Bachelor of Graphic Arts (BGA)
Web & Interactive Design

Graphic Design Program

In today's fast-changing world of technology, the Bachelor of Graphic Arts in Web and Interactive Design, will take a new student, without any graphic design experience, and prepare them to enter the professional ranks of a website designer and work in the interactive design industry.

The demand for online, mobile, wearable, animation and multi-touch screen device development are what today's employers are looking for in candidates who possess knowledge in an evolved technical platform. These new skills meet the modern advances in both electronic devices and digital media that designers now work within including front/back end development for web, interactive scripting languages, user interface design, user experience strategies, tablet and online publishing, mobile application development, social media integration and knowledge in motion graphics.

The traditional platform of web design has dramatically evolved with new technologies in communication and the need to develop quality applications continues to rise. In this program, graduates will gain expertise to meet the capability requirements for evolving or new career opportunities within the industry—making them highly successful as web and interactive designers in their ever-changing field.

Graphic Design Program Structure

This study includes a strong curriculum designed to teach and train individuals who plan to be professional web and interactive designers.

Graduates of the Web and Interactive Design Program are qualified to seek employment in a diverse industry including, but not limited to: advertising agencies, design firms, web and mobile design agencies, TV/cable networks, movie production and post production companies as well as book, magazine and newspaper publishers in mobile and online applications. Some enterprising graduates seek self-employment as freelance commercial artists.

All 133-semester hours must be successfully completed with a minimum 2.0 grade point average to qualify for graduation.

The usual duration of the Bachelor of Graphic Arts (BGA) program in Web and Interactive Design is 11 semesters (44 months). Graduates of the program complete 133 credit hours and earn a Bachelor of Graphic Arts (BGA) degree in Web & Interactive Design. This curriculum will prepare graduates for a variety of employment opportunities.

Course Number	Course Title	Credit Hours
GENERAL EDUCATION COURSES		
SS 104	SUCCESS STRATEGIES	4
PL 103	PHILOSOPHY	4
PS 108	PSYCHOLOGY	4
MTH 300	CONTEMPORARY MATH	3
AH 212	ART HISTORY/APPRECIATION	4
HWC 301	HISTORY OF WESTERN CIVILIZATION	4
ES 300	EARTH SCIENCES: THE HUMAN ENVIRONMENT	3
LIT 211	LITERATURE	4
EN 270	ENGLISH	4
EN 280	ENGLISH: WRITTEN AND ORAL COMMUNICATION	3
COURSES OF MAJOR		
DC 102	DESIGN COMPOSITION	3
CT 105	COLOR THEORY	3
AI 140	ADOBE ILLUSTRATOR	3
APS 142	ADOBE PHOTOSHOP	3
TY 110	TYPOGRAPHY	3
GD 115	GRAPHIC DESIGN FUNDAMENTALS	3
PL 250	INTERACTIVE PAGE LAYOUT	3
WD 285	WEB LANGUAGE I	3
ID 280	INTERACTIVE DESIGN I	3
UI 302	USER INTERFACE (UI) AND WIREFRAMING	3
WD 290	WEB LANGUAGE II	3
GD 220	GRAPHIC DESIGN PROCESSES	3
WD 290	WEB DESIGN MARKETING AND SEO	3
SM 280	SOCIAL MEDIA DESIGN	3
ID 290	INTERACTIVE DESIGN II	3
WD 295	WEB AESTHETICS DEVELOPMENT	3
MG 250	MOTION GRAPHICS	3
SBM 275	SMALL BUSINESS MANAGEMENT	3
MA 260	MOBILE APPLICATIONS	3
MG 360	ADVANCED MOTION GRAPHICS	3
APS 342	ADOBE FOR WEB	3
ID 330	INTERACTIVE DESIGN III	3
WD 370	NETWORKS AND SERVER STRUCTURES	3
MA 375	ADVANCED MOBILE APPLICATIONS	3
SM 380	ADVANCED SOCIAL MEDIA	3
PL 350	DIGITAL PUBLISHING	3
GD 310	GAME DEVELOPMENT	3
BUS 400	BUSINESS OF WEB & INTERACTIVE	3
MG 470	MOTION GRAPHICS MEDIA	3
WD 475	WEB APPLICATION INTEGRATION	3
WD 420	WEB & INTERACTIVE DESIGN CAPSTONE	3
IS 440	INDEPENDENT STUDY (optional)	1-4
BUS 450	PORTFOLIO AND PROMOTION	3
	TOTAL CREDIT HOURS	**133**

