

- Withdrawal from a course (after deadline for “W”), equates to the grade of “WF”.
  - » This affects the cumulative GPA just like an “F” grade would.
- Withdrawal from the Institute (after deadline for “W”) equates to the status of “WF”.

### WI—WITHDRAWAL INVESTIGATION

“WI” indicates a withdrawal done by the student in an attempt to avoid investigation for a possible offense.

- This status documents that the student is under investigation but has chosen to withdraw of their own volition, in an attempt to avoid possible consequences.
- Once investigation is complete, this status and pertinent grades will be changed according to the outcome.

### HW—HARDSHIP WITHDRAWAL

“HW” indicates removal of a student from a course or the Institute, due to a situation beyond their control, involving a documented significant illness or life altering event that prohibits the student from carrying on with their studies.

- Student will receive a W grade, which does not affect cumulative GPA.

### EW—EMERGENCY WITHDRAWAL

“EW” indicates removal of a student from a course or the Institute, due to hardship withdrawal caused directly by a documented COVID situation.

- Student will receive a W grade, which does not affect cumulative GPA.

## Withdrawal Policy Deadlines

*(grades assigned for withdrawal from courses during semester)*

| WITHDRAWAL FROM COURSES DURING THE SEMESTER | GRADE ASSIGNED ON TRANSCRIPT |
|---|------------------------------|
| Within 2 weeks (Add/Drop)                   | No grades recorded           |
| From 15th day to 8th week                   | “W” grade                    |
| After 8th week                              | “F” grade                    |

## Assessment Process

DigiPen has an assessment process to evaluate the defined student learning outcomes of the education and training and established competencies. This process includes a combination of methods such as grading, portfolio assessment, projects, internships, and criterion-referenced testing based on developed and appropriate rubrics.

Each course syllabus contains clearly defined course objectives and learning outcomes, course requirements, grading policy and allotment, and grading distribution. Students are made aware of the grading policy, performance standards, and grading distribution at the beginning of each course. The faculty measures the student’s achievement of the stated course objectives and learning outcomes based on the grading policy published in the course syllabus.

## Grade Reports

Reports of the final grade in each course will be made available online to students soon after the close of each semester. However, grade reports may be withheld from students who have delinquent accounts with the Administration Office, Facilities, or the Library.

## Grade Point Average

The academic standing of each student is determined on the basis of the grade point average (GPA) earned each semester. The GPA is determined by using the quality points assigned to each course grade a student earns. The quality point value for each grade earned during a semester is multiplied by the number of credit hours assigned to that course as listed elsewhere in this catalog. The sum of these points is the total number of quality points earned during the semester. This sum is divided by the number of credit hours attempted (hours from courses with grades of “A” [or 4.0 quality points] through “F” [or 0 quality points]) to obtain the GPA.



The cumulative GPA consists of all courses completed at DigiPen. If multiple attempts were made for the same course, only the grade earned in the most recently-completed attempt is calculated in the cumulative GPA. Course grades of "AU," "I," "W," "P," and "NP" are non-punitive grades, so they are not calculated in the overall GPA since they carry no quality points.

The following example demonstrates how GPA is calculated:

| COURSE        | CREDITS   | GRADE | POINTS         |
|---------------|-----------|-------|----------------|
| CS 100        | 4         | A     | 16.0 (4 x 4.0) |
| MAT 140       | 4         | A-    | 14.8 (4 x 3.7) |
| CS 105        | 3         | B     | 9.0 (3 x 3.0)  |
| ENG 110       | 3         | D     | 3.0 (3 x 1.0)  |
| CS 120        | 4         | B+    | 13.2 (4 x 3.3) |
| <b>Totals</b> | <b>18</b> |       | <b>56</b>      |

Total grade points divided by total credits equals the cumulative grade point average. Therefore, the grade point average for the above example is 56 divided by 18 for a **3.11 GPA**.

## Satisfactory Academic Progress

### MINIMUM GPA REQUIREMENT

While enrolled at DigiPen, students are required to maintain satisfactory academic progress (SAP) to remain in good standing in their program. SAP is based on the cumulative grade point average of all courses taken at DigiPen Institute of Technology to meet the qualitative standard. A student must maintain a cumulative GPA of 2.0 or better to maintain SAP. Failure to meet this standard will place a student on Academic Warning and may lead to the student's Administrative Withdrawal from the Institute.

### FAILING TO MEET MINIMUM GPA REQUIREMENT

Students who fail to maintain the required minimum cumulative GPA will be placed on Academic Warning the semester following the one where their cumulative GPA falls below the minimum required. Students are removed from Academic Warning as soon as their cumulative GPA is above 2.0. Students who earn a 2.0 during their probationary semester but do not raise their cumulative GPA above the minimum requirement will continue on Academic Warning until their cumulative average reaches 2.0. While on Academic Warning, students will be restricted to a maximum course load of 15 credits. These students must achieve a GPA of 2.0 or higher during their probationary semester. Failure to satisfy these requirements will result in administrative withdrawal, and withdrawn students must wait 12 months before they can apply for readmission.

### FULL-TIME STATUS

Full-time enrollment for undergraduate students is 12 or more credits per semester.

### QUANTITATIVE STANDARD (PACE)

All students must successfully complete two-thirds (67%) of total credits hours attempted (known as Pace: Percent of Attempted Credits Earned). Example, a student who has attempted 45 credit hours must have successfully completed

at least 30 credit hours:  $30/45 = 0.667$  or 67%. All attempted credits count toward PACE.

### MAXIMUM TIME FRAME

Undergraduate students may attempt no more than 150% of the maximum credits required to complete an academic program.

## Passing Classes and Graduation

All students must have a cumulative GPA of at least 2.0 to graduate.

## Repeating Courses

A student may attempt a course up to three times in an effort to earn a passing grade. If a student fails to pass the course within three attempts, the student will be placed on academic warning. Upon failing the fourth attempt of a course, the student will be academically withdrawn. Withdrawals from courses are considered attempts. All grades and attempted courses remain on a student's transcript. However, only the grade earned in the most recent attempt of a course is calculated in a student's Cumulative GPA.

- Once a student passes a course, they may not repeat the course again.
- Students in degree plans prior to Fall 2019 catalog year, may not withdraw and reapply for another catalog year in an attempt to apply this policy to their GPA.

## Course Overload

During a given semester, students may be enrolled in a maximum of 21 credits. Students seeking special permission to take more than the maximum credits in a given semester should use the Override Form and get approval from their academic advisor.

## Attendance Policy

Attendance is recognized as an important component to the learning process in higher education. As an attendance-taking institution, DigiPen Institute of Technology is required, by Title IV federal regulations and the ACCSC accrediting body, to publish and enforce a policy of acceptable student attendance. The attendance policy must be consistently applied and enforced. Student class attendance is accurately recorded to ensure that all awarded federal aid monies are used for educational purposes, and to ensure that the required knowledge, skills, and competencies can be reasonably achieved.

- Students are expected to attend all classes in a timely manner.
- The instructor must list class tardy/absent guidelines in the syllabus, and mark student attendance accordingly.
- Students absent from all classes for a period of 14 consecutive days may be withdrawn from the Institute as of their last day of attendance.

- » Unexcused Absences from any one class for 14 consecutive days may result in administrative withdrawal from that class, as of the last day of attendance.
- » Consecutive absences are counted before and after holidays, as one continuous period. Holiday does not constitute a restart.
- Absences (unexcused/excused) should not exceed 20% of total required class sessions during any semester.
  - » Absences of more than 20% will require advising by the Academic Advisor or Disability Support Services (DSS), and may be required by the Instructor.

## Excused Absence Policy

- The Institute understands that there are circumstances which may substantiate reasons for absences.
- Excused absences cannot be approved for more than 14 consecutive calendar days without going through an appeal process.
- Students who miss a significant amount of their classes, may need to discuss alternative options (e.g. Incomplete, Course Withdrawal, Hardship Withdrawal) with the instructor and/or Academic Advisor, if completing course outcomes is no longer attainable.
- Students missing class due to complications from a disability, or due to an illness or situation beyond the student's control, must inform the instructor as soon as reasonably possible.
  - » It is up to the Instructor's discretion to excuse the student and to require further written evidence substantiating the reason for the absence.
    - This decision must be documented and maintained by the instructor for compliance with regulatory requirements.
  - » It is strongly suggested that instructors contact DSS with questions related to accommodations and excused absence requests for documented disabilities.
  - » Flexibility in attendance does not mean that course outcomes are waived or altered.
  - » Attendance leniency accommodations may be implemented differently in each course, depending on how significant class attendance is considered, as a part of participatory learning in a particular class.

## Withdrawing from Individual Courses

To withdraw from individual courses, a student must complete the appropriate withdrawal form, either in person or online..

## Withdrawing from the Institute

To formally withdraw from the Institute, a student must submit a completed Withdrawal Notice Form to the Office of the Administration. Withdrawal Notice Forms may be obtained from the Office of the Administration.

Upon withdrawing from DigiPen, the student shall immediately return all materials in the student's possession relating to the program, whether created by the student or other students or provided by the Institute.

