**Purdue Northwest Curriculum Document Coversheet**

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| --- | --- | --- | --- |
| **Document No:**  (According to [Instruction](http://faculty.pnw.edu/blog/curriculum-document-approval-procedures/)s[[1]](#footnote-1)) | COT 18-04 REV PROG CGT | **Approval by Faculty Senate:**  (Leave Blank) | 12/14/18 |
| **Proposed Effective Date** | July 1, 2019 | **Date Reviewed by Senate Curriculum**  **Committee:**  (Leave blank) | 11/9/18 |
| **Submitting Department:**  (Name of both Dept & College/School ) | Comp. Info. Tech. & Graphics  College of Technology | **Name(s) of Library Staff Consulted:**  (NA if not required) | N/A |
| **Date Reviewed by Department** | September 20, 2018 |  |  |
| **Submission Date:**  (Date sent to College/School Curr Comm after Dept Review) | October 4, 2018 | **Will New Library**  **Resources Used?** | **Yes** **No**  Double-click to check Yes / No. |
| **Date Reviewed by College/School Curriculum Committee** | October 5, 2018 | **Form 40 Needed?**  (Double-click one box.)  Registrar will complete Form 40 **after** Senate approval of document. | **Yes** New courses or any course change, check **YES**  **No** For **all other** curriculum matters, check **NO**. |
| **Contact Person(s):**  (Name & Title) | Michael Alden Roller  Associate Professor of CGT |  |  |

Unless marked “Leave blank” all parts of this form must be filled in **before** sending to Secretary of the Faculty Senate.

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| --- |
| **Task (check all that apply and fill out sections appropriate for each change).**  Program/Concentration Change or New Program/Concentration Proposal: Complete Section I, III, & IV  Minor Change or New Minor Proposal: Complete Section I (delete sections III & IV)  Certificate Change or New Certificate Proposal: Complete Section I (delete sections III & IV)  Course Change or New Course Proposal: Complete Section II (delete sections III & IV) |
| **Program name**.  Computer Graphics Technology |
| **Degree name(s).** (If applicable.)  Bachelors of Science in Computer Graphics Technology |

## Section I: This section is for changes in programs, minors and certificates

|  |
| --- |
| **List the major changes in each program of study, minor or certificate.**   1. Reduces the number of required courses for the program core from 72 to 35 credit hours per accreditor requirement 2. Increases elective credit hours from three to fifteen per accreditor requirement. 3. Adds Elementary Statistical Methods (STAT 30100) to the GenEd requirements per accreditor requirement. 4. Designates specific GenEd courses to ensure compliance with current core category requirements. |
| **Impact on Students.** (State “N/A” if proposal will not greatly affect students.)  Students within the CGT program will have a greater degree of choice by combining major courses with electives that best aligns with their specific career pathway. |
| **Impact on University Resources.** (State “N/A” if proposal will not require new resources, faculty or funds.)  N/A |
| **Impact on other Academic Units.** (State “N/A” if proposal will not affect other units.)(Include name of person in affected area discussed with)  N/A |

## Section II: This section is for changes in courses only

|  |
| --- |
| **Subject.** (Brief description of proposed change, addition or deletion.) |
| **Justification.** (Briefly list main reasons for proposed change, addition or deletion.) |

Use the **Current** and **Proposed** spaces below for course changes only. Otherwise, mark “N/A”

|  |  |  |
| --- | --- | --- |
| **Current:** (Course changes: include entire present catalog information. Leave blank if new course) | | **Proposed:** (Course changes: include entire new catalog information.) |
| **Is this course also:** | **General Education** | **Currently Designated ExL (see** [**instructions[[2]](#footnote-2)**](http://faculty.pnw.edu/blog/curriculum-document-approval-procedures/)**)** |

|  |
| --- |
| **Course Objectives / Learning Outcomes.** (New courses only. List main outcomes. If lengthy, attach separate page.)  1.  2.  3. |
| **Impact on Students.** (State “N/A” if proposal will not greatly affect students.) |
| **Impact on University Resources.** (State “N/A” if proposal will not require new resources, faculty or funds.) |
| **Impact on other Academic Units.** (State “N/A” if proposal will not affect other units.) (Include name of person in affected area this was discussed with.) |

(Boxes will expand and spill over onto next page to accommodate your typing.)