General Education Courses

EN 280 ENGLISH: WRITTEN AND ORAL COMMUNICATION

This course is designed to provide the student with instruction in two major areas of the English language – writing skills and oral communication skills. Writing techniques that use correct English grammar will be emphasized and will be applicable for different environments including corporate, business and professional settings. A variety of public speaking techniques will also be taught. The student will learn what is appropriate for each situation in which, as a professional artist, he might find himself.

PL 103 PHILOSOPHY

This course examines creative issues and thinkers in the philosophical tradition. The course will be a combination of lecture and discussion and will focus on questions from four main areas of philosophy: metaphysics, epistemology, ethics and aesthetics.

PS 108 PSYCHOLOGY

This is a survey course of the science of psychology. It covers the key terms of most of the psychological concepts from brain biology to abnormal, motivational and developmental psychology. This course surveys a broad field of study. A study of the thinking and research behind various fields of psychology will lead to discussions on how each field applies to human events in the everyday lives. An examination of how psychology applies to advertising, graphic arts, illustration and photography will be made.

MTH 300 CONTEMPORARY MATH

Students will examine common uses of mathematics in everyday life. This course will also focus upon mathematical applications involving choice, voting systems, routing and networks, project scheduling, descriptive and inferential statistics and probability.

AH 212 ART HISTORY/APPRECIATION

This course provides a broad coverage of the history of art from prehistoric cave painting through modern times. Students learn from lectures, slide presentations, outside reading as well as reading the assigned class textbook. The students in this course are taught art appreciation, art history, terminology, artists and art styles and the characteristics that distinguish individual artists and styles. At the conclusion of this course students are expected to be able to identify different art works and then name the period, the style, its characteristics, influences and the artist.

HWC 301 HISTORY OF WESTERN CIVILIZATION

This course presents students with a survey of Western Civilization from the ancient world to contemporary culture. Through discussion and appreciation of historical works, students will draw connections between the origins and influences of Western Civilization, as well as an understanding of its role in shaping cultures.

ES 300 EARTH SCIENCES: THE HUMAN ENVIRONMENT

This GE requirement was established, in part, because of the potent influence of science on society. Therefore, a major objective of this course is to help develop an understanding of the nature of science, including its philosophical basis, power and limitations. The content of the course is centered on life and its relationship to the environment.

LIT 211 LITERATURE

This class is designed to enhance the student's understanding and exposure to literature. Readings will come from the pdf files on the portal as well as from handouts from the instructor. A novel reading is required and each student will read and analyze a different novel from a list provided by the instructor. Readings from different genres and cultures will include short stories, poetry and drama. Essays to analyze the readings are the method of assessment as well as tests over the readings and background materials.

EN 270 ENGLISH

This English class will include intensive grammar review as well as writing assignments to complete a portfolio. Illustrations are encouraged to enhance the writing and the portfolio (these will add points to the grade). A resume and a cover letter are a separate part of the writing. A research paper is required and must have the correct documentation and analysis format. Professional presentation of final portfolio is required for completion of this course.

SS 104 SUCCESS STRATEGIES

Success Strategies is a course in goal setting, techniques of note and test taking, problem solving skills, time management and critical thinking skill development. The course is designed to help each student improve his learning skills. In addition, students will acquire skills necessary to succeed as commercial artists. Life enhancing principles are also a major aspect of this course.

Courses of Major

DC 102 DESIGN COMPOSITION

Students are introduced to the principles of design using a variety of media as they complete projects that emphasize various aspects of composition. They will learn about balance, repetition of shape, positive and negative space, focal point, the illusion of depth and motion.

