School of Architecture and Built Environment

Department of
Design and Visual Communication

Course Description

Bachelor of Arts Program in
Design and Visual Communication

2012
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**Field 1: Studios and Creative Projects:**

DES 210 Cinema and TV Studio, 4 Crs.
A project-based course; it demonstrates basics of Cinema and TV production, including writing, shooting, editing, and announcing. Students will write, shoot, and edit their own film stories, which they will then put together into a professional newscast that will be posted on the web and burned to DVD. Projects are preferably realized in co-operation with actual clients according to real-world demands.

DES 211 Magazine Design, 4 Crs.
A project-based course integrating conceptual communicative thinking and design as well as principles and practices of publication design and production, with emphasis on magazines, newsletters, newspapers and contemporary formats including the on-line magazines and newspapers; use of traditional and electronic information services as a resource; development of grids and typography systems; selection and use of photographs and illustration for publication; consideration of dramaturgical aspects; and preparation of design for print and electronic publication. Projects are preferably realized in co-operation with actual clients according to real-world demands.

DES 212 Book Design, 4 Crs.
A project-based course integrating conceptual communicative thinking and design as well as traditional and innovative approaches to the book as a communicative, informative or artistic medium and cultural form including the electronic formats. Class projects challenge students to apply content development to the craft skills they have learned and combine it with grid systems and typography, also considering dramaturgical aspects. Projects are preferably realized in co-operation with actual clients according to real-world demands.

DES 213 Packaging Design, 4 Crs.
A project-based course integrating conceptual communicative thinking and design as well as techniques and stages of packaging in paper, cartoon, glass, metal, plastics, and legal, hygiene and safety considerations related to packaging. The assignments are intended to simulate real world experience and will include designing a range of 3D surfaces and materials. Finished comprehensive projects will be created on the computer to a professional quality. Projects are preferably realized in co-operation with actual clients according to real-world demands.

DES 214 Exhibition Design, 4 Crs.
A project-based course integrating conceptual communicative thinking and design as well as large-scale exhibitions. General logistical concerns surrounding successful planning and installation of small and large-scale exhibitions and trade show booths are addressed including budgeting, scheduling, and communications. Integration of three-dimensional aspects, lightening and interaction of exhibition concepts with printed materials and audiovisual media are also handled. Projects are preferably realized in cooperation with actual clients according to real-world demands.

DES 215 Web Design I, 4 Crs.
A project-based course integrating conceptual communicative thinking and design; applied and theoretical principles and techniques of Web page Design; development of grid systems and typography considering the special requirements of screen design; and integration of photography, illustration, film and animation. The course incorporating basic programming, multimedia and domain hosting and size, incorporating HTML, Flash, and Dream Wave. It stands for HyperText Markup Language and is a series of codes used in electronic documents; i.e., tags and markups so that they can be read by browsers such as Mozilla Firefox, Internet Explorer and Netscape Navigator. Elements to be coded include different types of text (such as bold or italicized), headings, paragraphs, dimensions, word breaks, links, graphics, sounds, colors, tables, columns and special characters.

DES 310 Public Relation, 4 Crs.
A project-based course integrating conceptual communicative thinking and design. This course will teach students to organize complex public relation campaigns activities and to combine multiple media strategically under one communication goal. Balancing between information and persuasion public relation projects usually focus on text, copywriting and documentary work, creating or supporting a positive image of a company or organization. Projects are preferably realized in co-operation with actual clients according to real-world demands.

DES 311 Branding and Advertising, 4 Crs.
A project-based course integrating conceptual communicative thinking and design. This course will teach students how to develop brands, create concepts, and develop advertising campaigns. Students will also learn practical tips including how to organize a creative department, how to write a creative brief, how to create budgets and time-lines, how to research and purchase visual imagery, and how to determine appropriate media for particular branding and advertising campaigns. Projects are preferably realized in co-operation with actual clients according to real-world demands.

DES 312 Signature Design, 4 Crs.
A project-based course integrating conceptual communicative thinking and design; design solutions to communicate client and product image through logos, logotypes, icons, and symbols within complex identity or information concepts; development of standard manuals and stationery packages; and application of logos on items beyond paper. Signage, clothing, trucks,
packaging are preferably realized in co-operation with actual clients according to real-world demands.

