|  |  |
| --- | --- |
| For Academic Affairs and Research Use Only | |
| Proposal Number |  |
| CIP Code: |  |
| Degree Code: |  |

**New or Modified Course Proposal Form**

**[X] Undergraduate Curriculum Council**

**[ ] Graduate Council**

|  |
| --- |
| **[X]New Course, [ ]Experimental Course (1-time offering), or [ ]Modified Course (Check one box)** |

Signed paper copies of proposals submitted for consideration are no longer required. Please type approver name and enter date of approval.

|  |  |
| --- | --- |
| Shelley Gipson 1/21/2021 **Department Curriculum Committee Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **COPE Chair (if applicable)** |
| Temma Balducci 1/21/2021 **Department Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Head of Unit (if applicable)** |
| Warren Johnson 1/27/2021  **College Curriculum Committee Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Undergraduate Curriculum Council Chair** |
| Mary Elizabeth Spence 1/28/2021 **Office of Assessment (new courses only)** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Graduate Curriculum Committee Chair** |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date… **College Dean** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Vice Chancellor for Academic Affairs** |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **General Education Committee Chair (if applicable)** |  |

1. **Contact Person (Name, Email Address, Phone Number)**

Mindy Fulcher, Dept. of Art + Design, mfulcher@astate.edu, 870-761-2121

1. **Proposed starting term and Bulletin year for new course or modification to take effect**

Bulletin Year 2021-2022, Start Term Spring 2022

**Instructions:**

*Please complete all sections unless otherwise noted. For course modifications, sections with a “Modification requested?” prompt need not be completed if the answer is “No.”*

|  |  |  |
| --- | --- | --- |
|  | **Current (Course Modifications Only)** | **Proposed (New or Modified)**  *(Indicate “N/A” if no modification)* |
| **Prefix** |  | **GRFX** |
| **Number\*** |  | **4213** |
| **Title** |  | **Interactive Infographics** |
| **Description\*\*** |  | **Advanced information design tools and techniques to create animated and interactive infographics.** |

***\**** (Confirm with the Registrar’s Office that number chosen has not been used before and is available for use. For variable credit courses, indicate variable range. *Proposed number for experimental course is 9*. )

\*\*Forty words or fewer as it should appear in the Bulletin.

1. **Proposed prerequisites and major restrictions** **[Modification requested? Yes/No]**

(Indicate all prerequisites. If this course is restricted to a specific major, which major. If a student does not have the prerequisites or does not have the appropriate major, the student will not be allowed to register).

1. **Yes** Are there any prerequisites? 
   1. If yes, which ones?

**C or better in GRFX 3613 (Information Design)**

Why or why not?

This course requires knowledge acquired during lower-level information design courses.

1. **No** Is this course restricted to a specific major?
   1. If yes, which major?
2. **Proposed course frequency [Modification requested? Yes/No]**

(e.g. Fall, Spring, Summer; if irregularly offered, please indicate, “irregular.”) *Not applicable to Graduate courses.*

**Spring**

1. **Proposed course type [Modification requested? Yes/No]**

Will this course be lecture only, lab only, lecture and lab, activity (e.g., physical education), dissertation/thesis, capstone, independent study, internship/practicum, seminar, special topics, or studio? Please choose one.

**Studio**

1. **Proposed grade type [Modification requested? Yes/No]**

What is the grade type (i.e. standard letter, credit/no credit, pass/fail, no grade, developmental, or other [please elaborate])

**Standard Letter**

1. **No**  Is this course dual-listed (undergraduate/graduate)?
2. **No** Is this course cross-listed?

*(If it is, all course entries must be identical including course descriptions. Submit appropriate documentation for requested changes. It is important to check the course description of an existing course when adding a new cross-listed course.)*

1. **No**  Is this course in support of a new program?

a. If yes, what program?

Enter text...

1. **No** Will this course be a one-to-one equivalent to a deleted course or previous version of this course (please check with the Registrar if unsure)?

a. If yes, which course?

Enter text...

**Course Details**

1. **Proposed outline** **[Modification requested? Yes/No]**

(The course outline should be topical by weeks and should be sufficient in detail to allow for judgment of the content of the course.)  
Note: This is an AOS course.