CT 105 COLOR THEORY

Students are introduced to the principles of color theory utilizing various affects, techniques and mediums to create a comprehensive understanding of color principles. Light, hue, value and saturation are all explored in the course and students will learn many aspects of color relationship, application and how to affectively utilize the many facets of color and color theory in the commercial art field.

AI 140 ADOBE ILLUSTRATOR

For any undertaking in print or digital media, understanding and manipulating vector graphics will be a cornerstone of every student's academic and professional career. In Adobe Illustrator, students will learn the leading industry standard software for vector-based design. Upon completion, students will know how to leverage the software to assist in whatever their chosen path of digital or print media: graphic design, web design, interactive design, illustration or even videography -- among other career tracks. To achieve this comprehension, students will create their own designs, many of which will be based on real-world problems students will face on the job. Printing, color and design techniques (the latter learned in previous courses) will be integrated for completion of the various projects.

APS 142 ADOBE PHOTOSHOP

This course teaches students core principles of Adobe Photoshop, the industry-standard raster-based photo manipulation program. Similar to Adobe Illustrator in significance and industry dominance, the ability to manipulate raster images will be a persistent theme throughout any career path involving print or digital media. Among the fundamental concepts explored will be file type constraints, image optimization, compositing, image restoration, color correction, masking, typography, effects, layout, print management, elementary animation and video and even elementary 3D principles among other topics. By the end of the course, students will have a broad enough understanding of Photoshop to competently utilize it in whatever their chosen course of study.

TY 110 TYPOGRAPHY

Students will study the history of lettering from ancient symbols to today's digital technology. Students will also study various type families, become familiar with the terminology and practice the art of hand lettering. Students will learn the art of designing with type and become familiar with different 'moods' or the feel type can have for different occasions. Students will also learn different styles of type used throughout history. Emphasis on rules for proper letter spacing, word spacing and the arrangement of type for maximum readability will be stressed.

GD 115 GRAPHIC DESIGN FUNDAMENTALS

Students will explore the theory of aesthetics and design concepts as it applies to graphics. It will also encompass a detailed investigation into the principles and concepts of effective visual communications through the use of two- and three-dimensional design with a goal of creative problem solving. There is also an emphasis in Information Gathering, Step 1 of the Nossi 9 step creative process and commercial application of designing corporate graphics such as logos and symbol designs.

PL 250 INTERACTIVE PAGE LAYOUT

Adobe InDesign is used to create both print and interactive layouts for single and multi-page ads, magazines, brochures and books, as well as other print projects that need exact typographic and layout specifications. InDesign's interactive PDFs and Apps for tablet devices and e-pubs give designers a range of abilities within this one program. In this course, the student will focus on how to employ InDesign to create interactive page layout applications. From the feature tools used within InDesign to the understanding of basic User Interface design (UI) and User Experience design (UX), the student will gain the necessary knowledge to implement this skill-set within their career.

WD 285 WEB LANGUAGE I

Knowledge of basic Web Design is rapidly becoming a prerequisite skill in many technology-oriented occupations. Whether with desktop, mobile or wearable devices, the pace of technology is increasingly demanding a general understanding of basic Web Languages and processes. This is true even in occupational paths not traditionally explicitly involved with web development. In this course, students will expand the concepts learned in UI-140, such as the ability to recognize and recreate contemporary design styles, prototyping processes and usability techniques. Continuing with this, students will be introduced to the basic web development cycle and learn the languages and technologies of implementing their prototyping abilities to create functional web sites. Beginning with learning code editors and other trending web design tools, students will continue to gain proficiency in web programming languages such as HTML5 and CSS3, page layout for the screen, graphic optimization, basic web animations and authoring web pages to the Internet. By the end of the course, students

should feel comfortable with the complete basic development cycle from prototype to published website. Additionally, regardless of their chosen career path, students will feel competent to edit existing web content.

