DESIGN

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Undergraduate Degrees

BDes–Visual Communication Design (http://catalog.ewu.edu/science-technology-engineering-mathematics/design/design-bdes/)

BFA–Visual Communication Design (http://catalog.ewu.edu/science-technology-engineering-mathematics/design/visual-communication-design-bfa/)

Minor–Design (http://catalog.ewu.edu/science-technology-engineering-mathematics/design/design-minor/)
Certificate–User Experience Design (http://catalog.ewu.edu/science-technology-engineering-mathematics/design/user-experience-design-certificate/)

Required courses in these programs of study may have prerequisites. Reference the course description section for clarification.

Faculty

Mindy Breen, Sonja Durr, Eric Galey, Ginelle Hustrulid, P. Colin Manikoth, Travis Masingale, Tyreil Poosri, Breanna White

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Undergraduate Programs

Students studying in the Department of Engineering & Design may select from a broad number of disciplines that include Electrical Engineering, Mechanical Engineering Technology, Mechanical Engineering, Visual Communication Design, Construction, Design and Manufacturing. The primary goal of the Department of Engineering & Design is to provide students with the technical background required for careers in business and industry. Coursework within each program offers experiences in many areas of engineering and design that enhance the preparation of our graduates.

Engineering & Design Departmental Scholarship Information

The department awards two scholarships annually: the M. W. Consulting Engineering Scholarship and Aaron G. Mertens memorial scholarship. These scholarships are awarded to our majors based on academic qualifications and need.

Admissions Information for Engineering & Design

Students entering the Bachelor of Science degree program as juniors should have completed one year of physics as well as mathematics through precalculus. Failure to complete the mathematics and physics requirements before the junior year likely will delay graduation.

Design Courses

DESN 100. DRAWING FOR COMMUNICATION. 5 Credits.
This course covers hand-drawing as a design skill. Emphasis is on sketching, design drawing, design process and composition studies for visual presentation and design solutions. Students gain drawing skills such as basics of drawing techniques, basic shapes, light, texture, pattern, gesture and perspective drawing to communicate and present their ideas visually. Students learn and develop critical thinking and creative problem solving skills using the drawing process.

DESN 200. VISUAL THINKING. 5 Credits.
Pre-requisites: ENGL 101.
In this course, students will critically interpret images and decode them much like they would decode a poem. Students will use what they already know to figure out what they don't. Through hands-on activities, students will practice working with image and text to create compelling and authentic images and messages. Creative exploration and reflection will introduce students to practices with which they may not be familiar or comfortable.

DESN 216. DIGITAL FOUNDATIONS. 4 Credits.
Introduction to media design and digital culture using computer software for the creation and manipulation of images and text, file management, and preparation for print, web or multimedia uses.

DESN 243. TYPOGRAPHY. 4 Credits.
Pre-requisites: DESN 100 and DESN 216.
An introductory-level course concentrating on the fundamentals of typography with emphasis on letterforms, typographic syntax, type specification, type as image and the use of type in a variety of communicative purposes.

DESN 259. HISTORY OF DESIGN. 4 Credits.
This course considers the development of design in the broad sense of the term. Beginning with the Industrial Revolution and continuing forward to the present day, this course explores the components of design that have influenced the direction of design thinking.

DESN 263. VISUAL COMMUNICATION DESIGN 1. 4 Credits.
Pre-requisites: DESN 100 and DESN 216.
This course provides an introduction to Visual Communication Design including the theories, principles and practices of visual communication, concept development, design process and design technology.

DESN 275. DIGITAL SOUND. 4 Credits.
This course provides a foundation in the techniques of sound design, recording, production and editing for digital media. Students will create and record sound files, apply effects and mix and produce a variety of multimedia audio elements using state-of-the-art digital technology. Applicable uses include websites, games, multimedia products for promotion and learning, entertainment products and virtual worlds.
DESIGN 301. VISUAL STORYTELLING. 5 Credits.
Pre-requisites: DESN 100.
This course will introduce the basics of visual development: from visual storytelling to character design. Students will learn how to create a dialogue between pictures and text through the use of design briefs, research, semiotics, and sequential imagery. They will learn about the history of visual storytelling, practice typographic and pictorial design, and be able to apply what they learn to film, animation/motion design, game design, UX experiences and comics/illustration projects.

DESIGN 325. EMERGENT DESIGN. 4 Credits.
Pre-requisites: DESN 263.
This course explores benefits and risks of new design technologies. Students learn to recognize emergent design technologies and use them to address design problems and explore ways in which new tools reference past paradigms in order to create forward thinking design solutions. Through hands-on, project-based learning, students investigate the possibilities inherent in these new technologies.

DESIGN 338. USER EXPERIENCE DESIGN 1. 4 Credits.
Pre-requisites: DESN 216.
Students investigate principles of interaction design of web enabled devices and differences and similarities between physical interaction and conceptual interaction through the use of metaphor. Exploring relationships between analog and digital frameworks, students become mindful of the overlapping patterns of interaction between the two systems.