1. Module 1: Project Introduction   
   a. research/gather information  
   b. project planning
2. Module 2: Asset Creation / Adobe Animate Software Basics

a. sketching  
b. illustrate elements

c. software basic training

1. Module 3: Animation Introduction / Software Continued  
   a. understanding motion tweens  
   b. practice with timeline  
   c. storyboarding  
   d. software training continued
2. Module 4: Advanced Animation / Import Assets  
   a. export/import assets   
   b. animate elements using storyboard guides
3. Module 5: Interactive Elements (JavaScript basics, actions, events)  
   a. JavaScript basic introduction  
   b. create actions & events on timeline
4. Module 6: Testing / Revisions  
   a. review classmate’s projects  
   b. give and gather feedback from classmate’s projects  
   c. make revisions
5. Module 7: Publishing Files & Formats / Final Project Critique

a. learn about various file formats and uses  
b. publish projects  
c. final critique

1. **Proposed special features** **[Modification requested? Yes/No]**

(e.g. labs, exhibits, site visitations, etc.)

none

1. **Department staffing and classroom/lab resources**

Enter text...

1. Will this require additional faculty, supplies, etc.?

Current Digital Technology and Design Faculty will teach most classes (2 faculty on 5/5 load), with additional key adjuncts (existing) teaching some classes. This will be paid from AOS.

Software is open-source, or Adobe Creative Cloud; technology supplies are in-line with the AOS program requirements. Any additional costs are nominal. For example, a basic VR headset is $20.

1. **No** Does this course require course fees?

*If yes: please attach the New Program Tuition and Fees form, which is available from the UCC website.*

**Justification**

**Modification Justification (Course Modifications Only)**

1. Justification for Modification(s)

Enter text...

**New Course Justification (New Courses Only)**

1. Justification for course. Must include:

a. Academic rationale and goals for the course (skills or level of knowledge students can be expected to attain)

Students in this course will obtain problem solving, analytical, and design skills which are increasingly in demand in the design industry. Students will benefit in the career field through a portfolio that demonstrates an advanced design, animation and interactive skillset.

b. How does the course fit with the mission of the department? If course is mandated by an accrediting or certifying agency, include the directive.

The Department of Art + Design’s mission: The Department of Art + Design is dedicated to the creative, aesthetic and cultural development of visual art students that builds upon a well-rounded liberal arts education. This course adds to this mission.

c. Student population served.

This course will be an elective for the BS Digital Technology and Design (Digital Innovations) degree.

d. Rationale for the level of the course (lower, upper, or graduate).

This course requires a background in foundational design skills plus knowledge acquired from previous information and identity design courses, therefore a 3000 level is appropriate.

**Assessment**

**Assessment Plan Modifications (Course Modifications Only)**

1. **Yes / No** Do the proposed modifications result in a change to the assessment plan?

*If yes, please complete the Assessment section of the proposal*

**Relationship with Current Program-Level Assessment Process (Course modifications skip this section unless the answer to #18 is “Yes”)**

1. What is/are the intended program-level learning outcome/s for students enrolled in this course? Where will this course fit into an already existing program assessment process?

This course will supplement the PSLO’s below, but will not fall under the current Taskstream Curriculum Map, as they would be part of the 38 hours of electives in the degree plan.

#1: SWBAT apply a working knowledge of digital design create a professional portfolio.

#2: SWABT apply the aesthetic skills required of a professional designer

1. Considering the indicated program-level learning outcome/s (from question #19), please fill out the following table to show how and where this course fits into the program’s continuous improvement assessment process.