ID 280 INTERACTIVE DESIGN I

Interactive Design represents a critical and rapidly evolving construct of the overall Internet user experience. Pacing with current industry standards means evolving beyond static web content to web pages and applications that can offer more dynamic user experiences with interactivity and animation. While the concept of Interactive Design embodies a broad spectrum of techniques and methodologies, the scope of this class will be limited to those most prevalent for basic web design. Students will expand on their prerequisite knowledge of Web Language I to gain proficiency in basic javascript, related libraries such as jQuery, and additional CSS3 and HTML5 technologies. Currently, Interactive Design is in state of rapid maturation. In keeping with this, students will learn a number of different relevant toolsets for developing interactive content, from code editors, to graphical integrated development environments. By the end of this course, students will have built their own web applications, animations, widgets, advertisements and other interactive content for multiple platforms and devices through use of HTML5, CSS3 and Javascript.

UI 140 USER INTERFACE AND USER EXPERIENCE DESIGN

Whether with web pages, mobile and web applications, computer-based instructional material or digital design in general, developers need the ability to construct within established and proven usability and design principles in order to develop effectively. In this course, in addition to learning usability fundamentals including learnability, visibility, error prevention, efficiency and solid interface design, students will also learn how to use associated prototyping tools to create both low-fidelity and high fidelity prototypes. In addition, students will learn techniques for evaluating and conducting empirical research on the effectiveness of their user interface designs through predictive evaluation, usability testing, and focus groups.

WD 290 WEB LANGUAGE II

Expanding on web languages and technologies learned in Web Language I, students will go beyond basic HTML5 and CSS3. In addition to learning more advanced constructs of each of the languages, students will learn a number of additional tools for advanced web development including relevant HTML5 and CSS3 frameworks, CSS preprocessors, Content Management Systems (CMS), a brief overview of server-side scripting languages such as PHP as well as advanced techniques for responsive design. By the end of the course, students will be able to fully develop a responsive website from a prototype, integrate it into a content management system using php frameworks and author it to the web.

GD 220 GRAPHIC DESIGN PROCESSES

This course is a continuation of Graphic Design Fundamentals as it continues to develop an understanding of the creative process. Emphasis is on conceptual execution with diverse projects including simple packaging, ads, posters, print design and brand identity. The course focuses on how people see and arrange visual information into a meaningful whole. Students will also get a "deep-dive" into specialized printing materials and techniques, design terminology, digital design and the business of design.