## Hardship Withdrawal

Students may seek a hardship withdrawal when one of three conditions prevents a student from completing all courses: death of a close family member, severe/terminal illness in the family, or injury or illness that incapacitates the student. Hardship withdrawals may be sought any time after the last date to withdraw from classes, as listed in the Academic Calendar, but not after all materials for a course have been completed (i.e., after submitting the final exam or final assignment). The Hardship Withdrawal Form, a personal statement, and appropriate documentation (i.e., death certificate, obituary, letter from a state-licensed physician or mental health professional) must be provided to support all requests to the Administration Office. Once all documents are received, the Administrator will forward the documents to the Hardship Withdrawal Review Committee.

If the Committee grants a hardship withdrawal, the student will receive "W" grades in all approved courses and is ineligible to receive a grade or an incomplete in any class in that semester. The student will be withdrawn from DigiPen Europe-Bilbao, effective the student's last day of attendance. Regular refund policies apply. Students seeking readmission must abide by DigiPen's readmission policy

## Dean's Honor List Requirements

Prepared at the end of each fall and spring semester, the Dean's Honor List officially recognizes and commends students whose semester grades indicate distinguished academic accomplishment. Both the quality and quantity of work done are considered.

Students must meet the following qualifications to be a recipient of this honor:

1. Students must be matriculated.
2. Students must be registered full-time in credit-bearing courses during the fall or spring semester.
3. Full-time students must complete 12 or more credits in one semester.
4. Only passing grades (4.0 [or "A"], 3.0 [or "B"], and 2.0 [or "C"], in credit-bearing courses are counted for eligibility.
5. No failing grades: a grade of "D" (or 1.0 quality points), and "F" (or 0 quality points) in any course makes the student ineligible, regardless of other grades.
6. Minimum cumulative GPA of 3.5 is required.

7. Any courses that do not count towards the degree are excluded.
8. AP and Internship credits are excluded.
9. Pass/Fail credits are NOT to be counted when calculating qualifying credits.
10. "Incomplete" grades will be evaluated after they are made up. The student must have qualified for the Dean's Honor List before and after the "Incomplete" grade was made up.

The student's cumulative grade point average is not considered; only the grade point average for that particular semester is relevant.

## Grade Changes and Grade Appeals

Only the faculty member who administered the grade may make grade changes. In cases where the faculty is not available to consider a grade change, the Department Chair may make such a change.

Grade appeals must be made within 14 days of final grades being issued. Using the Grade Appeal Form, appeals are made in writing to the course instructor or the department chair if the instructor is unavailable. Students may appeal to the Department Chair and then the Dean of Faculty with the Executive Director if a satisfactory resolution is not achieved.

## Process for Grievances and Appeals

### CONCERNS OVER ACADEMIC STANDING

Students who would like to file an appeal against a decision regarding their academic standing in a particular course should discuss the matter with their instructor. If a satisfactory resolution is unattainable, students may file an appeal with the Department Chair for that course. If the resultant solution is still unsatisfactory, then students may file an appeal with the Dean of Faculty. Students may appeal grades and review exams no later than two weeks after grade reports are issued. The Institute reserves the right to destroy any examination papers after the two-week appeal period. However, academic records will be kept indefinitely.

### APPEAL FOR REFUND OF TUITION

Students who would like to file an appeal against a decision regarding their tuition refund shall file a written request to the Executive General. If dissatisfied with the decision of the Executive General, students may file a second appeal with the Chief Operating Officer – International. If they are still dissatisfied, students may appeal to the President of the Institute.

### OTHER DISPUTES

Students who feel that they have any other type of dispute with the Institute should file a complaint with the relevant

Department Chair or supervisor. A copy of this complaint shall be given to those involved with the dispute. If the student is not satisfied with the decision of the Department Chair or supervisor, a second complaint may be submitted to the Chief Operating Officer—International. If the student is still dissatisfied with the decision, they may appeal to the President of the Institute.

## Transcripts

If a student's financial obligation is not fulfilled, the Institute is authorized to do the following until the owed monies are paid: withhold the routine release of the student's academic records or any information based upon the records, and withhold the issue of the student's transcripts. Students with questions may contact the Office of the Administration at 34- 94 636 51 63. To request an official transcript, students should complete a Transcript Request Form (available online or from the front office) and either mail, scan, or fax it to the Office of the Administration. Requests are usually processed within three business days. Grade reports can be viewed or printed anytime as unofficial transcripts by using the Student Information System (SIS) online

## Exams

All students are required to be in attendance at the times scheduled by the Institute for final exams. Instructors are not required to make arrangements for individuals to take final exams at a different time than the rest of the class. Should a student miss an exam, it is the student's responsibility to notify the instructor in writing within 24 hours of the missed exam. In the event that a student fails to provide such notification to an instructor, or if the Institute does not find the reasons for missing an exam justifiable, the student will be given a failing grade for the exam(s). If a student misses a final exam and notifies the instructor within 24 hours of the missed exam, the Office of the Administration shall review the individual circumstances. Only documented emergencies will be considered acceptable reasons for missing exams. Exam retakes shall be allowed at the sole discretion of the Office of the Administration and Department Chair. Examples of unacceptable reasons for missing an exam include the demands of a time-consuming job, the desire to leave town for a vacation or family gathering, the desire to do well on tests in other courses, etc.

A retaken exam shall be different than the original one taken by the other students of the class, and the timing of it shall be at the sole discretion of the individual instructor. In all cases, retakes shall be administered no later than one week after the original, missed exam.

# General Policies

# General Information

## Institutional Mission

DigiPen Institute of Technology Europe-Bilbao provides exemplary education and furthers research and innovation in science, engineering, arts, digital media, and interactive computer technologies. Building on a foundation of academics, applied learning, industry knowledge, and multi-disciplinary team-based collaborations, we inspire our students to pursue lifelong learning as well as scientific and creative exploration, and empower them to become leaders and originators on a global level.

## Notice of Non-Discrimination

DigiPen Institute of Technology Europe-Bilbao is committed to maintaining a diverse community in an atmosphere of mutual respect for and appreciation of differences.

DigiPen Institute of Technology Europe-Bilbao does not discriminate in its educational and employment policies on the basis of race, color, creed, religion, national/ethnic origin, sex, sexual orientation, or age.

## History of DigiPen Institute of Technology

DigiPen was founded in 1988 as a computer simulation and animation company based in Vancouver, British Columbia, Canada. As the demand for production work increased, DigiPen faced difficulty finding qualified personnel, and in 1990, it began offering a dedicated training program in 3D computer animation to meet this growing need.

That same year, DigiPen approached Nintendo of America to jointly establish a post-secondary program in video game programming. The result of this collaborative effort was the DigiPen Applied Computer Graphics School, which in 1994, officially accepted its first class of video game programming students to its Vancouver campus for the two-year Diploma in the Art and Science of 2D and 3D Video Game Programming. In 1995, DigiPen implemented a revised two-year 3D computer animation program and graduated student cohorts over each of the following four years.

Around this time, the video game industry underwent a paradigm shift from dealing primarily with 2D graphics and gameplay to full 3D worlds that players could freely explore. As these worlds became more sophisticated, so did the task of programming, designing, and animating them. In anticipation of this change, DigiPen developed a four-year bachelor's degree in video game programming (the Bachelor of Science in Computer Science in Real-Time Interactive Simulation) that would prepare students for the challenges of creating complex 3D game and simulation software.

In 1996, the Washington State Higher Education Coordinating Board (HECB) granted DigiPen the authorization to award

both Associate and Bachelor of Science degrees in Real-Time Interactive Simulation. Two years later, in 1998, DigiPen Institute of Technology opened its campus in Redmond, Washington, USA. In 1999, DigiPen began offering the Associate of Applied Arts in 3D Computer Animation. At this time, DigiPen phased out its educational activities in Canada, moving all operations to its Redmond campus. On July 22, 2000, DigiPen held its first commencement ceremony, where it awarded Associate of Science and Bachelor of Science degrees.

In 2002, DigiPen received accreditation from the Accrediting Commission of Career Schools and Colleges (ACCSC). In 2004, DigiPen began offering three new degrees: the Bachelor of Science in Computer Engineering, the Master of Science in Computer Science\*, and the Bachelor of Fine Arts in Digital Art and Animation (previously Bachelor of Fine Arts in Production Animation). In 2008, DigiPen added two more degree programs: the Bachelor of Science in Computer Science and Game Design (previously Bachelor of Science in Game Design) and the Bachelor of Arts in Game Design.

Also in 2008, DigiPen partnered with Singapore's Economic Development Board to open its first international branch campus, offering the following degrees: the Bachelor of Science in Computer Science in Real-Time Interactive Simulation (previously Bachelor of Science in Real-Time Interactive Simulation), the Bachelor of Science in Computer Science and Game Design, the Bachelor of Fine Arts in Digital Art and Animation, and the Bachelor of Arts in Game Design. In 2010, DigiPen announced plans to open its first European campus in Bilbao, Spain\*\*.

That same year, DigiPen relocated its U.S. campus to its current location at 9931 Willows Road Northeast in Redmond, Washington.

On September 26, 2011, DigiPen launched DigiPen Institute of Technology Europe-Bilbao offering two bachelor's degree programs: the Bachelor of Science in Computer Science in Real-Time Interactive Simulation and the Bachelor of Fine Arts in Digital Art and Animation.

On October 11, 2011, DigiPen (Singapore) was granted accreditation by ACCSC as a branch campus of the main school located in Redmond, Washington, USA.