*For further assistance, please see the ‘Expanded Instructions’ document available on the UCC - Forms website for guidance, or contact the Office of Assessment at 870-972-2989.*

|  |  |
| --- | --- |
| **Program-Level Outcome 1 (from question #19)** | SWBAT apply a working knowledge of digital design to create a professional portfolio. |
| Assessment Measure | **Direct Measure**:  Description: In Digital Innovations Portfolio, students present ≥ 10 professional-level works to a committee made up of Design Faculty and Faculty from the area of concentration. This is a capstone course designed to prepare students for entrance into professional practice.  Measure: Student applies subject knowledge to conceptualize, develop, and complete professional work that answers project objectives.  Faculty Scores students on multiple aspects of production (conceptualizing, development, completion) and intent (project objective, audience, purpose and context) on a scale from 1 to 5.  **Data Collection:** Each Measure is scored on a 5 point scale.  **Scale:** 1 being unacceptable, 2 poor performance, 3 average, 4 good, 5 high/excellent  **Data Analysis:** Successful students will score a combined average of 3.5 or higher.  **Indirect Measure**:  Description: In Digital Innovations Portfolio, students complete an exit survey. Alumni survey every 3 years. |
| Assessment  Timetable | In Portfolio Class, Year 1 (2020-2021) on a two-year cycle. |
| Who is responsible for assessing and reporting on the results? | Digital Innovations Faculty report to Assessment Chair |

|  |  |
| --- | --- |
| **Program-Level Outcome 2 (from question #19)** | SWABT apply the aesthetic skills required of a professional designer. |
| Assessment Measure | **Direct Measure**:  Description: In Digital Innovations Portfolio, students make an oral presentation and defend their professional portfolio in real time with a committee of Faculty representing all areas of the program.  **Measure:** Student can evaluate his/her outcomes based on critical, ethical, and aesthetic issues.  Question: Choose one of the works (or series/campaigns) that you presented and explain why you believe this is the best solution to the problem in the context of contemporary critical, ethical, and aesthetic issues.  **Data Collection:** Written and Oral Answers scored on a 5 point.  **Scale:** 1 being unacceptable, 2 poor performance, 3 average, 4 good, 5 high/excellent  **Data Analysis:** Successful students will score a combined average of 3.5 or higher.  **Indirect Measure**:  Description: In Digital Innovations Portfolio, students complete an exit survey. Alumni survey every 3 years. |
| Assessment  Timetable | In Portfolio Class, Year 2 (2021-2022) on a two-year cycle. |
| Who is responsible for assessing and reporting on the results? | Digital Innovations Faculty report to Assessment Chair |

*(Repeat if this new course will support additional program-level outcomes)*

**Course-Level Outcomes**

1. What are the course-level outcomes for students enrolled in this course and the associated assessment measures?

|  |  |
| --- | --- |
| **Outcome 1** | Student will apply problem-solving strategies. |
| Which learning activities are responsible for this outcome? | Weekly assignments, Final Project |
| Assessment Measure | Project rubrics based on technical skill, ability to follow directions, and a clear understanding of the subject matter. |

|  |  |
| --- | --- |
| **Outcome 2** | Student will demonstrate competency by creating and presenting animated and interactive infographics. |
| Which learning activities are responsible for this outcome? | Weekly assignments, Final Project |
| Assessment Measure | Project rubrics based on technical skill, ability to follow directions, and a clear understanding of the subject matter. |

|  |  |
| --- | --- |
| **Outcome 3** | Students will evaluate and utilize data through the use of computing devices and design software. |
| Which learning activities are responsible for this outcome? | Weekly assignments, Final Project |
| Assessment Measure | Project rubrics based on technical skill, ability to follow directions, and a clear understanding of the subject matter. |

**Bulletin Changes**

|  |
| --- |
| **Instructions** |
| **Please visit** [**http://www.astate.edu/a/registrar/students/bulletins/index.dot**](http://www.astate.edu/a/registrar/students/bulletins/index.dot) **and select the most recent version of the bulletin. Copy and paste all bulletin pages this proposal affects below. Please include a before (with changed areas highlighted) and after of all affected sections.**  **\*Please note: Courses are often listed in multiple sections of the bulletin. To ensure that all affected sections have been located, please search the bulletin (ctrl+F) for the appropriate courses before submission of this form.** |

**Undergraduate Bulletin 2020-2021, pp. 491-493**

**Current**

Graphic Design (GRFX)

**GRFX 1111. Design Technology** Basic levels of graphic design utilizing Adobe Illustrator, Adobe Photoshop, and Adobe InDesign software. Prerequisites: Declared Graphic Design Major, Co-requisite GRFX 2203 or instructor permission. Spring.