WD 310 WEB DESIGN MARKETING AND SEO

Having gained the skills to create and author websites in previous web and interactive design courses, in this course students will focus on the post-development processes: marketing and maintenance of the usage
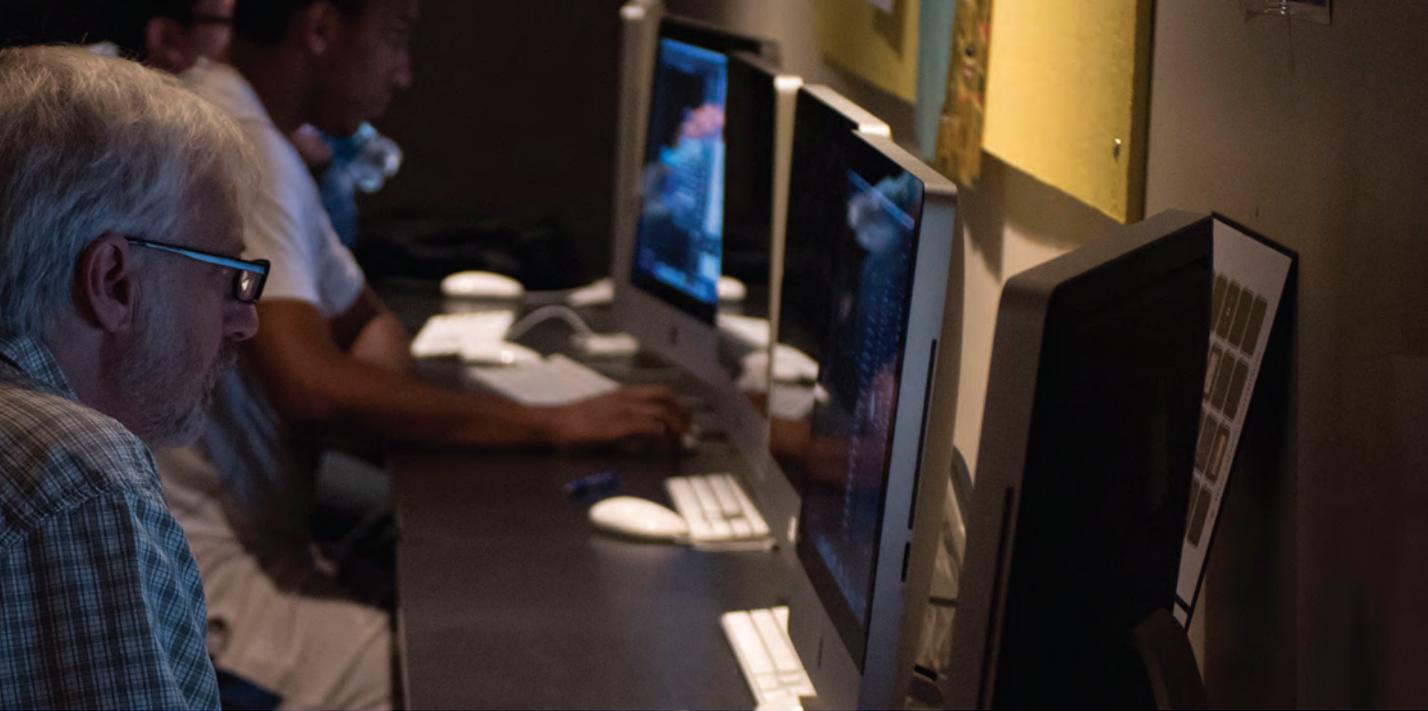
Course Descriptions for Web & Interactive Design (BGA)

health of existing websites. Without strategies for acquiring, analyzing and maintaining traffic, any web development project would be rendered invisible, and consequently, ineffective. In this course, students will learn proper strategies for SEO (Search Engine Optimization), which involves the technical and creative processes necessary to improve ranking among search engines, drive traffic and maintain an overall awareness of your site through organic (non-paid) results. In addition, students will explore marketing strategies and effectiveness of non-organic results, advertising campaigns and social media avenues.

SM 280 SOCIAL MEDIA DESIGN

Designing for online isn't just limited to a brand's website anymore. Social communities like Facebook and Twitter have allowed brands to communicate with their audiences in a new way. Students taking this course will learn the challenges and limitations of designing for these commonly used online sites as well as the history and theory of online social interaction. This unique course will help students gain valuable knowledge of evolving digital media development and user interface design to help them not only know how to design for currently popular online services but also to adapt to the constantly changing social media landscape.

ID 290 INTERACTIVE DESIGN II

This course will facilitate an intermediate understanding of design principles, creativity and innovation as translated through an intermediate understanding of various web-programming languages. Students transitioning from earlier courses should anticipate expanding their knowledge of HTML5, CSS3 and Javascript to more comprehensive applications. With a primary emphasis on intermediate scripting language for the web, students will go beyond their elementary understanding of Javascript to learn advanced web animation techniques; basic terminal usage; implementation of Javascript build tools; task runners; dependency management; various relevant Javascript frameworks; libraries beyond jQuery; as well as repository hosting and version control. By the end of the course, students will have the confidence and experience to build custom web applications and add dynamic user experiences to their existing knowledge of web design.

WD 295 WEB AESTHETICS DEVELOPMENT

In this course, students will synthesize their understanding of concepts learned in user interface design, web languages, and interactive design courses for the intent of reinforcing their foundation in Web Aesthetics. In this course, students will examine advanced concepts in web aesthetics in the context of functionality. In essence, students will learn to better solve design challenges without compromising content, performance, or usability. Innovation and artistry will be the primary objective, and the medium will be the collective understanding of associated web languages. By the end of the course, students will have an array of original and innovative web projects to add to their professional portfolio that elevate beyond traditional design standards or conventions.