In 2012, DigiPen added three new degree programs: the Bachelor of Arts in Music and Sound Design, the Bachelor of Science in Computer Science and Digital Audio (previously Bachelor of Science in Engineering and Sound Design), and the Master of Fine Arts in Digital Arts.

In 2014, DigiPen added a new degree program: the Bachelor of Science in Computer Science. In that same year, DigiPen (Singapore) received approval for the Bachelor of Engineering (with Honours) in Systems Engineering (ElectroMechanical Systems) degree program.

In 2015, DigiPen's Bachelor of Science in Computer Engineering degree program was accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org).

In 2015, DigiPen (Singapore) was granted approval to move from Pixel Building, 10 Central Exchange Green to SIT@SP Building, 510 Dover Road.

In 2017, DigiPen's Bachelor of Science in Computer Science in Real-Time Interactive Simulation degree program was accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org).

In 2018, DigiPen added a new program: the BS in Computer Science in Machine Learning degree program. The first cohort is scheduled to start in Fall 2019.

In 2018, B.Eng. in Systems Engineering (ElectroMechanical Systems) Program sought the provisional accreditation by the Engineering Accreditation Board (EAB) of IES for a term of three years for students entering the program from Academic Year 2014/2015. Full accreditation will be sought in Academic Year 2020/2021 when the program has graduated two batches of students.

*\*DigiPen began offering the MS in Computer Science program in 2004 before ACCSC expanded its scope of recognition by the United States Department of Education to grant approval for master's degree programs. ACCSC granted approval for this degree in 2006.*

## About DigiPen Europe-Bilbao's Facilities

DigiPen Europe-Bilbao has modern facilities located at Beta1 – Ribera de Zorrozaurre, 2, in Bilbao. The building houses 17 rooms over 3 floors. The rooms have different configurations and sizes and are equipped with audio-visual media (projectors, microphones, computers, Internet access, and Wi-Fi connection).

Weekly student access to the DigiPen Europe-Bilbao campus typically spans from 9 a.m. to 8 p.m. Monday through Friday, and from 10 a.m. to 6 p.m. on Saturday. Core office hours for administration staff are from 9 a.m. to 8 p.m., Monday through Friday, and from 10 a.m. to 6 p.m. on Saturday.

Major equipment items include microphones and LCD projection systems in many of the classrooms. The computer workstations provided at DigiPen are selected to meet or exceed the hardware specifications for required educational software. All computers are on internal network and have access to printers, servers, and archival media. The Institute upgrades the computer equipment on a regular basis.

Classrooms vary in size from an auditorium accommodating up to 100 students to labs for 44 students and small classrooms for 12 students. Students specializing as game programmers and game artists apply and integrate the academic theory from their respective disciplines into projects of varying genres.

## Description of the Library Facilities and Internet Access

### LIBRARY SERVICES

The Institute's library aims to support the Institute's curriculum, students, and faculty. Students have access to a variety of resources like reference books relevant to their program of study. The library also checks out other equipment like video cameras and console controllers..

### INTERNET ACCESS

Internet access is a regulated service and is provided for students free of charge. Students may lose this privilege if they do not abide by the *Student Network and Internet Usage Policy*.

## Student Network and Internet Usage Policy

### GENERAL POLICIES

The Institute's computer and network resources are provided exclusively for educational purposes. To ensure that these resources remain available for legitimate academic usage, the Institute requires compliance with the following policies:

- Students are required to respect Institute property. Students may not abuse, damage, vandalize, steal, or in any way alter Institute property in any manner that would prevent another student from using it.
- Students may not install software, drivers, patches, or any other program on Institute computers. Additional software may be requested through an instructor; it is the sole responsibility of the Institute to decide if, how, and when any software is installed.
- Students are responsible for their own data and are encouraged to protect their work by utilizing the resources provided by the Institute and by using a personal storage device such as a flash drive or laptop computer.
- Students may not attempt to access another student's information or display any material that may offend another student.
- Students may not copy, publish, or make available any Institute property without written consent. This includes, but is not limited to, storing materials on any unauthorized network service or personal server.
- Commercial use of the Institute's computer or network resources is expressly and strictly forbidden. Any commercial activity will result in legal action against the offender.

The Institute reserves the right to monitor, log, and inspect any data stored on any Institute computer or transmitted over the Institute network without restriction or limitation in order to ensure compliance with the above policies. Students found to be in violation of these policies may be restricted from the Institute's network and subject to disciplinary action.



# Internet Filter Policy

Internet access through DigiPen's network is filtered to ensure that students are better able to access information and materials related to their education. All internet traffic from within DigiPen's network, including labs, classrooms, and administrative offices, are sent through a system of proxies, filters, and analyzers to protect school resources from outside disruption, prevent network abuse, and prioritize legitimate educational usage. For questions or concerns about this policy, or to report a problem with internet access, contact the IT staff by email at [helpdesk@digipen.edu](mailto:helpdesk@digipen.edu).

## COPYRIGHT INFRINGEMENT AND PEER-TO-PEER FILE SHARING

DigiPen prohibits copyright infringement in any form, including the illegal downloading and uploading of copyrighted works through peer-to-peer file sharing as defined by Title 17 of the United States Code.

Copyright infringement may result in civil and criminal penalties, including damages of up to \$150,000 per infringed work, imprisonment of up to five years, and fines of up to \$250,000 per offense. For more information, please see the web site of the U.S. Copyright Office at [copyright.gov](http://copyright.gov), especially the FZQs at [copyright.gov/help/faq](http://copyright.gov/help/faq).

In addition to the civil and criminal penalties outlined above, students who engage in illegal downloading or unauthorized distribution of copyrighted materials using DigiPen's network will also be referred to DigiPen's Discipline Committee and be subject to disciplinary sanctions, up to and including expulsion from the Institute, under the Regulation of Conduct and Disciplinary Procedures.

## Applying to DigiPen

### Visiting DigiPen Europe-Bilbao

The Institute offers regular Preview Days for the general public. Anyone interested in finding out more about DigiPen Institute of Technology Europe-Bilbao and its programs is welcome to attend. For information on dates and times for these information sessions, please visit our website at [digipen.es](http://digipen.es) or email [admissions@digipen.es](mailto:admissions@digipen.es).

Visitors interested in learning about the Institute's admission requirements, application process, and degree programs are encouraged to schedule a one-on-one meeting and school tour with an admissions representative. To schedule an appointment, please contact the Office of Admissions at [admissions@digipen.es](mailto:admissions@digipen.es) at least one week before your intended visit.

## Undergraduate Application Process

DigiPen Institute of Technology Europe-Bilbao accepts and evaluates applications as they are submitted throughout the year. We encourage you to complete your application and submit the required materials within four weeks of starting the

application process. Please contact the Office of Admissions if you need more time to complete your application.

Applicants should submit all application materials within four weeks of their initial application submission. Applicants who need additional time should request an extension, after submitting their initial application, by contacting the Office of Admissions at [admissions@digipen.es](mailto:admissions@digipen.es). Except where noted, all undergraduate applicants must submit the following for consideration:

1. DigiPen Institute of Technology Europe-Bilbao's Online Application for Admission. This application form is available at: [management.digipen.edu/es-srs-app/ApplicationMenu.aspx](http://management.digipen.edu/es-srs-app/ApplicationMenu.aspx).
2. A 60€ application fee.
3. Certified-true copies of transcripts from all high schools or secondary/post-secondary institutions attended. Applicants must have completed at least a high school diploma or recognized equivalency certificate. If the documents are written in a language other than English or Spanish, applicants must submit certified-true copies of both the original document and a literal English translation. Please note that applicants should not convert or interpret their grades in any way when providing this translation. As it may take some time to certify and send all of the required materials by mail, please request official transcripts and records from your current and previous educational institutions as soon as possible.
4. Application Essay. Please see the Application Essay section below for the requirements and recommendations about completing this important component of the application.
5. Letters of recommendation (optional). Two letters of recommendation from individuals familiar with the applicant's academic background and/or work ethic, e.g., an instructor, guidance counselor, or employer. Recommendation letters from family members will not be considered. Each letter MUST be sealed, signed, and dated by the author, and each must contain a contact phone number. Please download the recommendation letter templates online at [management.digipen.edu/es-srs-app/](http://management.digipen.edu/es-srs-app/) or contact the Office of Admissions at 946365163 for copies to be mailed to you.
6. Official scores for the EVAU. Applicants from outside of Spain may submit scores for the SAT I and should contact the Office of Admissions.
7. Proof of Proficiency in the English Language if English is not the Applicant's first language. See below for further details.
8. Other official documentation (when applicable). This includes, but is not limited to, SAT scores, certified transcripts from all institutions of tertiary education (e.g., university transcripts), and other information as requested by the Office of Admissions.

9. Art portfolio. This is only required of applicants to the BFA in Digital Art and Animation degree program. Please see the Portfolio section below for complete details about this important component of the application.
10. Applicants should not submit electronic games or modifications, as the Office of Admissions will not install any of these.

### APPLICATION ESSAYS

Your application essay is an important part of the application for admission to DigiPen Institute of Technology Europe-Bilbao. What you write will help us find out information about you that is not apparent from your application or transcripts.

### TOPICS

Reasons for Applying: This section is required for ALL undergraduate applicants, regardless of the program to which they are applying.