**DES 313 Urban Utility Design, 4 Crs.**
A project-based course integrating conceptual communicative thinking and design as well as design within the urban environment by addressing wayfinding and exhibit design. Designers use text, materials, colors, graphics, objects, movement and sound to help people navigate and investigate spaces; to provide safety information; or to support sharing of information. Projects will challenge students to analyze the use of an environment and develop designs to enhance or change user perception. Projects are preferably realized in co-operation with actual clients according to real-world demands.

**DES 314 Fashion Accessories Design, 4 Crs.**
A project-based course integrating conceptual thinking and design. It provides students with a working knowledge of the design and execution of fashion accessories. A strong emphasis is placed on changing fashion image and importance of accessories in creating a ‘total fashion look.’ Manufacturing and production processes are also discussed. Students learn techniques of working with suitable materials for fashion accessories. Decorative production methods are also covered. Projects are preferably realized in co-operation with actual clients according to real-world demands.

**DES 315 Interactive Design I, 4 Crs.**
A project-based course integrating conceptual communicative thinking and design as well as visual and audio communication involving user actions and illusion of motion. Through individual approach and expression in traditional media, students experiment with the juxtaposition and sequence of design elements and imagery to develop a sense of artist-audience construct and consequence. Projects are preferably realized in co-operation with actual clients according to real-world demands.

**DES 316 Film Animation I, 4 Crs.**
A project-based course integrating conceptual communicative thinking and design. Students define specific production goals to explore or complete an animation project of their choosing. Emphasis is on director’s conceptual, aesthetic and technical decision-making processes. Students are encouraged to share their specific areas of expertise while producing individually directed projects and helping each other in these projects. Projects are preferably realized in co-operation with actual clients according to real-world demands.

**DES 317 Documentary Films I, 4 Crs.**
A project-based course integrating conceptual communicative thinking and film-making. Through a combination of lectures, film screenings and hands-on demonstrations, this course will familiarize students with the basics of producing, shooting, lighting, sound gathering and editing for documentary production. Work with DV video cameras, tripods and fluid heads, field monitors, simple location lighting packages, sound recording equipment and basic editing systems is emphasized. Techniques to improve students’
storytelling skills and creative decision-making are also addressed. The aim is to produce documentary-films in working groups. Projects are preferably realized in co-operation with actual clients according to real-world demands.

**DES 318 Experimental Short Films, 4 Crs.**
A project-based course integrating conceptual communicative thinking and experimental short filmmaking. The students learn how to shoot, light, and edit with different sources of film, analog and digital video. Students are challenged to push the concept in their work beyond storytelling into experimental narrative, personal self-portrait, and experimental documentary, and to explore the capabilities of the projected image. Class demonstrations include techniques in shooting, use of various stocks and lenses. Lighting, sound recording, and projection techniques are part of this experience. Projects are preferably realized in co-operation with actual clients according to real-world demands.

**DES 319 Realization of TV Productions I, 4 Crs.**
A project-based course integrating conceptual communicative thinking and production. The creative, organizational and managerial roles of the crew, like producer, director and camera-man in narrative and non-narrative genres related to TV productions are addressed. Topics include feature filmmaking, independent production, television programming, financing, distribution, and the whole collaborative process. Students are expected to break down, schedule and budget a feature film. Projects are preferably realized in co-operation with actual clients according to real-world demands.

**DES 410 Corporate Design, 4 Crs.**
A project-based course integrating conceptual communicative thinking and design. It will teach students to organize extensive corporate design projects and to combine multiple media strategically under one communication goal, balancing continuity and flexibility. The complex process will be divided into useful steps like briefing conversation, research and analysis of thematic and media-specific environment, conception and idea, development of a creative concept with alternative approaches, presentation of drafts, transmission of basic design for total volume, planning on schedule and within costs, and co-ordination between manufacturing process and realization. Projects are preferably realized in co-operation with actual clients according to real-world demands.

**DES 411 Information Design, 4 Crs.**
A project-based course integrating conceptual communicative thinking and design as well as design of brochures, flyers, newsletters, manuals, information graphics, and other user-friendly publications, in a series of focused modules. Audience-awareness, collaboration, peer critique, editing, writing, and visual design, and Info Design blog are also addressed. Projects are preferably realized in co-operation with actual clients according to real-world demands.