**GRFX 1112. Design Literacy** Introduction to design, color theory, typography and composition. Restricted to BS Digital Innovations students. Spring, Summer.

**GRFX 2103. Ideation** Focuses on the process of lateral thinking and the visualization of design problems and their solutions. Emphasizes effective research, imagination, originality, and execu­tion in various media. This course requires three or more hours per week outside of class. Fall, Spring.

**GRFX 2203. Introduction to Graphic Design** Graphic design application, career paths, and role in media and technology; layout, typography, media, color, photography, illustration and technology. This course requires three or more hours per week outside of class. Prerequisites, Graphic Design Major or instructor permission. Corequisite GRFX 1111. Fall, Spring.

**GRFX 2303. Typography and Layout** Craftsmanship, terminology and application of classical typography in traditional and digital print processes. This course requires three or more hours per week outside of class. Prerequisites, a grade of C or better in ART 1013 and GRFX 2203; or instructor permission. Corequisite, GRFX 3400. Fall, Spring.

**GRFX 2703. Interaction Design** Key principles and techniques of human-centered interaction design across a range of contexts including web; from touch screens to emerging digital products using voice and gesture interactions. This course requires three or more hours per week outside of class. Prerequisites, a grade of C or better in GRFX 2303; or instructor permission. Fall.

**GRFX 2783. Human Centered Design** Conceptualizing, prototyping and testing application inter­faces with a respect for the real needs and desires of human users. This course requires three or more hours per week outside of class. Restricted to BS Digital Innovations students. Prerequisites, a grade of C or better in GRFX 1111, GRFX 1112 and GRFX 2703. Spring.

**GRFX 3303. Intermediate Typography** Principles and practice of typography in complex situa­tions including creating visual narrative, designing typeface, and experimenting with typography. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in GRFX 2303 and a grade of CR in GRFX 3400; or instructor permission. Fall, Spring.

**GRFX 3400. Graphic Design Review** Portfolio review for BFA in Graphic Design admission. Prerequisites, a grade of C or better in ART 1013, ART 1023, ART 1033, ART 1043, ARTH 2583, ARTH 2593; a 2.75 GPA in all ART, ARTH, GRFX courses; and advisor permission required. Corequisite, GRFX 2303. Fall, Spring.

**GRFX 3503. Identity Design** Graphic design strategies using metaphors, iconography, and the creative process. Emphasis on problem solving using type and image and conceptual thinking. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in GRFX 2013, and CR in GRFX 3400. Fall, Spring.

**GRFX 3603. Advertising Design** Fundamentals of graphic design applied to the advertising industry and advertising designer’s role. Emphasis on ideation, art direction, and copywriting to communicate strategic marketing objectives to target markets. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in GRFX 2303 and a grade of CR in GRFX 3400, or instructor permission. Fall, Spring.

**GRFX 3703. Front End Web Development** Advanced HTML and CSS techniques; introduction to client-side web interactivity using the jQuery library. Student is required to create a full featured, graphic design portfolio website. This course requires three or more hours per week outside of class. Prerequisites, a grade of C or better in GRFX 2703 and GRFX 3303; CR in GRFX 3400. Spring.

**GRFX 3713. 3D Digital and Game Design** Beginning digital 3D content creation for use in ani­mation, fabrication, game design, and interactive digital environments. Includes textual analysis of video games and game mechanisms. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in ART 1023 and GRFX 2103; CR in GRFX 3400; or instructor permission. Fall.

**GRFX 3753. Motion Graphics** Design for screen focusing on effective use of typography, graphi­cal elements, sound, video and motion, including simple animations, logo and shape motion and environmental visual effects. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in GRFX 2703 and GRFX 3303; CR in GRFX 3400. Spring.

**GRFX 3783. Patterns in Application Design** User Experience Design with a focus on established design patterns of iOS and Android applications. This course requires three or more hours per week outside of class. Restricted to BS Digital Innovations students. Prerequisites, a grade of C or better in GRFX 1111, GRFX 1112, GRFX 2703 and GRFX 3713. Spring.

**GRFX 4103. Photography for the Graphic Designer** Study of photographic equipment, tech­niques and processes with emphasis on graphic design applications. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in ART 3403 and GRFX 3303; a grade of CR in GRFX 3400; or instructor permission. Fall.