Obtaining a degree from DigiPen will prepare you to be a professional software engineer/game programmer (BS in Computer Science in Real-Time Interactive Simulation) or digital artist (BFA in Digital Art and Animation). Write an essay that conveys what your chosen profession means to you and why you want to devote your life to it. Also state why you think you are ready to enroll at such a challenging school, why you think DigiPen is a good fit for you, and what you have done (and what are you doing now) to prepare yourself to succeed at DigiPen.

Spelling, grammar, and sentence structure are all considered. Proofread your essay carefully.

Optional Essay: Applicants should use this optional essay to explain any unusual circumstances or situations that they think may have an impact on their application.

### SUBMISSION

Applicants may choose to type the answers to the application essays directly into the online application (in which case, there is an electronic signature and date stamp) or to mail a hardcopy to the Institute's Office of Admissions, or email a copy to [admissions@digipen.es](mailto:admissions@digipen.es) where it will be added to the applicant's file. Those who opt for online submission of the application essays should be sure to have their answers drafted and prepared before beginning the online application.

### FORMATTING FOR PAPER SUBMISSION

Please adhere to the following requirements if submitting the application essay in hardcopy format:

- Applicant's name and program to which the applicant is applying should be printed at the top of each page
- Each page should be typed and double-spaced.
- The completed application essay(s) should be signed and dated on the last page.

### MATHEMATICS REQUIREMENTS FOR BSCS RTIS

#### APPLICANTS:

In addition to meeting the regular admissions requirements, all applicants to DigiPen Europe-Bilbao's BS in Computer Science in Real-Time Interactive Simulation program should have completed high school with a strong background in

mathematics, including a minimum of algebra, geometry, and (when possible) calculus. Relevant courses in physics, chemistry, and computer science will also be considered in the evaluation process.

### MATH ASSESSMENT

Applicants to the BS in Computer Science in Real-Time Interactive Simulation program must demonstrate (through grades, exam results, and coursework) sufficient knowledge of a number of topics in mathematics to be considered for admission. Additionally, ALL candidates will be required to take DigiPen Europe-Bilbao's Internal Math Assessment which covers various topics in algebra, geometry, trigonometry, and pre-calculus. Satisfactory performance on the math assessment, combined with other strong application materials, may improve an applicant's chances of admission.

## Art Portfolio

Applicants to the BFA in Digital Art and Animation degree program are required to submit an art portfolio that showcases the applicant's best and most recent work. This portfolio must contain between 10-15 samples of artwork created by the applicant. If necessary, DigiPen may request more samples for review.

### THE PORTFOLIO SHOULD INCLUDE:

**Prescribed Drawings from Direct Observation** – Using graphite pencil or charcoal and on quality art paper, the applicant should draw the following four Prescribed Drawings from real life (not from images or photographs):

1. Pair of shoes
2. Same pair of shoes as above but from a different perspective (e.g. shoes drawn from the back) or a different orientation (e.g. shoes turned upside down)
3. Interior space, such as a kitchen or bedroom
4. Self-portrait

On the corner of the page for each of these drawings, please write the date created and length of time spent on the drawing.

The primary objective of these four Prescribed Drawings is for the applicant to demonstrate foundational drawing skills. The applicant should focus on drawing realistically and accurately, and should NOT apply any artistic style (e.g. cartooning) to these four Prescribed Drawings.

**Miscellaneous Art Samples** - The remaining 6-11 pieces should demonstrate an applicant's current range, skill, and process. These personal works may include animations, figure/animal studies, color studies, original character designs, architectural renderings, landscape studies, sculptures, and paintings. The submitted work should not contain illustrations copied directly from manga, animé, animations, paintings, or photographs (cited master copies are acceptable).



## SUBMISSION GUIDELINES

All BFA applicants should submit a physical portfolio that adheres to the following guidelines:

- Applicants should label portfolios clearly with their full name on the front.
- All artwork should be labeled with the date of completion and medium used.
- Portfolios will not be returned. However, we will accept color copies, photocopies, slides, photographs, or work contained on CDs.
- Applicants who submit hard copies of artwork should place their portfolios in A4-sized binders.
- Applicants should submit copies of work only as the portfolios will not be returned.

## Proof of Proficiency in the English Language

Non-native English speakers must provide proof of English proficiency in one of the following ways:

- A minimum Test of English as a Foreign Language (TOEFL) score of 550 (paper exam), 213 (computer exam) or 80 (iBT — Internet-based Test). TOEFL code: 6750.
- A minimum International English Language Testing System (IELTS) score of 6.5 or higher. ([www.ielts.org](http://www.ielts.org)).
- A minimum Cambridge English: Advanced (also known as a Certificate in Advanced English or CAE) score of C1 or higher.
- Obtain a successful score on DigiPen Europe-Bilbao's internal English Assessment.
- Completion of four years of high school at an English-speaking school, or an International School where the primary language of instruction is English.
- Completion of a post-secondary degree in the United States at an English-speaking school, or an International School where the primary language of instruction is English.
- DigiPen Europe-Bilbao may accept other proof of English proficiency, such as through the submission of internationally recognized standardized English test scores, the completion of English preparatory coursework, or internal English assessments on a case-by-case basis.
- DigiPen Europe-Bilbao may use its discretion and own internal assessments in determining sufficient English proficiency for students transferring from one DigiPen campus or program to another.

## Admission/Denial to DigiPen Europe-Bilbao's Programs

DigiPen Europe-Bilbao considers every part of an applicant's materials and qualifications when evaluating an applicant for admission. Meeting the minimum standards is not a guarantee for admission. Applicants who exceed the minimum standards are more likely to be admitted.

Accepted undergraduate applicants will receive an enrollment packet via standard mail. This packet will include an official letter of acceptance, and, if applicable, a request to furnish proof of high school graduation and official scores for the Selectividad before the start of classes in the fall. Students will receive their student enrollment agreement by email. By returning the signed enrollment agreement, proof of graduation, and the enrollment fee, an applicant has confirmed enrollment.

Applicants who are accepted and enrolled are required to attend an official orientation session prior to the start of the program. By attending classes after the close of the seventh calendar day from the beginning of the semester, an applicant's status converts to 'matriculated student.'

Applicants who are not accepted to the Institute will receive a letter of denial by mail. When possible, the Institute will attempt to provide information about the specific areas in which an applicant needs improvement if the applicant wishes to reapply in subsequent years. Please see the Reapplication Information section for more information.

## Reapplication Information

Applicants who are denied admission are encouraged to reapply for a future year. By improving the areas suggested on the original decision letters (i.e. improving grades by taking additional course work, devoting more time and energy to any required portfolios, etc.), many individuals reapplying for admission are accepted.

To reapply, applicants should submit a new application form and indicate that they have applied previously for admission. The Office of Admissions retains all materials submitted by applicants for a period of six years. Therefore, items such as transcripts, letters of recommendations (optional for applicants to the Institute's undergraduate degree programs), and test scores can be transferred from an applicant's original file to the new application file.

Students who are reapplying need to supply the following materials only:

- New application form. Please submit online.
- 25€ application fee.
- Any new or updated documents, such as new transcripts, new test scores, etc.
- A short essay describing the progress and improvements that the applicant has made in the areas recommended in the original decision letter.
- After submitting their new application, readmission applicants are encouraged to contact the Office of Admissions by email at [admissions@digipen.es](mailto:admissions@digipen.es) to confirm whether any additional materials are needed for the completion of their application.

## Readmission Information

Any student who wishes to return to the Institute after an absence may apply to do so by completing a Readmission Application and submitting a non-refundable application fee, certified-true copies of transcripts from all institutions

attended since last attending the Institute, and other official documentation for specific circumstances as requested below:

#### MEDICAL WITHDRAWALS

A physician's statement must be included and it must indicate that the applicant is ready to resume studies. Additionally, it should describe any special needs the student may require upon returning to the Institute.

#### READMISSION AFTER ACADEMIC DISMISSAL

A statement explaining how time away from the institute was spent, why the student wishes to return, and how the student plans to be successful by returning should be submitted as part of the application for readmission. Students dismissed for academic reasons are not eligible to apply for readmission until at least one year has passed since the formal dismissal from the Institute. It is highly recommended that students take the time away to raise their cumulative GPA through college-level coursework in order to boost the likelihood of being readmitted.

#### READMISSION AFTER DISCIPLINARY ACTION

Applicants should include a formal appeal for the Appeals and Disciplinary Committee to review along with their application for readmission. Applicants previously withdrawn for disciplinary reasons must receive clearance from the Appeals and Disciplinary Committee to return.

#### READMISSION FOR PERSONAL REASONS

There are usually no impediments to returning to the Institute if there is space available; however, an academic plan may need to be developed with the student's advisor upon reenrollment, and students requesting readmission after an extended period of time must meet with an academic advisor to determine the viability of completing their degree program.

#### READMISSION AFTER NON-PAYMENT OF ACCOUNT

Outstanding accounts must first be settled before applying for readmission. Once settled, the policy for readmission follows the same guidelines listed in the Readmission for Personal Reasons section.