MG 250 MOTION GRAPHICS

With the demand for motion graphics in all aspects of marketing, communication, and content production on the rise, the ability to manipulate graphical assets with respect to a timeline is invaluable. Whether a graphic designer, web developer, videographer or anyone in any creative field, knowledge of graphical animation and presentation will improve the information provided and enable designers, developers or supervisors to make better decisions. This course is designed to expose students to conventional animation practices used in the creation of professional motion graphics content. Animation fundamentals and elementary concepts such as basic editing, compositing, filters and effects, color correction, typography animation, motion tracking, chroma key footage manipulation, rotoscoping, masking and easing will be explored using industry standard software and techniques.

SBM 275 SMALL BUSINESS MANAGEMENT

In this course, students learn the skills and procedures necessary to start a successful freelance operation by learning advantages and disadvantages of freelancing. They will learn what steps are necessary to protect their creative property and ensure that they are paid according to their skills and demand. Ethical standards as well as moral standards will be explored in order that students may understand fair competition in the freelance world. Governmental regulations, licenses and taxes will be explained.

MA 260 MOBILE APPLICATIONS

Currently, we are well past consideration of the Mobile experience as an afterthought. Mobile device Internet usage has now eclipsed desktop usage, with no indication of the trend's reversal. Recent statistics indicate mobile media time has increased to 51% compared to desktop's 42%, with the average user spending more than 37 hours a month using applications on a mobile device. For a developer, this makes the ability to create functional, content-driven experiences for the mobile device a necessity rather than novelty. In this course, students will be primed in the various technologies for

creating both hybrid and native applications, as well as gain an intermediate understanding of cross-platform development with HTML5. In this introductory course, the students should better understand the constraints, limitations and advantages for developing in the mobile arena. By the end of this course, students will be able to prototype, develop, and deploy to a device a functional hybrid application.

MG 360 ADVANCED MOTION GRAPHICS

In this advanced course, students will further advance their understanding of professional motion graphics. Beyond the basics, students will gain more in-depth exposure to compositional awareness, typography and title sequence animation, short film narratives, animatics and information visualization. While addressing these concepts, students will add to their technical skillsets proficiency with particle emitters, expressions, 3D animation, lighting and materials, plugins and a number of other advanced techniques for professional quality motion graphics presentations.

WD 385 ADOBE FOR WEB AND INTERACTIVE

Currently, there are over 20 desktop and mobile products and services that, when used in combination, can greatly improve the workflow and productivity of any graphic, web or interactive design project. Beyond Photoshop and Illustrator, students will leverage adobe's suite of applications even further, exploring new tools for conceptualization and collaboration on large projects, improved prototyping speed and capabilities, creation and improved optimization of animations and graphical assets, creation of online portfolios and networking utilities, video and audio optimization and webcasting capabilities. Through better understanding of the arsenal of tools at their disposal, students will leave the course better equipped to create and manage any graphic, web or interactive design project throughout the duration of their academic and professional career.

ID 390 INTERACTIVE DESIGN III

Following two preceding courses of interactive design, this course will press students further into programming languages, expanding on the clarity of understanding and variety of known libraries, frameworks and tools available for development. Additionally, students will venture outside of application development for browsers to explore possibilities of interactive design for wearable technology, television, streaming media devices and other hardware.

WD 370 NETWORKS AND SERVER STRUCTURES

Even for a front-end developer, the need for a basic understanding of the relationship between the client-side and the server-side is paramount. Whether developing server-side applications oneself or in the event of a need to communicate with server-side developers in a team production environment, a front-end developer's ability will always be hindered without this proper context. In this course, students will penetrate the server-side in more depth and better grasp its basic constructs: HTTP servers, Application servers and Databases, as well as understand how they communicate with the client. Students will be able to take their web and app development abilities to the next level through the integration of content-driven server-side application into their existing front-end skill sets. The primary server-side languages and programming environments focused on in this course will be php and node.js.