DESIGN 343. TYPOGRAPHY 2. 4 Credits.
Pre-requisites: DESN 243.
Building on the principles and concepts introduced in DESN 243 Typography, this course will review the fundamentals of typography and extend typographic knowledge and skills with emphasis on letterforms, typographic syntax, type specification, and type as image. Projects will include experimental application of type + image to artifacts and multi-page documents.

DESIGN 348. USER EXPERIENCE DESIGN 2. 4 Credits.
Pre-requisites: DESN 338.
Students examine different rhetorical frameworks that inform software user interface/experience (UI/UE) and content design. Supporting theories, such as visual rhetoric, contextual design, information architecture, gestalt, content strategy, and design ethics, are investigated. Students demonstrate their understanding of theoretical principles by creating and redesigning small UI-related deliverables and by practicing rigorous written analysis and critique.

DESIGN 350. DIGITAL PHOTOGRAPHY. 4 Credits.
Pre-requisites: junior standing.
This class will have an experimental and philosophical approach. Students will use digital imaging mediums for effective communication and image design. Working within the medium of digital photography, students will engage in strategies and philosophies of vision, light/shadow, reproduction, editing and presentation.

DESIGN 351. ADVANCED PHOTOGRAPHY. 4 Credits.
Pre-requisites: DESN 350.
An extension of DESN 350 with considerable work in advanced enlarging techniques portraiture with emphasis on lighting, architectural photography, slidemaking, color transparencies, and color prints.

DESIGN 355. MOTION DESIGN. 4 Credits.
Pre-requisites: DESN 263.
This course explores the principles of design through motion, with an emphasis on effective use of typography, graphical elements, sound and motion within time and space. Students learn how to import projects, create narrative structures, storyboard, output for various devices and problem solve moving image concerns.

DESIGN 360. PUBLICATION DESIGN. 4 Credits.
This course covers principles of design, typography, and the use of graphic files, in both print and digital publication. Professional desktop publishing software and common web design software are used. Emphasis is on skills required for basic literacy as well as the effective design of common formats such as brochures, newsletters, books, and web pages.

DESIGN 363. VISUAL COMMUNICATION DESIGN 2. 4 Credits.
Pre-requisites: DESN 243, DESN 263.
This course focuses on the interaction of type and image in the visual communication design process. An introduction to form and composition will be achieved through a sequence of design projects that emphasize compositional structure. The goal of class projects is the development of complex, cohesive visual systems using traditional production skills, design processes and specialized computer applications.

DESIGN 365. MOTION DESIGN 2. 4 Credits.
Pre-requisites: DESN 355.
This course continues to build upon the knowledge and tools explored in Motion 1. Focusing more on the theory and practice of motion design, students will use advanced motion techniques to further realize and develop their motion design projects. Students will explore pre-visualization techniques, character driven design, data visualization processes, and apply in-depth problem solving skills to create large scale projects.

DESIGN 366. PRODUCTION DESIGN. 4 Credits.
Pre-requisites: DESN 263.
This course provides students with theory, knowledge and skill of production design for both print and web application. Students gain conceptual understanding and practical skill in areas including color management, print production and web graphics such as banners and videos.

DESIGN 368. WEB DESIGN 1. 4 Credits.
Pre-requisites: DESN 216.
This course covers professional web design addressing modern technologies, processes and techniques. Students work with current web technologies, while preparing for future web enabled devices, or the progressive enhancement approach. Technologies will include HTML(5) and CSS(2/3).

DESIGN 374. BRAND THINK AND SERVICE DESIGN. 4 Credits.
Pre-requisites: DESN 363.
This course explores the research and strategies of service design and brand development. Through case study research, students come to understand what constitutes a successful brand solution and how shared community experiences are created.
DES 375. DIGITAL VIDEO. 4 Credits.
Pre-requisites: DESN 216.
This course offers an introduction to digital video techniques. Students will be introduced to production, editing, theory and practical application for the creation of effective visual communication solutions. Emphasis will be on the creative application of concept and design for the moving image and understanding how to integrate textual, graphical and audio elements for the successful communication of messages created for CD, DVD and the Web.

DES 378. WEB DESIGN 2. 4 Credits.
Pre-requisites: DESN 368.
This course covers modern user experience (UX) design, rapid prototyping, and modern user interface (UI) patterns. Web programming continues to build upon HTML(5), CSS(2/3), and with the addition of JavaScript frameworks to complement the progressive enhancement process. This course continues the foundations set by DESN 368.

DES 385. ADVANCED DIGITAL SOUND. 4 Credits.
Pre-requisites: DESN 275.
This course provides in-depth experience in digital sound creation and editing techniques, along with related hardware and software. Topics include live and studio recording techniques, multi-track project recording, mixing and mastering, and the design and creation of sound tracks, including music, to support and enhance typical media productions. Collaborative and individual projects will be required.

DES 396. EXPERIMENTAL COURSE. 1-5 Credits.
EXPERIMENTAL

DES 398. SEMINAR. 1-6 Credits.
Seminar.