#### SUBMISSION OF OFFICIAL TRANSCRIPTS OF NON-DIGIPEN COURSEWORK

All readmission applicants to DigiPen Institute of Technology Europe-Bilbao must request an official transcript from the Institute's Office of the Administration to be sent to the Office of Admissions as part of their application. Additionally, if you have taken courses from another college since leaving the Institute, you must also have any and ALL official transcripts forwarded to the Office of Admissions from the Office of the Administration of each institution attended. The transcripts should show all academic work until the last semester or quarter you completed. If you are approved for readmission with coursework in progress, your admission status will be provisional, pending receipt of your final transcript(s). Finally, readmission applicants who are applying for readmission more than one year after withdrawing and who are not native English speakers may have to submit additional Proof of English language proficiency. Please see the *Proof of English Language Proficiency* section in the *Undergraduate Admissions* section.

## Non-Degree Seeking

Applicants who are interested in taking individual courses that are part of the Institute's degree programs may register for them based on each semester's course offerings and availability. Applicants will be handled on a first-come, first-served basis.

1. Applicants to the Non-Degree Seeking program must show proof of graduation from high school and a recommended minimum 2.5 GPA in their most recent studies for acceptance into the program.
2. Upon application, a degree program track must be selected and additional corresponding materials may be required.
3. Students must pass or show proof of having passed prerequisite courses before they are able to register for more advanced courses. Waiver exams may be administered if the students feel they have achieved proficiency.
4. Students must earn a grade of "C-" (or 1.7 quality points) or better to pass courses that are core to their chosen track.
5. Students must maintain a minimum GPA of 2.0 in order to remain enrolled in the Non-Degree Seeking program. Enrollment is on a continuous basis unless students do not register for courses for a given semester, at which time they will be withdrawn.
6. Applicants who are not native English speakers must provide Proof of English Language proficiency. Please see the Proof of English Language Proficiency section in the Undergraduate Admissions section.

Courses taken in the Non-Degree Seeking program do not lead to a degree and are not applicable to earning a professional certificate from the Institute.

## Waiver Credit, Advanced Placement Examinations, CLEP

Students may apply for course waivers if they can demonstrate that their knowledge and skills - whether they were gained by formal education, exam, work experience, or life experience - are equivalent to those gained by courses offered at DigiPen Institute of Technology Europe-Bilbao. Credit may be granted through other means: Advanced Placement (AP) Exam scores, College-Level Examination Program (CLEP) subject exam scores, or transfer credits from other post-secondary institutions. Course transfers and waivers are processed at 25€ per credit.

# Course Waiver Examinations

Students may meet an academic requirement, within specified limits, by passing a waiver examination at least equal in scope and difficulty to a final examination in a course. Successful completion of the examination waives the curricular requirement for a specific course but does not result in credit earned. Waiver credits will not reduce the total number of semester hours required for a degree; however, they will increase the available number of elective hours for a degree. Waiver examinations must be taken prior to the final semester at DigiPen Institute of Technology Europe-Bilbao, and they may not be repeated.

Students have the opportunity to waive designated courses by demonstrating mastery of the material in two steps:

1. A waiver petition to the respective department, indicating prior academic coursework and relevant work experience in the subject area; and
2. Performance on a placement exam offered by the respective department at the beginning of each term.

To petition waiving a course, the student must complete a waiver request for each course, submit a transcript or photocopy of the transcript with relevant coursework highlighted, and submit the requests to the Office of the Administration. Waiver requests may be completed online through SRS. Once submitted, waiver requests need to be approved by the department appropriate to the courses. For waiver requests received by July 1, students will receive notification by August 1. Waiver requests arriving in the Office of the Administration after July 1 will be handled on a rolling basis, as faculty schedules allow. Results of waiver requests received after the July 1 deadline are not guaranteed to be available before the start of classes.

It is not possible to predict the results of faculty review of course waiver requests. Courses generally include intermediate-level material, so a student who has completed only introductory work in a subject is not likely to be granted a waiver. Faculty take many factors into consideration, including the academic caliber of the school where the course was taken, the difficulty of the text, the grade received, and the time elapsed since completion of the course.

The following restrictions apply to all waiver examinations:

1. A student must have an approved waiver request on file before credit by examination can be recorded on the permanent record.
2. A student must be currently enrolled before a waiver examination can be recorded on the permanent record.
3. A maximum of 15 semester hours may be waived toward a bachelor degree.
4. Examinations may not be repeated.
5. Repeat course work and “F” grades (or 0 quality points) or “NP” grades are not open to waiver requests.

6. Students may not take waiver examinations on courses they have audited.

# Advanced Placement Examinations

Course waivers or credit may be granted for satisfactory achievement on Advanced Placement Exams of the College Entrance Examination Board taken within the last 10 years. AP exams must have been taken prior to the applicant’s graduation from high school. No grades will be assigned to the courses, nor will they be figured into a student’s grade point average. Courses waived or transferred are entered on students’ transcripts, but no grades or quality points are awarded. Official results must be sent to the Office of the Administration before course waivers or transfers are granted.

DigiPen Europe-Bilbao course credits may be waived or transferred through AP examinations, and these may be applied to satisfy DigiPen Europe-Bilbao’s degree requirements. The examinations and the courses for which waiver hours or credit are granted are listed below. Waivers/ credit granted for a specific course count toward the satisfaction of any requirement toward which the listed course counts.

## ACCEPTED AP SCORES AND DIGIPEN COURSE EQUIVALENTS

| AP EXAM                               | MINIMUM SCORE | DIGIPEN COURSE |
|---------------------------------------|---------------|----------------|
| Art – History of Art                  | 4             | ART 210        |
| English – Language and Composition    | 4             | ENG 110        |
| English – Literature and Composition  | 4             | ENG 399        |
| History – World History               | 4             | HIS 100        |
| Japanese                              | 4             | JPN 101        |
| Macroeconomics and Microeconomics     | 4             | ECN 100        |
| Statistics                            | 4             | MAT 105        |
| Calcab Subscore                       | 4             | MAT 150        |
| Mathematics – Calculus AB             | 4             | MAT 150        |
| Mathematics – Calculus BC             | 4             | MAT 200        |
| Music Theory                          | 4             | MUS 120/L      |
| Physics 1 – Introduction              | 4             | PHY 115        |
| Physics C – Mechanical                | 4             | PHY 200/L      |
| Physics C – Electricity and Magnetism | 4             | PHY 270/L      |
| Psychology                            | 4             | PSY 101        |

# College-Level Examination Program (CLEP)

There are two types of CLEP examinations: General and Subject. The Institute grants credit or course waivers for Subject Examinations only, and credit will be given only in

those areas in which comparable courses are offered at the Institute. Courses waived or transferred are entered on students' transcripts, but no grades or quality points are awarded. These exams may not be repeated. Examination must be taken prior to the student's completion of a total of 40 hours of college credit, and official results must be sent to the Office of the Administration.

CLEP offers a number of subject-matter examinations. Students obtaining the percentiles established by the mathematics, computer science, and humanities and social sciences departments will receive credit toward those basic requirements. Students wishing credit in courses other than those listed above should consult the appropriate departmental chair. The Institute will grant credit to students who pass the CLEP Subject Examinations approved by the department appropriate to the examination. The score necessary to receive credit through a Subject Examination will be the mean score achieved by C students in the national norms sample. The appropriate department will determine the number of course credits to be given for passing a Subject Examination.

Students should check with the College Board at [collegeboard.org](http://collegeboard.org) for further details and information concerning test centers and dates.

## Transfer Credit

Credit earned by examination at other colleges or universities within the last 10 years may be transferred, provided such credit meets the guidelines used by DigiPen Institute of Technology Europe-Bilbao. A student must take a minimum of 50% of the entire program at DigiPen (unless the student attended an institution with which DigiPen has established an articulation agreement). Due to the rigorous nature and subject specificity of the programs at DigiPen, students transferring into DigiPen should usually expect no more than 25% of credits will transfer.

The Office of the Administration will evaluate college credits earned elsewhere with respect to graduation requirements at DigiPen Europe- Bilbao. Developmental classes, orientation classes, or classes in which a student receives a "Pass" are not eligible for transfer credit consideration. Courses transferred or waived are entered on transcripts, but no grades or quality points are awarded.

Transfer credit may be accepted subject to the following conditions and restrictions:

1. The course(s) offered for transfer must be taken at an accredited institution, and these courses must appear on official transcripts from the institution.
2. The course(s) must be comparable in academic quality to DigiPen Europe-Bilbao courses; transfer credit will be denied for courses not meeting this standard. Accordingly, current students are strongly urged to seek transfer approval from their advisor and the Office of the Administration prior to enrollment in any course for which transfer approval might be sought.

3. Transfer credit will be considered for courses in which the grade of "B-" or better is recorded.
4. Courses transferred to a student's major may also require a validation examination in order to be accepted.
5. "Credit" or "Pass" grades will not be accepted for transfer.

If a course is accepted for credit, it will be counted as a transfer credit. No grade points from such transfer courses will be calculated in the DigiPen Europe-Bilbao grade point average. However, grades transferred for courses taken in residence at institutions with which DigiPen Europe-Bilbao has articulation agreements are exempt from this policy and will be recorded. Courses transferred in may not be used to substitute improved grades for passing grades earned at DigiPen Europe-Bilbao.

## Articulation Agreements

Credits from a college with an articulation agreement with DigiPen Institute of Technology Europe-Bilbao will be accepted, and grades earned will be included in students' DigiPen Europe-Bilbao transcripts. Please contact the Office of the Administration for a list of colleges with articulation agreements.