MA 360 ADVANCED MOBILE APPLICATIONS

Having previously explored hybrid HTML5 mobile applications in the beginning mobile applications course, in this course, the primary focus will be shifted towards platform specific development. Students will build native applications for Android and iOS in their respective integrated development environments -- Android Studio and XCode. This course will also familiarize students with elementary constructs of the native languages of each IDE: Java for Android Studio and Swift for XCode. By the end of this course, students will have developed fully functional native applications for both platforms. These will be added to each student's portfolio.

SM 380 ADVANCED SOCIAL MEDIA

After advancing past basic social User Interface (UI) structures using familiar social media applications from the previous social media course, in this course students will expand their abilities to programmatically build custom solutions for unique social media challenges. Students will synthesize their skills to build and use social media Application Programming Interfaces (API) and Mashups (hybrids of complementary API's) for various networks. Concepts such as social media account association, real-time network monitoring and data aggregation, contextual sharing solutions, analytics and API integration into web applications will be covered.
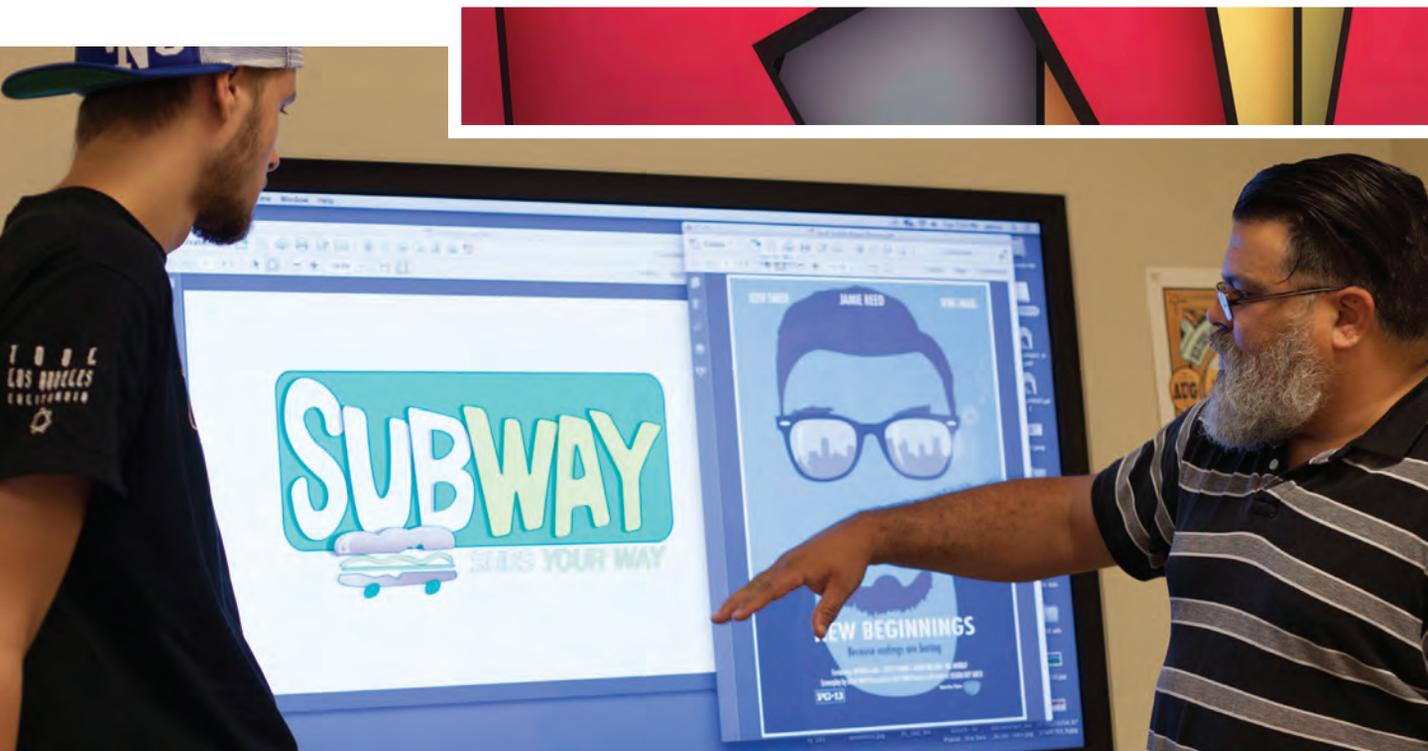
PL 350 DIGITAL PUBLISHING