DES 399. DIRECTED STUDY. 1-10 Credits.
Indendent Study.

DES 401. IMAGINARY WORLDS. 5 Credits.
Pre-requisites: DESN 301.
Students will research, explore and create pictorial images based on universal ideas of world building. They will examine the cultural context of imagery contained within folklore, legends, myths, fantasy and science fiction, explore how the role of global communities, ethics, satire, wit and the internet impact contemporary image making, and use a variety of media to explore atmosphere, color, character design, and plot visualization in the creation of virtual environments and narratives.

DES 458. USER EXPERIENCE DESIGN 3. 4 Credits.
Pre-requisites: DESN 348.
This course explores the importance of user interface and emphasizes the role visual structure plays in the design of user experiences. Students apply the prototyping process: research, application, testing and iteration to create useful interactions between web enabled designs and end users. Principles and practices of digital typographic presentation to achieve communication goals and objectives are studied.

DES 463. VISUAL COMMUNICATION DESIGN 3. 4 Credits.
Pre-requisites: DESN 363.
This course continues the study of visual communication design, combining theoretical studies with applied projects. It emphasizes awareness of contemporary visual culture through analysis of a wide range of design examples and continued refinement of perceptual, problem-solving and creative skills. Students employ effective design processes and solutions for issues and topics relevant to contemporary visual communication design practice.

DES 468. WEB DESIGN 3. 4 Credits.
Pre-requisites: DESN 378.
Web Lab is a project- and team-based course focusing on the design and development of experimental websites and web applications. Students are introduced to responsive web design processes, techniques and technologies. Design addresses the challenges of mobile interactions and evolving mobile devices.

DES 471. SENIOR EXHIBITION. 1 Credit.
Cross-listed: ART 471.
Notes: must be repeated three times for credit.
Pre-requisites: senior standing and declared BFA in VCD major.
This course entails the individual preparation and presentation of work for senior exhibition.

DES 474. ADVERTISING CONCEPTS. 4 Credits.
Pre-requisites: DESN 363 and DESN 368.
This course covers principles of advertising design, specifically developing advertising concepts. Open to students in visual communication design, journalism and marketing programs.

DES 480. PROFESSIONAL PRACTICE. 4 Credits.
Pre-requisites: senior standing.
Professional Practice is the study of the visual design industry from both the agency and freelance perspective.

DES 490. SENIOR CAPSTONE. 5 Credits.
Pre-requisites: senior standing; DESN 363, DESN 368.
Satisfies: a university graduation requirement—senior capstone.
This course expands on previous visual communication design knowledge and skills and also emphasizes communication, collaboration and presentation skills. In teams, students work on a comprehensive design project for a community partner which emphasizes design research and the design processes that lead to creative conceptualization and final design solutions. Students are expected to demonstrate sophisticated design decisions and appropriate design solutions.

DES 491. SENIOR PROJECT. 1-10 Credits.
Notes: graded Pass/Fail.
Pre-requisites: senior standing; permission of the instructor.
Independent and/or group study and production of a design project.

DES 493. PORTFOLIO. 2 Credits.
Notes: may be repeated for credit up to three times.
Pre-requisites: DESN 363 and DESN 368.
In this course, students have the opportunity to develop portfolio quality work. Emphasis is placed upon content and concept development, problem solving, formal solutions, statements of objectives and presentation.

DES 495. INTERNSHIP. 2-6 Credits.
Notes: graded Pass/Fail.
Pre-requisites: junior standing; permission of instructor, department chair and college dean. An internship is on-the-job-training. It exposes students to the professional environment through outside job opportunities in graphic design studios, advertising agencies, corporate communications departments and other acceptable organizations. Students work under the guidance of art directors, creative directors, senior graphic designers or marketing communication managers and perform creative work that is educational and meaningful for their short-term academic goals as well as their long-range career preparation.
DESN 496. EXPERIMENTAL COURSE. 1-6 Credits.

DESN 497. WORKSHOP, SHORT COURSE, CONFERENCE, SEMINAR. 1-6 Credits.

DESN 498. SEMINAR. 1-6 Credits.

DESN 499. DIRECTED STUDY. 1-6 Credits.
Pre-requisites: permission of instructor, department chair and college dean.

DESN 504. COMMUNICATION TECHNOLOGIES. 4 Credits.
An accelerated coverage of the theory and applications of communication technologies. Emphasis is on competencies and skills required in business and industry including desktop publishing, computer-assisted image generation and manipulation, data translation and communication and presentation media development used in advertising, proposal writing, presentations and publications.

DESN 508. WEB DESIGN. 4 Credits.
Notes: offered fall.
This course covers professional web design addressing modern technologies, processes and techniques. Students work with current web technologies, while preparing for future web enabled devices, or the progressive enhancement approach. Technologies will include HTML(5) and CSS(2/3).

DESN 550. DIGITAL FOUNDATIONS. 4 Credits.
Pre-requisites: METC 110.
Introduction to media design and digital culture using computer software for the creation and manipulation of images and text, file management, and preparation for print, web or multimedia uses.