**DES 412 Product Design I, 4 Crs.**
A project-based course integrating conceptual thinking and design with emphasis on designing competitive quality products. The product development process is covered from problem identification through detail design and evaluation. Topics covered include: idea generation and evaluation, visualization, product design specific knowledge such as material selection, design for assembly, design for manufacturability, and quality issues. Projects are preferably realized in co-operation with actual clients according to real-world demands.

**DES 413 Advertising and Image-Film, 4 Crs.**
A project-based course integrating conceptual communicative thinking and film-making as well as the role of the crew in development, production, postproduction, and delivery of commercials and advertising and industrial films. Instruction emphasizes standard practices in production company operations. Students learn how to read storyboards and scripts and understand strategic marketing plans through practical applications. Students will bid, schedule, and execute a commercial production. Projects are preferably realized in co-operation with actual clients according to real-world demands.

**DES 414 Computer Game Design, 4 Crs.**
A project-based course integrating conceptual communicative thinking and design as well as computer game design methodology and implementation techniques. Hands-on development of computer games with latest game programming languages and development environments is also addressed. Computer video games with object-oriented and component-based approaches, game engines, game programming environments, performance and optimization, collision detection, 2D and 3D graphics and animation, sound effects and music, interactivity and user interface, multiplayer games, and approaches to game development are also handled. Projects are preferably realized in co-operation with actual clients according to real-world demands.

**DES 415 Interactive Design II, 4 Crs.**
A continuation of DES 315, this is a project-based course integrating conceptual communicative thinking and design as well as visual and audio communication, involving user actions, strategic design and the illusion of motion. Through individual approach and expression in traditional media, students experiment with the juxtaposition and sequence of design elements and imagery to develop a sense of artist-audience construct and consequence. Projects are preferably realized in co-operation with actual clients according to real-world demands.

**DES 416 Film Animation II, 4 Crs.**
A continuation of DES 316, this is a project-based course integrating conceptual communicative thinking and design. Students define specific production goals to explore or complete an animation project of their choosing. Emphasis is on director’s conceptual, aesthetic and technical decision-making processes. Students are encouraged to share their specific areas of expertise, while producing individually directed projects. Projects are
preferably realized in co-operation with actual clients according to real-world demands.

DES 417 Documentary Films II, 4 Crs.
A continuation of DES 317, this is a project-based course integrating conceptual communicative thinking and film-making. Through a combination of lectures, film screenings and hands-on demonstrations, this course will familiarize students with the basics of producing, shooting, lighting, sound gathering and editing for documentary production. Work with DV or HD-video cameras, tripods and fluid heads, field monitors, simple location lighting packages, sound recording equipment and basic editing systems is also addressed. Techniques to improve students' storytelling skills and creative decision-making are equally handled. Projects are preferably realized in co-operation with actual clients according to real-world demands.

DES 418 Film Production in TV Studios, 4 Crs.
A project-based course integrating conceptual communicative thinking and film-production as well as directing principles and production techniques as applied to video program production. Procedures involved in video studio productions, specifically the ability to design and direct individual productions are also addressed. Function in the television studio, practice with TV lighting, staging, audio, video, producing and directing conventional video programs of various formats (i.e. musical and dramatic scenes, talk-shows, TV medium and other media of visual communication) are equally handled. Students can then develop aesthetic and critical insights which will enable the proper appreciation and evaluation of professional production techniques appropriate to the video. Projects are preferably realized in co-operation with actual clients according to real-world demands.

DES 419 Realization of TV Productions II, 4 Crs.
A continuation of DES 319, this is a project-based course integrating conceptual communicative thinking and production; creative, organizational and managerial roles of producer and other crew-members in narrative and non-narrative genres related to TV productions; and challenges that face producers, directors, writers and production managers. Topics include feature filmmaking, independent production, television programming, financing and distribution, and the whole collaborative process. Students are expected to break down, schedule and budget a feature film. Projects are preferably realized in co-operation with actual clients according to real-world demands.