***Document No:***

## Section III: PLAN OF STUDY REVISION

### Degree Name: Bachelor of Science Computer Graphics Technology

### Degree Requirements

### PNW General Education Core

| **Core Categories** | **Credits** | **Courses:** Enter “Select from list” or designate course(s) from list |
| --- | --- | --- |
| English Composition | 6 | ENGL 10400, ENGL 22000 |
| Speech Communication | 3 | COM 11400 |
| Quantitative Reasoning | 3 | MA 14700 |
| Natural Sciences | 4 | PHYS 22200 |
| Technology | 3 | CGT 14100 |
| Humanities | 3 | Select from General Education Core List |
| Social Sciences | 3 | PSY 12000 |
| Additional credits | 3 | STAT 30100 |
| General Ed Elective | 0 | None |
| First-Year Experience (FYE) | 3 | GS 19100 |
| **Total** (minimum) | 31 |  |

### Other Required Courses

ECON 10100: Survey of Economics 3 credits

BIOL 11100: Fundamentals of Biology 3 credits

MA 14800: Algebra and Trigonometry for Technology II 3 credits

COM 31400: Advanced Presentational Speaking 3 credits

MGMT/OLS Selective 3 credits

MGMT/OLS Selective 3 credits

MGMT/OLS Selective 3 credits

MGMT/OLS Selective 3 credits

BUSM/MKG/COM/CS/JSM/AD Elective 3 credits

BUSM/MKG/COM/CS/JSM/AD Elective 3 credits

BUSM/MKG/COM/CS/JSM/AD Elective 3 credits

BUSM/MKG/COM/CS/JSM/AD Elective 3 credits

BUSM/MKG/COM/CS/JSM/AD Elective 3 credits

Total Other Required Courses 33 credits

### Core: Required Courses

CGT 10100: Introduction To Computer Graphics Technology 3 credits

CGT 11100: Design for Visualization and Communication 3 credits

CGT 11200: Sketching for Visualization and Communication 3 credits

CGT 11600: Geometric Modeling for Visualization and Communication 3 credits

CGT 14100: Internet Foundations, Technology, and Development 3 credits

CGT 11800: Fundamentals of Imaging Technology 3 credits

CGT 21500: Computer Graphics Programming 3 credits

CGT 24100: Introduction to Computer Animation 3 credits

CGT 2XX00: Foundations of Interaction Design 3 credits

CGT 34600: Digital Video and Audio 3 credits

CGT 41501: Contemporary Problems in Applied Computer Graphics 2 credits

CGT 41600: Senior Design Project 3 credits

Total Core 35 credits

### Concentration

CGT 30000/40000: Selective 3 credits

CGT 30000/40000: Selective 3 credits

CGT 30000/40000: Selective 3 credits

CGT 30000/40000: Selective 3 credits

CGT 30000/40000: Selective 3 credits

CGT 30000/40000: Selective 3 credits

CGT 30000/40000: Selective 3 credits

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Total Concentration 21 credits

**Total credits required for baccalaureate degree: 120\***

**\***For degree programs that require an excess of 120 credit hours, provide explanation and attach documentation, if appropriate.

## Section IV: For all Program Changes;

## Current Semester by Semester

(Delete if new program)

Semester One **Total Credits** = 15

| **Program Requirements : Designate Program Requirement** | **Subject Code/Course Number** | **(GenEd)**  **Yes=X** | **Credits**  **Number** | **Min Grade** | **Prerequisites** |
| --- | --- | --- | --- | --- | --- |
| Introduction to Computer Graphics Technology | CGT 10100 |  | 3 |  | None |
| Design for Visualization and Communication | CGT 11100 |  | 3 |  | None |
| Sketching for Visualization and Communication | CGT 11200 |  | 3 |  | None |
| English Composition I | ENGL 10400 | X | 3 |  | None |
| Algebra and Trigonometry for Technology I | MA 14700 | X | 3 |  | ALEKS Placement |

Semester Two **Total Credits** = 15

| **Program Requirements : Designate Program Requirement** | **Subject Code/Course Number** | **(GenEd)**  **Yes=X** | **Credits**  **Number** | **Min Grade** | **Prerequisites** |
| --- | --- | --- | --- | --- | --- |
| Geometric Modeling for Visualization and Communication | CGT 11600 |  | 3 |  | None |
| Internet Foundations, Technologies, and Development | CGT 14100 |  | 3 |  | None |
| Computer Graphics Programming I | CGT 21500 |  | 3 |  | None |
| Algebra and Trigonometry for Technology II | MA 14800 |  | 3 |  | MA 14700 or MA 15300  See Note (4) |
| Fundamentals of Speech | COM 11400 | X | 3 |  | None |