**GRFX 4143. Advanced Photography for the Graphic Designer** This course offers advanced studies in photography as it is utilized in graphic design. Advanced studies in studio and site pho­tography and the application of photography to print and digital media. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in GRFX 4103; or instructor permission. Spring.

**GRFX 4213 Interactive Infographics** Advanced information design tools and techniques to create animated and interactive infographics. Prerequisite, a grade of C or better in GRFX 3613. Spring.

**GRFX 4503. Professional Practice for Design** Personal brand development, including visual identity, website, and social media strategy. Job-finding skills, including cover letter and résumé writing, interviewing, networking, legal issues, contracts, and overall professional communication. This course requires three or more hours per week outside of class. Prerequisites, a grade of C or better in GRFX 3303, GRFX 3503, GRFX 3603; CR in GRFX 3400; or instructor permission. Corequisite GRFX 4803. Spring.

**GRFX 4603. Graphic Design Internship** Supervised work in a professional graphic design or digital design setting. May be repeated for credit. Prerequisites, a grade of CR in GRFX 3400, a minimum GPA of 2.75 in all work with an ART, ARTH, ARED, or GRFX prefix, and permission of advisor, Graphic Design Internship Coordinator and department chair. Fall, Spring, Summer.

**GRFX 4613. Independent Study in Graphic Design** Faculty-guided study of graphic design topics for the advanced student. May be repeated for credit. Prerequisites, advisor and instructor permission. Fall, Spring.

**GRFX 4623. Special Topics in Graphic Design** Advanced studies on a topic in graphic design. May be repeated for credit. Prerequisite, a grade of CR in GRFX 3400; or instructor permission. Irregular.

**GRFX 4703. Advanced Digital Studio** Continuation of digital design work with an emphasis on development of personal direction. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisite, a grade of C or better in GRFX 3703. Fall.

**GRFX 4713. Design for Physical Computing** Design techniques relevant to physical com­puting and internet-of-things devices; emphasis on building novel and engaging human/machine interfaces and interactive data visualization programs. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, C or better in GRFX 3713, or instructor permission. Spring.

**GRFX 4773. Design Build I** User Experience Design focusing on the complete workflow of iOS app development. This course requires three or more hours per week outside of class. Restricted to BS Digital Innovations majors. Prerequisites, a grade of C or better in GRFX 3733 and GRFX 3783. Fall.

**GRFX 4783. Design Build II** Continuation of GRFX 4773. This course requires three or more hours per week outside of class. Restricted to BS Digital Innovations students. Prerequisites, a grade of C or better in GRFX 4773. Fall.

**GRFX 4792. Digital Innovations Portfolio** Professional portfolio presentation capstone. Re­stricted to BS Digital Innovations students. Prerequisites, a grade of C or better in GRFX 4783. Spring.

**GRFX 4803. Portfolio Capstone** Capstone course required for all graduating BFA, Graphic De­sign emphasis students. Preparation of portfolio of graphic design solutions that demonstrate the students overall knowledge and special skills. Prerequisite, advisor, instructor and chair permission, minimum GPA of 2.75 in all course work with an ART, ARTH, ARED, or GRFX prefix. Corerequisite, GRFX 4503. Spring.

**GRFX 4813. Digital Design Portfolio Capstone** Development of an online portfolio and addi­tional digital assets as well as job-seeking skills such as interviewing and networking in preparation for professional practice. Restricted to BFA in Graphic Design with an emphasis in Digital Design. Prerequisites, advisor and instructor permission, minimum GPA of 2.75 in all course work with an ART, ARTH, ARED, or GRFX prefix. Spring.

**Proposed**

Graphic Design (GRFX)

**GRFX 1111. Design Technology** Basic levels of graphic design utilizing Adobe Illustrator, Adobe Photoshop, and Adobe InDesign software. Prerequisites: Declared Graphic Design Major, Co-requisite GRFX 2203 or instructor permission. Spring.

**GRFX 1112. Design Literacy** Introduction to design, color theory, typography and composition. Restricted to BS Digital Innovations students. Spring, Summer.