## Credit Evaluation Request

Challenge and waiver examinations may be requested from the Office of the Administration or online. A student must have approval for an exam prior to taking it.

## Transferability of Credits to Other Institutions

A student wishing to transfer DigiPen Europe-Bilbao credits to another institution may request the Institute to furnish transcripts and other documents necessary to a receiving institution. The Institute advises all prospective students that the courses and credits reflected on their transcript may or may not be accepted by a receiving institution. Students should inquire with the specific receiving institution about the transferability of DigiPen Europe-Bilbao credits.

## Granting Credits for Work Experience

DigiPen Europe-Bilbao does not grant credit for work experience.

# Tuition and Fees

All tuition and fees are in euros.

## Application Fee

There is a 60€ application fee. The application fee is refundable if the applicant requests a refund within three days after submitting the application fee and cancels the application.

## Enrollment Fee

Upon acceptance into a degree program, a 150€ registration fee must be paid to confirm enrollment. If a student cancels the enrollment, the student may request a refund of the registration fee within three days after signing the enrollment agreement and making an initial payment.

## Tuition Fee Payment

Please see the payment schedule in the Student Enrollment Agreement for dates and amounts due. The payment of tuition and all associated fees is the sole responsibility and obligation of the registering student. Tuition increases will be announced six months before taking effect.

Payment of tuition and fees can be made by electronic fund transfer.

## Late Registration Fee

Students are responsible for registering for courses and reregistering for courses that need to be retaken each semester by the posted date. All late course registrations will cost an additional 100€ to cover administrative fees.

## Books and Supplies

Text and reference books are estimated to be approximately 480€ per year. This cost is not included as a part of the tuition.

## Tuition

The flat-rate structure at DigiPen Europe-Bilbao is based on a semester basis. The tuition costs below are for full-time students (those students taking a minimum of 16 credits or more during each of the fall and spring semesters). In order for a student to complete the degree program in the typical four years, the student must take an average of 16-20 credits per semester.

| NO. OF CREDITS | EU                | NON-EU            |
|----------------|-------------------|-------------------|
| 16 or more     | 14.000€* per year | 18.000€* per year |

*\*Tuition is subject to change with six months' notice.*

Students re-registering for a course that needs to be retaken must pay the regular course fees and are responsible for re-registering in the course.

Students auditing a course must pay the regular course fees.

## Administrative Fee

This fee covers a limited number of transcript requests, add/drop requests, enrollment verifications, and re-registrations. This fee is 40€ per semester for all students.

## Alumni Audit Fees

Tuition, application, and enrollment fees are waived, but alumni are responsible for any course, administrative, and technology fees. Fees are non-refundable for alumni audits.

## Technology Fee

This fee covers supplies and maintenance costs for the students' use of equipment and upkeep of the computer labs. This fee is 40€ per semester for all students.

## Name Change Fee

Students may submit two preferred name change at no cost. However, any preferred name change requests after the initial two will incur a 75€ fee to cover administrative and material costs. Reverting to current legal name or officially changing legal name will not incur a fee.

## Transfer and Waiver Fees

Course transfers and waivers are processed at 25€ per credit.

## Course Fees

Some courses may require lab or material fees. Please refer to course descriptions on course registration forms.

# Cancellation and Refund Policies

## Cancellation Policies

- Applicants who have not visited the school prior to enrollment will have the opportunity to withdraw without penalty within three business days following either the regularly scheduled orientation procedures or following a tour of the school facilities and inspection of equipment where training and services are provided.
- All monies paid by an applicant who withdraws will be refunded if requested within three days after signing an enrollment agreement and making an initial payment.
- An applicant requesting cancellation more than three days after signing an enrollment agreement and making an initial payment, but prior to entering the school (i.e., prior to attending classes on or after the start date as noted on the enrollment agreement), is entitled to a refund of all monies paid minus an enrollment fee of 150€.

## Tuition Refund Schedule

A student who drops a course, who submits an official withdrawal in writing, or who is determined by the Institute to have withdrawn from the institute shall be refunded as follows:

- Before the close of the seventh calendar day from the beginning of the semester: students receive a 100% tuition refund.
- Before the close of the eighth calendar day through the thirtieth calendar day from the beginning of the semester: students receive a 50% tuition refund.
- After the thirtieth calendar day from the beginning of the semester: students are required to pay 100% of the tuition and no refund is available.
- Except for the enrollment fee, all other assessed fees are refunded on the same schedule as tuition payments.

## Tuition Account Reimbursement

### REIMBURSEMENT REQUESTS

Any credit balance left on a student account is applied to future charges unless the student requests a reimbursement check by signing a Reimbursement Request Form.

### REIMBURSEMENT CHECK

A reimbursement check is made payable to the student, unless otherwise instructed by the student on the Reimbursement Request Form. A reimbursement check may be picked up from the Office of Accounting or mailed to the address specified on the Reimbursement Request Form. A reimbursement check may be issued within two to four weeks from the date the request was received or the credit balance appeared on the student account, whichever is later.

### INACTIVE STUDENT ACCOUNTS

Any credit balance left on a student account that becomes inactive through graduation, withdrawal, or any other event is automatically reimbursed to the student within account's

change of status. A reimbursement check is made to the student and mailed to the student's last-known billing address.

### TERMINATION DATE

For refund purposes, the termination date for institutional withdrawal is the last date of actual attendance at the Institute by the student or the date of determination in accordance with the Institute's withdrawal policy. Similarly, the termination date for withdrawal from individual courses is the date of receipt of the appropriate withdrawal form. Notice of cancellation or withdrawal should be given by completing the appropriate withdrawal form, whether it is withdrawal from the Institute or from specific classes for which the student registered.

If the student's account remains delinquent for over 30 days, the Institute reserves the right to cancel the student's registration.

### SPECIAL CASES

In the documented event of prolonged illness or accident, death in the family, or other special circumstances that make it impractical to complete the program in which the student is enrolled, the Institute shall make a settlement that is reasonable and fair to both parties. These will be determined on a case-by-case basis.

### APPLICATION OF POLICY

Any monies due to the student shall be refunded within 60 days of the account's change of status (i.e., the date when the Office of the Administration changes the status of a student's account) or within 60 days from the date of receipt of payment, in the event that the date of such receipt is after the student's last date of attendance.

If a student's financial obligation is not fulfilled, the Institute is authorized to do the following until the owed monies are paid:

- Withhold the release of the student's academic records or any information based upon the records.

## Financial Assistance

### Loans

DigiPen Institute of Technology Europe-Bilbao has arranged agreements with a select number of local banks for students to acquire student loans. Interested students should contact the banks directly for details, but may find a list of available options by contacting the Administration Office or by visiting the [website digipen.es](http://www.digipen.es).

## Student Affairs

Student Affairs provides services to all degree-seeking students in order to support their academic, professional, and personal development. The sections below detail some aspects of a few of the services provided by Student Affairs.



## Career Services

DigiPen Europe-Bilbao provides a variety of resources for enrolled degree-seeking students to jumpstart their professional development before they graduate and transition into the industry. These resources include on-campus facilities to connect students with prospective employers, communication workshops, and both group and one-on-one appointments to review application materials (e.g., resumes, cover letters, websites) and discuss interviewing and other job search skills.

DigiPen Europe-Bilbao establishes relationships with potential employers and maintains an online professional/social networking groups for alumni.

Please note that employment upon graduation is not guaranteed, nor is DigiPen Europe-Bilbao obligated to secure employment on behalf of students.

## Disability Support Services

DigiPen Institute of Technology Europe-Bilbao is committed to providing equal access to all of its programs, courses, activities, events, and services. DigiPen Europe-Bilbao will provide reasonable accommodations to qualified students with disabilities.

DigiPen Europe-Bilbao's Disability Support Services staff is appointed by the President of DigiPen to practice the authority to review student documentation and determine the needs for any reasonable accommodations to be provided by DigiPen Europe-Bilbao to ensure equal access. Wherever possible, reasonable accommodations will be offered provided they neither fundamentally alter the nature of the programs or the academic requirements that are considered essential to the program of study, nor create an undue hardship for DigiPen Europe-Bilbao.

DSS staff will engage in a collaborative effort with students to assure equal access for students with disabilities. The DSS staff will also work with departments, faculty, and staff in the broader DigiPen Europe-Bilbao community to prevent and eradicate discrimination on the basis of disability.

Current and prospective students who would like more information on DSS should contact the Administration department.

## Alumni Relations

The Institute maintains a database of all graduates and DigiPen alumni are encouraged to report back regarding changes to their professional status. DigiPen also provides career resources post-graduation and encourages alumni to remain connected with the DigiPen community. DigiPen Europe-Bilbao graduates are welcome to attend U.S. alumni events.

The Alumni Audit allows graduates of DigiPen Institute of Technology to take courses tuition-free within two calendar

years of graduation. Participating alumni must review and sign an Alumni Audit Enrollment Agreement prior to attending courses.

## Regulation of Conduct and Disciplinary Procedures

DigiPen Institute of Technology Europe-Bilbao is an academic institution that strives to ensure all students have a safe and effective workplace free of harassment, which supports collaborative and cooperative education. To this end, students will comport themselves in a professional manner when dealing with instructors, faculty, administrators, and/or other students. They are expected to dress and manage personal hygiene in a way that does not cause undue offense to other students, faculty, or staff of the Institute, and to refrain from verbal or physical intimidation of others. The Institute has the right to take appropriate disciplinary action warranted by a student's misconduct. The specific provisions as to offenses, penalties, and disciplinary procedures set out below should not be construed as limiting the general authority of the Institute.