Semester Three **Total Credits** = 16

| **Program Requirements : Designate Program Requirement** | **Subject Code/Course Number** | **(GenEd)**  **Yes=X** | **Credits**  **Number** | **Min Grade** | **Prerequisites** |
| --- | --- | --- | --- | --- | --- |
| Raster Imaging for Computer Graphics | CGT 21100 |  | 3 |  | None |
| Technical Report Writing | ENGL 22000 |  | 3 |  | ENGL 10400 |
| Survey of Economics | ECON 10100 |  | 3 |  |  |
| General Physics I | PHYS 22000 | X | 4 |  | MA 14700 & MA 14800 OR MA 15300 |
| Programming Elective | Any Course with C++ or Java Emphasis |  | 3 |  |  |

Semester Four **Total Credits** = 15

| **Program Requirements : Designate Program Requirement** | **Subject Code/Course Number** | **(GenEd)**  **Yes=X** | **Credits**  **Number** | **Min Grade** | **Prerequisites** |
| --- | --- | --- | --- | --- | --- |
| Vector Imaging for Computer Graphics | CGT 21600 |  | 3 |  | None |
| Introduction to Computer Animation | CGT 24100 |  | 3 |  |  |
| Principles of UX Design | CGT 25600 |  | 3 |  | CGT 11100 |
| Human Relations in Organizations | OLS 25200 |  | 3 |  |  |
| Natural Science Elective | Any Natural Science |  | 3 |  |  |

Semester Five **Total Credits** = 15

| **Program Requirements : Designate Program Requirement** | **Subject Code/Course Number** | **(GenEd)**  **Yes=X** | **Credits**  **Number** | **Min Grade** | **Prerequisites** |
| --- | --- | --- | --- | --- | --- |
| Multimedia, Animation, and Video Game Design and Development | CGT 33300 |  | 3 |  | CGT 24100 |
| Digital Lighting and Rendering for Computer Animation | CGT 34000 |  | 3 |  | CGT 24100 & CGT 11600 |
| Interactive Multimedia Design | CGT 35100 |  | 3 |  | CGT 25600 |
| Principles of Interactive and Dynamic Media | CGT 35300 |  | 3 |  | CGT 31600 |
| Creativity in Business and Industry | OLS 35000 |  | 3 |  |  |

Semester Six **Total Credits** = 15

| **Program Requirements : Designate Program Requirement** | **Subject Code/Course Number** | **(GenEd)**  **Yes=X** | **Credits**  **Number** | **Min Grade** | **Prerequisites** |
| --- | --- | --- | --- | --- | --- |
| Advanced Graphic Design for Web and Multimedia | CGT 30700 |  | 3 |  | CGT 14100 & CGT 21100 &CGT 21600 & CGT 25600 & CGT 35300 |
| Motion for Computer Animation | CGT 34100 |  | 3 |  | CGT 24100 & CGT 11600 |
| Digital Video and Audio | CGT 34600 |  | 3 |  | CGT 24100 |
| Multimedia Application Development | CGT 45100 |  | 3 |  | CGT 25600 & CGT 35100 & CGT 35300 & CGT 35600 |
| OLS Elective | Any OLS Course |  | 3 |  |  |

Semester Seven **Total Credits** = 14

| **Program Requirements : Designate Program Requirement** | **Subject Code/Course Number** | **(GenEd)**  **Yes=X** | **Credits**  **Number** | **Min Grade** | **Prerequisites** |
| --- | --- | --- | --- | --- | --- |
| Web Programming, Development and Data | CGT 35600 |  | 3 |  | CGT 25600 |
| Contemporary Problems in Applied Computer Graphics | CGT 41501 |  | 2 |  | Instructor Consent |
| Production for Computer Animation | CGT 44200 |  | 3 |  | CGT 34100 |
| Technical Elective | See Note 2 |  | 3 |  |  |
| Internship or CGT Elective | See Note 3 |  | 3 |  |  |

Semester Eight **Total Credits** = 15

| **Program Requirements : Designate Program Requirement** | **Subject Code/Course Number** | **(GenEd)**  **Yes=X** | **Credits**  **Number** | **Min Grade** | **Prerequisites** |
| --- | --- | --- | --- | --- | --- |
| Senior Project Design | CGT 41600 |  | 3 |  | CGT 41501 |
| Post-Production and Special Effects for Animation  OR  Advanced Web Programming, Development and Data | CGT 44600  CGT 45600 |  | 3 |  | CGT 44200  CGT 35600 |
| OLS Elective | Any OLS course |  | 3 |  |  |
| General Education Elective | Humanities |  | 3 |  |  |
| General Education Elective | Social Sciences |  | 3 |  |  |

Notes:

Note 1: Intro Computer Graphics Tech – CGT 10100 meets the General Education Core requirements of Computer Utilization, Wellness Education, Technology in Society and Freshman Experience.