**GRFX 2103. Ideation** Focuses on the process of lateral thinking and the visualization of design problems and their solutions. Emphasizes effective research, imagination, originality, and execu­tion in various media. This course requires three or more hours per week outside of class. Fall, Spring.

**GRFX 2203. Introduction to Graphic Design** Graphic design application, career paths, and role in media and technology; layout, typography, media, color, photography, illustration and technology. This course requires three or more hours per week outside of class. Prerequisites, Graphic Design Major or instructor permission. Corequisite GRFX 1111. Fall, Spring.

**GRFX 2303. Typography and Layout** Craftsmanship, terminology and application of classical typography in traditional and digital print processes. This course requires three or more hours per week outside of class. Prerequisites, a grade of C or better in ART 1013 and GRFX 2203; or instructor permission. Corequisite, GRFX 3400. Fall, Spring.

**GRFX 2703. Interaction Design** Key principles and techniques of human-centered interaction design across a range of contexts including web; from touch screens to emerging digital products using voice and gesture interactions. This course requires three or more hours per week outside of class. Prerequisites, a grade of C or better in GRFX 2303; or instructor permission. Fall.

**GRFX 2723. Virtual Reality Concepts** Introduction to VR and AR career opportunities, techniques, and technologies. Focus on the design principles and challenges of virtual reality content creation. Prerequisite, a grade of C or better in GRFX 2223. Fall.

**GRFX 2783. Human Centered Design** Conceptualizing, prototyping and testing application inter­faces with a respect for the real needs and desires of human users. This course requires three or more hours per week outside of class. Restricted to BS Digital Innovations students. Prerequisites, a grade of C or better in GRFX 1111, GRFX 1112 and GRFX 2703. Spring.

**GRFX 3303. Intermediate Typography** Principles and practice of typography in complex situa­tions including creating visual narrative, designing typeface, and experimenting with typography. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in GRFX 2303 and a grade of CR in GRFX 3400; or instructor permission. Fall, Spring.

**GRFX 3400. Graphic Design Review** Portfolio review for BFA in Graphic Design admission. Prerequisites, a grade of C or better in ART 1013, ART 1023, ART 1033, ART 1043, ARTH 2583, ARTH 2593; a 2.75 GPA in all ART, ARTH, GRFX courses; and advisor permission required. Corequisite, GRFX 2303. Fall, Spring.

**GRFX 3503. Identity Design** Graphic design strategies using metaphors, iconography, and the creative process. Emphasis on problem solving using type and image and conceptual thinking. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in GRFX 2013, and CR in GRFX 3400. Fall, Spring.

**GRFX 3603. Advertising Design** Fundamentals of graphic design applied to the advertising industry and advertising designer’s role. Emphasis on ideation, art direction, and copywriting to communicate strategic marketing objectives to target markets. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in GRFX 2303 and a grade of CR in GRFX 3400, or instructor permission. Fall, Spring.

**GRFX 3703. Front End Web Development** Advanced HTML and CSS techniques; introduction to client-side web interactivity using the jQuery library. Student is required to create a full featured, graphic design portfolio website. This course requires three or more hours per week outside of class. Prerequisites, a grade of C or better in GRFX 2703 and GRFX 3303; CR in GRFX 3400. Spring.

**GRFX 3713. 3D Digital and Game Design** Beginning digital 3D content creation for use in ani­mation, fabrication, game design, and interactive digital environments. Includes textual analysis of video games and game mechanisms. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in ART 1023 and GRFX 2103; CR in GRFX 3400; or instructor permission. Fall.

**GRFX 3723. Virtual Reality Filmmaking** Creation, editing and publishing of 360-degree immersive video content using industry standard software and equipment. Prerequisite, a grade of C or better in GRFX 1113. Spring.

**GRFX 3753. Motion Graphics** Design for screen focusing on effective use of typography, graphi­cal elements, sound, video and motion, including simple animations, logo and shape motion and environmental visual effects. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in GRFX 2703 and GRFX 3303; CR in GRFX 3400. Spring.