DES 511 Scenic Set Design, 4 Crs.
A project-based course concerns the designing and assembling of the performance spaces, main stage and/or showcase sets used in theatre and cinema and TV studios. The course also examines the approaches to doing so; design elements: set, costume, lighting, and sound, new media, puppetry, and animation; examine the body, and the space that it inhabits to generate new interdisciplinary possibility; experiment with, and apply new technical, and conceptual knowledge.
DES 512 Product Design II, 4 Crs.
A continuation of DES 412, this is a project-based course concerning the design of contemporary products. The course involves three-dimensional problem solving, and the design process. Theoretic problems are assigned involving problem understanding, analysis, and semantics. Computer-aided designs and physical models are created to visualize design concepts and to evaluate solutions.

DES 513 Creative Design Studio A, 4 Crs.
A project-based course that allows specialized, in-depth, or/and integrated study of a subject supplementing the various Design and Visual Communication disciplines. Student interest and instructor expertise help determine the topic. The course integrates conceptual communicative thinking and design as well as design methodology and implementation techniques. The design development process is covered from problem identification through detailed design and evaluation with emphasis on designing competitive quality outcomes. Projects will challenge students to generate new interdisciplinary possibility and explore new technical and conceptual knowledge. Projects are preferably realized in co-operation with actual clients according to real-world demands.

DES 514 Creative Design Studio B, 4 Crs.
A project-based course that allows specialized, in-depth, or/and integrated study of a subject supplementing the various Design and Visual Communication disciplines. Student interest and instructor expertise help determine the topic. The course integrates conceptual communicative thinking and design as well as design methodology and implementation techniques. The design development process is covered from problem identification through detailed design and evaluation with emphasis on designing competitive quality outcomes. Projects will challenge students to generate new interdisciplinary possibility and explore new technical and conceptual knowledge. Projects are preferably realized in co-operation with actual clients according to real-world demands.

DES 515 Web Design II, 4 Crs.
A continuation of DES 215, a project-based course introducing other languages in web design which work with HTML allowing for more dynamic web pages and providing additional functions and control, data base, e-business, e-store, etc. This includes PHP, Magento and Cold Fusion.

DES 516 Creative Photography A, 4 Crs.
A project-based course that allows specialized or in-depth study within the discipline of Photography that allows exploration and analysis of selected topics. Student interest and instructor expertise help determine the topic. The course provides the students with the opportunity to explore photography as a creative medium, allowing student time to pursue individual and/or commercial photographic interests while stressing critical thinking skills. Students will have the chance to work with advanced concepts for solving complex visual communication problems in and/or out of the studio. The course explores all genres of photography: formal and informal studio.
portraits, environmental (nature) portraiture, fashion photography, art photography, and photojournalism with film and digital media.

**DES 517 Creative Photography B, 4 Crs.**
A project-based course that allows specialized or in-depth study within the discipline of Photography that allows exploration and analysis of selected topics. Student interest and instructor expertise help determine the topic. The course provides the students with the opportunity to explore photography as a creative medium, allowing student time to pursue individual and/or commercial photographic interests while stressing critical thinking skills. Students will have the chance to work with advanced concepts for solving complex visual communication problems in and/or out of the studio. The course explores all genres of photography: formal and informal studio portraits, environmental (nature) portraiture, fashion photography, art photography, and photojournalism with film and digital media.

**Field 2: Theory, History and Society:**

**DES 224 History of Visual Communication Design, 3 Crs.**
The course demonstrates the visual communication design (graphic and product design, cinema and TV production, multimedia, and animation), from the late 19th Century to the late 20th Century, with emphasis on the aesthetic, technical, social, economic, and institutional forces that affect visual communication design production and perception.

**DES 225 Theories of Visual Communication, 3 Crs.**
The course examines the fundamental characteristics that differentiate visual images from other modes of communication and considers ways that visual elements convey meaning in isolation and in combination; exploration of creative processes to promote creativity: analytical-systematic methods such as morphological box, morphological matrix, and problem solution tree; intuitive-creative methods such as brainstorming, brain writing, brain floating; synectic methods (synectics, emotive word analysis, visual synectics, semantic intuition); idea markets; and, development of new creative ideas, e.g., innovative products, new brands, positioning, new advertising ideas including slogans, headlines, and visual materials; aesthetics and the related philosophy and philosophers, focusing on principles of art in general, literature, music, and visual contemporary issues. The course also emphasizes psychology and sociology in design through addressing the meaning of perception, Gestalt theory, principles of perception in visual arts, and criticism schools in visual arts.