Note 2: Technical Elective – Any course in CGT, Technology, or AD (requires approval by CGT advisor).

Note 3: Internship or CGT Elective – CGT 30800 - Prepress Production And Design; CGT 30900 - Internship In Computer Graphics Technology; CGT 31000 - Drawing, Acting And Scripts For Animation; any CGT graduate course; 30000 to 40000 level AD course in Sketching or Photography; or advanced course in visual programming, modeling, and / or simulation may be taken as CGT electives.

General Education Electives: Students may choose any of the approved general education courses listed below for Humanities and Social Sciences. Only courses approved by the University Senate satisfy General Education Requirements. Humanities -- THTR 21000, MUS 25000, AD 25500. Social Sciences -- SOC 10000, ANTH 10500, PSY 12000, HIST 20100, HIST 27100, HIST 27200, 33000, HIST 37300, HIST 47200.

## Section IV continued: For all Program Changes;

## Proposed Semester by Semester

Semester One **Total Credits** = 15

| **Program Requirements: Designate Program Requirement** | **Subject Code/Course Number** | **(GenEd)**  **Yes=X** | **Credits**  **Number** | **Min Grade** | **Prerequisites** |
| --- | --- | --- | --- | --- | --- |
| Introduction to Computer Graphics Technology | CGT 10100 |  | 3 | C | None; See Note (4) |
| Design for Visualization and Communication | CGT 11100 |  | 3 | C | None; See Note (4) |
| Sketching for Visualization and Communication | CGT 11200 |  | 3 | C | None; See Note (4) |
| English Composition I | ENGL 10400 | X | 3 |  | None |
| First-Year Experience I | GS 19100 | X | 3 |  | None |

Semester Two **Total Credits** = 15

| **Program Requirements: Designate Program Requirement** | **Subject Code/Course Number** | **(GenEd)**  **Yes=X** | **Credits**  **Number** | **Min Grade** | **Prerequisites** |
| --- | --- | --- | --- | --- | --- |
| Geometric Modeling for Visualization and Communication | CGT 11600 |  | 3 | C | None; See Note (4) |
| Internet Foundations, Technologies, and Development | CGT 14100 | X | 3 | C | None; See Note (4) |
| Fundamentals of Imaging Technology | CGT 11800 |  | 3 | C | None; See Note (4) |
| Algebra and Trigonometry for Technology I | MA 14700 | X | 3 | C | None; See Note (4) |
| Fundamentals of Speech | COM 11400 | X | 3 |  | None |

Semester Three **Total Credits** = 15

| **Program Requirements: Designate Program Requirement** | **Subject Code/Course Number** | **(GenEd)**  **Yes=X** | **Credits**  **Number** | **Min Grade** | **Prerequisites** |
| --- | --- | --- | --- | --- | --- |
| Computer Graphics Programming I | CGT 21500 |  | 3 | C | None; See Note (4) |
| Introduction to Computer Animation | CGT 24100 |  | 3 | C | None; See Note (4) |
| Fundamentals of Biology | BIOL 11100 |  | 3 |  | None |
| Survey of Economics | ECON 10100 |  | 3 |  | None |
| Algebra and Trigonometry for Technology II | MA 14800 |  | 3 | C | MA 14700 or MA 15300; See Note (4) |

Semester Four **Total Credits** = 16

| **Program Requirements: Designate Program Requirement** | **Subject Code/Course Number** | **(GenEd)**  **Yes=X** | **Credits**  **Number** | **Min Grade** | **Prerequisites** |
| --- | --- | --- | --- | --- | --- |
| Foundations of Interaction Design | CGT 25000 |  | 3 | C | CGT 10100 & CGT 11100 & CGT 14100 with a grade of “C” or better; See Note (4) |
| Advanced Presentational Speaking | COM 31400 |  | 3 |  | COM 11400; See Note (4) |
| General Physics I | PHYS 22000 | X | 4 |  | MA 14800 or MA 15400 |
| Elementary Psychology | PSY 12000 | X | 3 |  | None |
| Technical Report Writing | ENGL 22000 | X | 3 |  | ENGL 10400 |