## Rules and Regulations

1. It is strictly forbidden to bring in or out of the premises any digital storage and any form of memory sticks or optical media, diskettes, video recorders, etc. other than for academic and approved usages which directly apply to courses being taken by the student during the term of this agreement, or for the required purpose of maintaining back-up copies of student-created projects and assignments. Additionally, it is forbidden to bring in any personal computers or software, as well as any video or audio recording equipment, without first agreeing to and signing a Network and Internet Usage Agreement. Students are responsible for guaranteeing that any files transferred to and from DigiPen's equipment are free of malicious viruses or Trojan horses. In respect to the above, students are only allowed to carry in and out of the DigiPen premises data files only and not executable files. This includes student-created executables. Following this policy will greatly reduce the risks of virus infections to the DigiPen network. In order for DigiPen faculty to review and grade projects and assignments, source code must be stored and executables must be generated at DigiPen from the corresponding source code.
2. Students are forbidden from downloading any files from the Internet or installing any software, including executable files (single or packaged) downloaded from the internet or from any other media, and including but not limited to freeware and/or shareware on DigiPen computers, without the written approval from a DigiPen faculty member or from DigiPen's IT department.
3. In order to prevent damage to equipment and facilities, food and/or drink are not permitted anywhere within the training areas of the premises.

4. Smoking is not permitted anywhere within the premises, including, but not limited to, the washrooms, elevators, or stairwells.
5. Student ID tags must be worn visibly when on the premises. Lost or stolen ID tags must be reported to the Security as soon as possible.
6. All student projects must receive approval from DigiPen's instructors prior to commencement of any production. DigiPen reserves the right to reject ideas or to stop production of any student game, animation, or project for reasons deemed appropriate to DigiPen. The Institute will not allow the production of any student work that contains or makes a direct or indirect reference to any of the following material/subject:
  - Religious content
  - Religious symbols
  - Pornographic material
  - Excessive violence
  - Sexual and nude content
  - Promotion of illegal substances
  - Promotion of racism or hate
  - Content demeaning to any group of society
7. Plagiarism will not be tolerated. Any student who submits the work of another person as the student's own is considered to have committed plagiarism. Types of work that can be plagiarized include, but are not limited to, source code, artwork, concepts, designs, or other material. Anyone submitting someone else's work without the explicit written permission from the legal owner may have violated the owner's intellectual property rights or copyrights, in addition to committing plagiarism. If any student is unsure as to what constitutes a case of plagiarism, the student should consult an instructor for clarification
8. Students shall not submit any work to the Institute that infringes upon the intellectual property rights of a third party. If, during the program, a student submits such work to the Institute, the student shall indemnify or hold harmless the Institute from and against all loss, damage, cost (including legal fees), and other liability, which the Institute may suffer as a result of the same.
9. Cheating on an examination will not be tolerated. Using any materials other than those authorized by the examiners during an exam is an example of cheating.
10. Submitting false documents, transcripts, or any other academic credentials to gain admission to DigiPen or to obtain any academic benefit is grounds for expulsion without recourse.
11. Disrupting instructional activities, including making it difficult to proceed with scheduled lectures, seminars, examinations, tests, etc., shall be considered an offense.
12. In the interest of maintaining an environment that is safe and free of violence and/or threats of violence for its employees, students, and visitors, possession of a dangerous weapon is prohibited on property owned by or under the control of DigiPen. Weapons and ammunition are potential safety hazards. Possession, use, or display of weapons or ammunition is inappropriate in an academic community for any reason, except by law enforcement officials. No weapons or ammunition shall be worn, displayed, used, or possessed on campus. Any member of the DigiPen community who violates this policy shall be subject to appropriate disciplinary action up to and including dismissal from DigiPen. Any person who is not a member of the DigiPen community who violates this policy shall be subject to all appropriate procedures and penalties including, but not limited to, the application of the criminal trespass provisions of local law. Members of the DigiPen community who are aware of any violations of this policy or who have other concerns about safety or weapons should report them to the Office of Admissions or the Director General.
13. Evidencing symptoms of alcohol or drug use while on Institute property, or the procurement or possession of alcohol or illegal substances on Institute property, is considered an offense.
14. It is forbidden to damage, remove, or make unauthorized use of the Institute's property or the personal property of faculty, staff, students, or others at the Institute. Without restricting the generality of "property," this includes information, however it may be recorded or stored.
15. It is strictly forbidden to use any equipment in the premises to produce any commercial work. The equipment is only to be used for homework and training purposes. Any attempt to produce commercial work will result in legal action against the offenders.
16. Public areas and equipment of the building must be kept clean. No tampering, moving, defacing, or otherwise altering the premises, equipment, or the building property is allowed.
17. Graffiti, other forms of mural art, or the posting of signs anywhere in the premises and the building without permission of the Administration is not permitted.
18. Office equipment (photocopier, fax, office phone, etc.) is not available for student use.
19. The assault of individuals, whether verbal or physical, including conduct which leads to the physical or emotional injury of faculty, staff, students, or others at the Institute, or which threatens the physical or emotional well-being of faculty, staff, students, or others at the Institute, is considered an offense.
20. In accordance with applicable law, DigiPen prohibits sexual harassment and harassment between faculty/staff and students and between students and students because of race, sex, color, national origin, ancestry, religion, physical or mental disability, veteran status, age, or any other basis protected by local law. Any



such harassment may violate the law and will not be tolerated. DigiPen's policy prohibits inappropriate conduct even though it may not reach the legal standard for harassment.

21. It is forbidden to attempt to engage in, aid and abet others to engage in, or attempt to engage in conduct which would be considered an offense.
22. Failing to comply with any penalty imposed for misconduct is considered an offense.

## Penalties

The penalties that may be imposed, singly or in combination, for any of the above offenses may include, but are not limited to, the following:

1. A failing grade or mark of zero for any course, examination, or assignment in which the academic misconduct occurred.
2. Suspension from the Institute for a specified period of time or indefinitely. Students will not receive credit for courses taken at another institution during a suspension.
3. Reprimand, with the letter placed in the student's file.
4. Restitution, in the case of damage to property or unauthorized removal of property.
5. A notation on the student's permanent record of the penalty imposed.
6. Expulsion from the Institute.
7. Legal action against the student committing the offense.

## Warnings

1. The penalty for plagiarism or for cheating is normally suspension from the Institute.
2. Charges filed under the local or international law and/or the commencement of legal proceedings do not preclude disciplinary measures taken by the Institute

## Procedures

Any student suspected or apprehended in the commission of an offense shall be given the opportunity to explain the incident and, if desired, to meet with department heads, a Student Affairs Officer, or other appropriate person, before the alleged offense is reported to the Appeals and Disciplinary Committee.

An alleged instance of student misconduct deemed serious enough for action by the Institute shall be referred to the Appeals and Disciplinary Committee. After an investigation and hearing at which the student is invited to appear, the committee reports its decision to the Dean of Faculty. If the

student wishes, the student then has the opportunity to meet with the Dean of Faculty to appeal the decision.

## Dismissal by the Institute

By written notice to a student, the Institute may, at its sole discretion, dismiss a student at any time if the student is in default of any of the terms, covenants, or conditions of the Institute.

1. Fail to maintain the minimum required cumulative GPA of 2.0 in undergraduate programs, while on Academic Warning
2. Fail to pass a class on the 4th attempt.
3. Fail to complete their program within 1.5 times the credit hours required to complete the program.
4. Violate the attendance policy.
5. Violate the Code of Student Conduct and DigiPen's Policies.

Upon dismissal, the student shall immediately return to the Institute all materials in the student's possession relating to the program, whether created by the student or other students, or provided by the Institute. In the event of dismissal, tuition and fees, if any, shall be refunded in accordance with the refund schedule, as it may be amended from time to time.

## Appeals

A student has the right to dispute a disciplinary decision of the Department Chair. A student who wishes to make an appeal must notify the Executive Director in writing and must provide a full explanation of the reasons for appealing in writing within one week of being notified of the decision.

Appeal hearings take place before a committee called together by the Executive Director. A student is entitled to be represented or assisted throughout the appeal process by an advocate who may be a friend, relative, or legal counsel. The student is entitled to explain the reasons for appealing either orally or in writing, and the student may call witnesses. The Department Chair is also present and puts forth the reasons for the original decision.

The members of the committee may ask questions of both the student and the Department Chair. As soon as possible after the hearing is completed, the Executive Director will notify the student of the final decision in writing.

# Student Internships

## Overview of Internships for Credit

Student internships are monitored, on-site work or service experiences for which students earn credit. Students who meet prerequisites and are in good academic standing are eligible for internships.

Internships can be arranged for any setting related to a student's career goals. The internship usually takes place in a professional workplace under the supervision of an experienced professional, whereby a high degree of responsibility is placed on the student. Internships can be part-time or full-time and must be paid. Internships must be approved in advance by the Institute.