**DES 325 Branding, 3 Crs.**
The course focuses on aspects of identity and branding leading to success or failure, what is "safe" in design and what is experimental, and why clients may fear the unknown. Through reading, research, lectures, case studies and workshops, students learn the principles of modern branding. Students then apply those principles as they develop a brand strategy, brand position and
brand personality for a specific product or service just as they would in the professional world of advertising.

DES 327 Design Theory, 3 Crs.
This course allows specialized or in-depth study of a subject supplementing the field of Design and Visual Communication Theory. Student interest and instructor expertise help determine the topic. Through reading, research, lectures, case studies and workshops, this course enhances the student's ability to influence human thinking and behavior through the power of Design. Students will have the opportunity to address the aesthetic, technical, social, economic, and institutional forces that affect Design and Visual Communication production and perception, and explore the creative processes to promote creativity through analytical-systematic methods.

DES 328 Text and Copy Writing, 3 Crs.
This course is based on profound theoretical and practical knowledge of effective target-oriented copywriting for advertising in newspapers, magazines, outdoors, posters, Internet, brochures, and miscellaneous applications. This course enhances the student's ability to influence human thinking and behavior through the power of the written word. Case studies and copy formats such as "KISS", "Break The Rules" and other rhetorical figures are also included.

DES 329 Script Writing, 3 Crs.
In this course students will learn to create and develop a story idea, utilize various plotting and character development tools, understand and apply the concept of theme, and to develop and personalize the Writing Process. Upon successful completion of the course the student will have a working knowledge of: the Critique Process, Character Development, Plot Structure, Thematic Analysis, and The Writing Process.

DES 425 Dramaturgy, 3 Crs.
The course provides examples of traditional story-telling and dramaturgy. The first steps in understanding methods and functions will be imparted to students. The course will address new play development, structure of script and screenplay, playwrights' biography and other writings, first production and subsequent production history, and the historical and regional details of the period depicted in the plays' action. Contemporary issues will be taught as related to the playwrights' contribution to film production. The class will create dramaturgical portfolios for a season of imaginary (and, potentially, a few actual) film productions.

DES 429 Excursion: International Design and Media, 0 Crs.
A fieldtrip-based course; assignments are related to the developments of design and media in allover the world. It also includes study of selected projects covering the visual, functional, structural, and technological aspects of German design and media.
DES 523 Public Relations and Marketing Concepts, 3 Crs.
The course provides basics of public relations and marketing processes: research, analysis, conception, strategic planning, and realization. It illustrates intersection between visual communications and marketing concerning historical, social, psychological, aesthetical and situational aspects. It deals with definition and determination of target groups including consumer typologies and respective communication, and consumer behavior demonstrating the relationship between human psychology and design products. It also includes case studies regarding socio-cultural, technological, political-legal, physical, ecological and economical factors of the market. The course emphasizes practical training in the creation of copy strategies, positioning, and brand planning.

Field 3: Visualization:

DES 130 Freehand Sketching I, 2 Crs.
This course teaches students perspectives of observation; perception of solids and voids in space; objective recording of three-dimensional form onto flat surface representing a two-dimensional visual frame; drawing in various media: pencil, ink, water color, etc; and textural and tonal qualities introduced and enhanced through freehand sketching. Students will produce sketchbooks as a device used sketch, draw and record existing events and visualize concepts.

DES 131 Typography / Latin, 3 Crs.
The course provides a comprehensive exploration and application of Latin typography in design. Students will study the design and use of typography from historical to contemporary perspectives and analyze the difference between informative, staging and illustrative applications, considering different types of media and target groups and their specific communication problems. They will explore how to use contrasts, rhythmic structures, typographic hierarchy and micro-typographic design parameters in order to create effective visual solutions with esthetic and functional quality. Focus will be on fundamentals of page layout, especially the development of modular grid systems and their creative handling with constant and variable elements, using current professional page layout software.

DES 133 Calligraphy and Ornaments, 3 Crs.
The course will teach development of lettering and ornaments throughout history: Arabic and Latin letters, their proportions, structure, characteristics and different styles as well as ornamentations inspired by vegetation, animals, stars, and geometry. It also studies use of ink pen and brush in the creation and execution of various lettering styles, works of calligraphy and ornaments, with a focus on esthetic quality of single forms and details. Exploring applications under contemporary communicative aspects is further included.