Semester Five **Total Credits** = 15

| **Program Requirements : Designate Program Requirement** | **Subject Code/Course Number** | **(GenEd)**  **Yes=X** | **Credits**  **Number** | **Min Grade** | **Prerequisites** |
| --- | --- | --- | --- | --- | --- |
| Digital Video and Audio | CGT 34600 |  | 3 | C | CGT 24100; See Note (4) |
| Selective | CGT 30000-40000 |  | 3 | C | See Notes (1,4) |
| Selective | CGT 30000-40000 |  | 3 | C | See Notes (1,4) |
| Elementary Statistical Methods | STAT 30100 | X | 3 |  | MA 14700 |
| Management Selective | MGMT/OLS 10000-40000 |  | 3 | C | See Notes (2,4) |

Semester Six **Total Credits** = 15

| **Program Requirements : Designate Program Requirement** | **Subject Code/Course Number** | **(GenEd)**  **Yes=X** | **Credits**  **Number** | **Min Grade** | **Prerequisites** |
| --- | --- | --- | --- | --- | --- |
| Selective | CGT 30000-40000 |  | 3 | C | See Notes (1,4) |
| Selective | CGT 30000-40000 |  | 3 | C | See Notes (1,4) |
| Selective | CGT 30000-40000 |  | 3 | C | See Notes (1,4) |
| Management Selective | MGMT/OLS 10000-40000 |  | 3 | C | See Notes (2,4) |
| Humanities Elective | See GenEd Core List | X | 3 |  |  |

Semester Seven **Total Credits** = 14

| **Program Requirements : Designate Program Requirement** | **Subject Code/Course Number** | **(GenEd)**  **Yes=X** | **Credits**  **Number** | **Min Grade** | **Prerequisites** |
| --- | --- | --- | --- | --- | --- |
| Contemporary Problems in Applied Computer Graphics | CGT 41501 |  | 2 | C | Instructor Consent; See Note (4) |
| Selective | CGT 30000-40000 |  | 3 | C | See Notes (1,4) |
| Management Selective | MGMT/OLS 10000-40000 |  | 3 | C | See Notes (2,4) |
| Internship or Elective | CGT 30900 or BUSM/MKG/COM/CS/JSM/AD 10000-40000 |  | 3 |  | See Note (3) |
| Elective | BUSM/MKG/COM/CS/JSM/AD 10000-40000 |  | 3 |  | See Note (3) |

Semester Eight **Total Credits** = 15

| **Program Requirements : Designate Program Requirement** | **Subject Code/Course Number** | **(GenEd)**  **Yes=X** | **Credits**  **Number** | **Min Grade** | **Prerequisites** |
| --- | --- | --- | --- | --- | --- |
| Senior Design Project | CGT 41600 |  | 3 | C | CGT 41501; See Note (4) |
| Selective | CGT 30000-40000 |  | 3 | C | See Notes (1,4) |
| Management Selective | MGMT/OLS 10000-40000 |  | 3 | C | See Notes (2,4) |
| Internship or Elective | CGT 30900 or BUSM/MKG/COM/CS/JSM/AD 10000-40000 |  | 3 |  | See Note (3) |
| Elective | BUSM/MKG/COM/CS/JSM/AD 10000-40000 |  | 3 |  | See Note (3) |

Notes:

(1) **Selective**: an upper-division (30000-40000) Computer Graphics Technology (CGT) course listed within the official Purdue University Northwest course catalog or approved by the Purdue Northwest Faculty Senate that is not a required course in this plan of study. Selective courses are offered at the complete discretion of full-time CGT faculty on a term-by-term basis*.* See the program advisor for a list of current selective course offerings.

(2) **Management Selective**: any course in Management (MGMT) or Organizational Leadership and Supervision (OLS) pre-approved by full-time CGT faculty. See the program advisor for a list of pre-approved management selective courses.

(3) **Electives**: any course (or sequence of courses) in Business (BUSM), Marketing (MKG), Communications (COM), Computer Science (CS), Information Systems (JSM), or Art and Design (AD) pre-approved by full-time CGT faculty. CGT 30900: Internship in CGT may be taken in place of an elective where noted. Also, specific Information Technology and Security (ITS) courses may also be taken with pre-approval from the full-time CGT faculty. See the program advisor for a list of pre-approved elective courses.

(4) A semester grade of A, B, C or P is required. If a semester grade other than A, B, C or P is recorded, the course must be retaken before progressing to the next course in sequence. Incompletes and withdraws do not warrant a passing grade. May be repeated only once due to an unsatisfactory or non-passing (W, AW, WF, NP, D or F) grade. Students must successfully earn a passing semester grade for the course on the second attempt to remain enrolled in the program.

1. <http://faculty.pnw.edu/blog/curriculum-document-approval-procedures/> [↑](#footnote-ref-1)
2. <http://faculty.pnw.edu/blog/curriculum-document-approval-procedures/> [↑](#footnote-ref-2)