**GRFX 3783. Patterns in Application Design** User Experience Design with a focus on established design patterns of iOS and Android applications. This course requires three or more hours per week outside of class. Restricted to BS Digital Innovations students. Prerequisites, a grade of C or better in GRFX 1111, GRFX 1112, GRFX 2703 and GRFX 3713. Spring.

**GRFX 4103. Photography for the Graphic Designer** Study of photographic equipment, tech­niques and processes with emphasis on graphic design applications. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in ART 3403 and GRFX 3303; a grade of CR in GRFX 3400; or instructor permission. Fall.

**GRFX 4143. Advanced Photography for the Graphic Designer** This course offers advanced studies in photography as it is utilized in graphic design. Advanced studies in studio and site pho­tography and the application of photography to print and digital media. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, a grade of C or better in GRFX 4103; or instructor permission. Spring.

**GRFX 4213 Interactive Infographics** Advanced information design tools and techniques to create animated and interactive infographics. Prerequisite, a grade of C or better in GRFX 3613. Spring.

**GRFX 4503. Professional Practice for Design** Personal brand development, including visual identity, website, and social media strategy. Job-finding skills, including cover letter and résumé writing, interviewing, networking, legal issues, contracts, and overall professional communication. This course requires three or more hours per week outside of class. Prerequisites, a grade of C or better in GRFX 3303, GRFX 3503, GRFX 3603; CR in GRFX 3400; or instructor permission. Corequisite GRFX 4803. Spring.

**GRFX 4603. Graphic Design Internship** Supervised work in a professional graphic design or digital design setting. May be repeated for credit. Prerequisites, a grade of CR in GRFX 3400, a minimum GPA of 2.75 in all work with an ART, ARTH, ARED, or GRFX prefix, and permission of advisor, Graphic Design Internship Coordinator and department chair. Fall, Spring, Summer.

**GRFX 4613. Independent Study in Graphic Design** Faculty-guided study of graphic design topics for the advanced student. May be repeated for credit. Prerequisites, advisor and instructor permission. Fall, Spring.

**GRFX 4623. Special Topics in Graphic Design** Advanced studies on a topic in graphic design. May be repeated for credit. Prerequisite, a grade of CR in GRFX 3400; or instructor permission. Irregular.

**GRFX 4703. Advanced Digital Studio** Continuation of digital design work with an emphasis on development of personal direction. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisite, a grade of C or better in GRFX 3703. Fall.

**GRFX 4713. Design for Physical Computing** Design techniques relevant to physical com­puting and internet-of-things devices; emphasis on building novel and engaging human/machine interfaces and interactive data visualization programs. This course requires three or more hours per week outside of class. May be repeated for credit. Prerequisites, C or better in GRFX 3713, or instructor permission. Spring.

**GRFX 4773. Design Build I** User Experience Design focusing on the complete workflow of iOS app development. This course requires three or more hours per week outside of class. Restricted to BS Digital Innovations majors. Prerequisites, a grade of C or better in GRFX 3733 and GRFX 3783. Fall.

**GRFX 4783. Design Build II** Continuation of GRFX 4773. This course requires three or more hours per week outside of class. Restricted to BS Digital Innovations students. Prerequisites, a grade of C or better in GRFX 4773. Fall.

**GRFX 4792. Digital Innovations Portfolio** Professional portfolio presentation capstone. Re­stricted to BS Digital Innovations students. Prerequisites, a grade of C or better in GRFX 4783. Spring.

**GRFX 4803. Portfolio Capstone** Capstone course required for all graduating BFA, Graphic De­sign emphasis students. Preparation of portfolio of graphic design solutions that demonstrate the students overall knowledge and special skills. Prerequisite, advisor, instructor and chair permission, minimum GPA of 2.75 in all course work with an ART, ARTH, ARED, or GRFX prefix. Corerequisite, GRFX 4503. Spring.

**GRFX 4813. Digital Design Portfolio Capstone** Development of an online portfolio and addi­tional digital assets as well as job-seeking skills such as interviewing and networking in preparation for professional practice. Restricted to BFA in Graphic Design with an emphasis in Digital Design. Prerequisites, advisor and instructor permission, minimum GPA of 2.75 in all course work with an ART, ARTH, ARED, or GRFX prefix. Spring.