## General Information Regarding Internship Programs

Through an internship program, students establish and meet intentional learning goals through actual product development experience, while actively reflecting on what they are learning throughout the experience. The goals for the internship may include:

- Academic learning – applying knowledge learned in the classroom to tasks in the workplace.
- Career development – gaining knowledge necessary to meet minimum qualifications for a position in the student's field of interest.
- Skill development – an understanding of the skills and knowledge required in a specific job category within the industry.
- Personal development – gaining decision-making skills, critical thinking skills, and increased confidence and self-esteem.

Since internships have a strong academic component, students are carefully monitored and evaluated for academic credit. Internships may vary in duration but generally last for one semester (3-4 months) and credit is granted based on 45 hours of internship per credit. For example, 5 credits (225 hours) and 3 credits (135 hours). Typically, students may replace two semesters of their respective program's projects courses. Please refer to individual program requirements for more information. Students may not replace more than 10 internship credits.

More detailed information about student internships can be found in the Internship Guidelines available in the Administration Office.

# Change of Major and Graduation

## Requesting a Change of Major

Students wishing to change their major are encouraged to speak with their academic advisor before submitting an application. To apply for a change of major, the following steps must be completed:

1. Submit a Request for Change of Major through the SIS (Colleague) Self-Service portal. The Administration Office will print an unofficial grade report to include with the change of major application.
2. Submit a Change of Major Statement addressing the following topics:
  - » Discuss your reasons for requesting a change of major, and explain how these reasons relate to your future goals (personal, educational, and professional).
  - » Describe how a change of major will affect your academic plan from this point forward, and include any steps you will take to ensure a smooth transition.
3. Submit any additional materials required for the degree program to which you would like to change. This information is available here: [digipen.edu/student-portal/academics/change-of-major](http://digipen.edu/student-portal/academics/change-of-major). Art portfolios should be submitted in hard copy or electronic format, as originals will not be returned. Detailed information about additional materials and the change of major process can be accessed online at [digipen.edu/student-portal/academics/change-of-major](http://digipen.edu/student-portal/academics/change-of-major). Once all relevant materials have been received and the application has been evaluated, a decision regarding the change of major will be sent to the student via mail or email. Students approved for a change of major will be emailed an Enrollment Agreement corresponding to the new program. The student must either sign this agreement electronically through DocuSign or print, sign, and return it to the Office of Admissions before the change can take effect.

### IMPORTANT INFORMATION REGARDING CHANGE OF MAJOR REQUESTS

- Changes of Major will only take effect on the first day of a new semester during which the student is enrolled in courses. To be considered, requests must be submitted at least fifteen working days before the end of the current semester; otherwise, the request will be considered for the next available semester. Specific deadlines for submitting a request for change of major are listed on the Academic Calendar.
- Students requesting a change of major should remember to consider add/drop deadlines. Requesting a change of major does not exempt students from the add/drop policies at DigiPen.

- Students may register for courses in any major prior to the deadline for adding a class, but it is recommended that they speak with their academic advisor if they have not yet had their request for change of major approved.
- Students who change their majors are encouraged to meet with their academic advisor or with the head of the program to which they are transferring to determine what changes need to be made to their schedules or recommended course sequences.
- Students considering a change of major should speak to the degree program faculty if they have specific questions about the differences between programs. Any questions about the status of a request for change of major or about this process should be directed to the Office of Admissions or to the Office of the Administration.

## Graduation Requirements

Degrees will be granted at the end of the semester in which students complete:

1. All program course requirements and minimum number of credits required for their program within 1.5 times the attempted credits.
  - a. A program of study must be completed within a reasonable period of time for a student to be eligible for graduation. The Institute defines “reasonable time” as the credit hours attempted cannot exceed 1.5 times the credit hours required to complete the program. Students who do not complete their studies during this maximum time frame will be placed on academic warning and will have to complete their program requirements under the conditions of their academic warning. For more information, please see the *Academic Warning* section.
2. GPA requirements for graduation.
  - a. All undergraduate students must have a cumulative GPA of at least 2.0 to graduate.
3. Fulfillment of financial and obligations to the school.

*Note: if a student receives an “I” grade in a course required for graduation in the student’s final semester, the student will not graduate until the semester in which the “I” is replaced by a letter grade. During that semester, the student must reapply for graduation.*

## Applying for Graduation

The Institute sets minimum requirements for all students seeking undergraduate degrees. DigiPen reserves the right to change graduation requirements at any time. Every degree candidate is expected to comply with changes in requirements as they relate to the uncompleted portion of coursework.

Most students will follow the graduation requirements published in the Course Catalog for the year they enter DigiPen Europe-Bilbao. Students who interrupt their attendance may be held to the requirements of the current

Course Catalog when they return. Students are responsible for ensuring that all graduation requirements have been completed.

Approximately four to six weeks after students apply for graduation, a degree audit report will be issued. This report identifies courses students have taken to complete their degree requirements. This report is used to assist students in planning future coursework to ensure that all graduation requirements are met. Students should take the degree audit report with them when checking progress toward graduation with their academic advisor and/or the Office of the Administration. Students are responsible for notifying the Office of the Administration of any changes in their proposed programs and for resolving any questions prior to registering for their final term at DigiPen Europe-Bilbao.

All Incomplete grades and conditions affecting graduation must be removed from the student’s record by the last regular class period of the term. All credit coursework affecting graduation must be completed by the regular class period of the term. A letter of instruction is mailed to degree candidates in March regarding deadlines and procedures for commencement-related activities.

Undergraduate students who feel there is justification for an exception to these graduation requirements may petition the Appeals and Disciplinary Committee. Information on filing a petition is available at the Office of the Administration.

## Graduation Application Process

| GRADUATION DATE | GRADUATION APPLICATION DUE DATE |
|-----------------|---------------------------------|
| April           | December 1                      |
| July            | April 1                         |
| December        | July 1                          |

1. The student completes the Graduation Application by the deadlines stated in the table above.
2. The academic advisor or administrator will review the most recent transcript or degree plan to verify progress and will notify the student of whether or not the student has completed all courses satisfactorily to date, and, if upon satisfactory completion of courses for which the student is currently registered, the student will be eligible for graduation.
3. Final approval will not be made until after final grades are submitted and posted to the student’s record. Degrees will be mailed as soon as possible after that process, which should be from four to six weeks after completion. The student needs to keep the Office of the Administration informed of address changes so that degrees are mailed to the correct address.

## Graduating with Academic Honors

DigiPen Institute of Technology Europe-Bilbao recognizes and commends students whose cumulative GPA indicates distinguished academic accomplishment upon the completion of the program.

Undergraduate students who graduate with a cumulative GPA of 3.85-4.0 are recognized as graduating Summa Cum Laude.

Undergraduate students who graduate with a cumulative GPA of 3.7-3.84 are recognized as graduating Magna Cum Laude.

Undergraduate students who graduate with a cumulative GPA of 3.5-3.69 are recognized as graduating Cum Laude.

## Educational Rights and Privacy of Student Records

DigiPen Institute of Technology Europe-Bilbao reserves for students' certain rights with respect to their education records. These rights are:

1. The right to inspect and review the student's education records within 45 days after the day the Institute receives a request for access. A student should submit to the Office of the Administration, Dean, or head of the academic department a written request that identifies the record(s) the student wishes to inspect. The Institute official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the Institute official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
2. The right to request the amendment of the student's education records that the student believes is inaccurate, misleading, or otherwise in violation of the student's privacy rights.
  - » A student who wishes to ask the school to amend a record should write to the school official responsible for the record, clearly identify the part of the record the student wants changed, and specify why it should be changed.
  - » If the Institute decides not to amend the record as requested, the Institute will notify the student in writing of the decision and the student's right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
3. The right to provide written consent before the Institute discloses personally identifiable information (PII) from the student's education records.
  - » The Institute discloses education records without a student's prior written consent for disclosure to school officials with legitimate educational interests. A school official typically includes a person employed by the Institute in an administrative, supervisory, academic, research, or support staff position (including law enforcement unit personnel and health staff); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee. A school official also may include a volunteer or contractor outside of the Institute who performs an institutional service of function for which the school would otherwise use its own employees and who is under the direct control of the school with respect to the use and maintenance of PII from education records, such as an attorney, auditor, or collection agent or a student volunteering to assist another school official in performing his or her tasks.

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

## Release of Student Directory, Academic, and Financial Records

If a student's parent, guardian, family member, or other individual wishes to obtain any of the student's information (including, but not limited to, account balance, tuition payments due, class registration, etc.), the student must fill out and submit the Student Consent for Release of Records Form listing the names of the individuals to whom the student's information may be released. This form will be distributed to all students during Orientation and can also be obtained from the Administration).

## Release of Student Directory Information

The following information is considered public or directory information and may be released to anyone unless a student informs the Office of the Administration that the student does not wish any information released:

1. Name
2. Primary telephone number
3. Institute email address
4. Major field of studies
5. Dates of attendance
6. Degrees and awards received
7. Full-time or part-time enrollment status
8. Number of credits for which a student is registered each semester
9. Educational institutions attended

## Declining Release of Information

If a student does not wish to have the Institute release any directory information and/or does not want directory information to appear in any published or electronic student directory, the student may restrict access through the SIS (Colleague) Self-Service portal. No information will be released on students or to students who have restricted release of directory information, including degrees awarded and dates of attendance.

## Allowing Release of Information

If a student restricts the release of directory information and now wishes to allow this information to be released, the student must go to the Office of the Administration and present photo identification and a completed and signed Release/ Restrict of Directory Authorization Form.