With the skills learned from the previous print and interactive page layout courses, students will continue to develop layout techniques for tablet and online publishing -- using applications designed for interactive User Interface (UI) solutions. This includes knowledge in production development by deploying contextual elements within "wrappers" to requesting certificates from Digital Publishing Solutions (DPS) on both IOS and Android platforms for access within "Store" environments for consumer use.

GD 390 GAME DEVELOPMENT

In this course, students will leverage their existing user interface design, advanced programing, motion graphics, and 3D modeling skills to build 2D and 3D games for consumer markets. Using existing knowledge of javascript, students will explore integrated development environments (IDE's) such as Unity to create 2D, as well as 3D, cross-platform games for desktop, mobile, or even console devices.

BUS 400 BUSINESS OF WEB & INTERACTIVE DESIGN (WEB & PROJECT MANAGEMENT)

In this course, students will explore the idiosyncratic challenges of the business side of web and interactive design industry specifically. Proposals, pricing, contracts, marketing, client relations, and a number of other topics will all be addressed specifically within the context of web and application development. This course is intended to prepare students, whether they are prospects for freelancing or prospects for working in a team production environment, for that future career. Emphasis will be placed on project management, production schedule and workflow. By the end of this course, students will have successfully proposed, developed and managed a complete project from start to finish.

MG 420 MOTION GRAPHICS MEDIA

Motion design is more than just animation and effects. Beyond creation of animated assets there exist a different, yet equally significant, demand for knowledge of application and deployment for diverse media. In this course, students will learn to expand on their media integration and deployment techniques to achieve even more unique and pragmatic professional motion graphics productions. More specifically, students can expect to integrate skills derived from previous motion graphics, interactive design, web design and a number of other related courses in digital media to create an even more diverse array of solutions to Motion Graphics challenges. Projects will include commercials for television and web, animations for interactive design applications, event presentations and more. In addition, students can also expect to be introduced to new relevant skills such as fundamentals in audio engineering, voice-overs and music beds, advanced chroma key editing, device and media-specific performance optimization and a multitude of other skills for individual and team projects.

WD 475 WEB APPLICATION INTEGRATION

Building on advanced web and interactive design skillsets as well as basic competencies with server structures, students will reach beyond academic theory and migrate towards creating real-world web application solutions. Every stage, from problem analysis and definition, design, development, testing and deployment will be visited in both individual and group production environments. By the end of this course, students should feel confident analyzing and addressing web application challenges. They should also expand their portfolios to demonstrate their understandings of these processes.

WD 420 WEB & INTERACTIVE DESIGN CAPSTONE

This final web design course is designed to display the knowledge and talent representative of the student's cumulative abilities in completion of the BGA program. Aggregating all of their skillsets, students will independently research and evaluate a specific personal or consumer need for a website or application, propose and address a solution, address marketing strategies and deployment, as well as address monetization concerns. In doing so, students should have material evidence of their market value as a developer and designer to showcase to prospective employers and clients.

IS 440 INDEPENDENT STUDY

Independent study courses are individually designed to meet specific needs of students. They may vary from one to four semester hours of credit. They may be in any subject area a student needs in order to complete degree requirements. Independent study courses must be approved by a member of the Faculty, the student's Department Coordinator and by the Vice President of Academic Affairs.

BUS 450 PORTFOLIO AND PREPARATION

This course provides students who are about to graduate the Bachelor degree program In Web and Interactive Design an opportunity to explore the presentation and interviewing techniques used to find employment. Positive self-image and goal setting concepts are reintroduced. Students are also expected to produce their own professional quality work for their portfolios. Students must participate in a formal portfolio presentation of their work to the community and to their fellow students. They are given instructions in portfolio presentation, preparation of their own resumes, both print and electronic, cover letters and promotional materials, both print and electronic.