DES 134 Software Packages for Visual Communication Design, 2 Crs.
In this course students will study software packages for visual communication design. The course further addresses hands-on experience using software
packages to create 2D/3D graphics, sound, animation, and video. A discussion of the multimedia market, copyright, and ethics in mass media is also included. Software packages include Adobe Photoshop, Adobe Illustrator, and InDesign.

**DES 135 Freehand Sketching II, 2 Crs.**
This course is a continuation of DES 130; aims to acquire methods and develop skills of sketching as a means of visualization in the design-process; to further develop acquired skills and knowledge in analytical freehand sketching; to acquire an understanding about various modes of representation within architecture and design; their specific potential and limitations in visual communication; to develop awareness about representation as symbolic form. Students will produce sketchbooks as a device used sketch, draw and record existing events and visualize concepts.

**DES 136 Rendering and Presentation Techniques, 2 Crs.**
Rendering and presentation techniques concern both the art of mastering the available means of persuasion and the study of how oral, written, and visual communication projects the intentions of individuals and groups, makes meanings, and affects audiences. The purpose of this course therefore is two-fold: to help students become more effective communicators by learning the various presentational situations and techniques; and to help them understand how various forms of communication work by learning some of the strategies of presentation techniques analysis.

**DES 231 Typography / Arabic, 3 Crs.**
The course contains a comprehensive exploration and application of Arabic typography and lettering in design. Students will study the design and use of typography from historical to contemporary perspectives and analyze the difference between informative, staging and illustrative applications, considering different types of media and target groups and their specific communication problems. They will explore how to use contrasts, rhythmic structures, typographic hierarchy and micro-typographic design parameters in order to create effective visual solutions with esthetic and functional quality. Focus will be on fundamentals of page layout, especially the development of modular grid systems and their creative handling with constant and variable elements, using current professional page layout software.

**DES 235 Anatomy for Artists, 2 Crs.**
This course offers an intensive introduction to anatomy for artists. It concerns the fundamentals of traditional artistic anatomy and how this knowledge is applied to illustration, character design and modeling. The course covers proportions, critical bony landmarks, mechanics of the skeleton, and gives a comprehensive look at all the muscles of the body and how they influence surface form and mechanical function.

**DES 236 Character Rigging, 2 Crs.**
This course aims to enable the students to deal with characters with a wide range of body movements, rigging, and animation. This course due aims at preparing a character for animation, it cover rigging concepts in both 2D and
3D animation. Techniques for creating controls that are realistic, flexible, and intuitively animated are emphasized.

**DES 237 Signs and Symbols in Design, 2 Crs.**
This studio course focuses on refining the student's ability to understand and utilize the significant visual language of signs and symbols, individually or grouped into sign systems for communication. The theory of semiotics provides a framework for image analysis and visual experimentation. Projects focus on mapping semiotic relationships and on exploration of the visual language of information, orientation, and organization systems like traffic signs, wayfinding or cartography. Students examine the visual vocabulary defining culture and experiment with communicating challenging conceptual ideas.

**DES 238 Animation Software, 2 Crs.**
This course provides students with hands-on experience using animation software packages in an electronic design studio environment. Projects give students experience in exploring designs and creative applications of 2-D and 3-D animated displays.

**DES 239 Multimedia Software, 2 Crs.**
This course provides students with hands-on experience using multimedia software packages in an electronic design studio environment. Projects give students experience in exploring design and the creative application of display.

**DES 331 Storyboard, 3 Crs.**
This course teaches students concept development and realization in film and animation. Storyboards portray various types of story structure and style using a production guide that emphasizes typical professional deadlines, techniques and methods to communicate ideas. It teaches the importance of visualization of motions and sequences, temporal sequences, figure, and mimic and gestures, using different quality levels of design (rough, layout, fine-layout).

**DES 335 Illustration, 3 Crs.**
The course teaches basic techniques of commercial illustration and their transmission into practice as well as drawing and painting in black and white and in color (pen drawing, water colors, acrylics, pastels, etc). It introduces students to history, materials, instruments and examples of different techniques. Through the integration of handcraft skills and digital technology, students gain an opportunity to discover new possibilities for illustrated visual expression. Illustrative skills can be used in a wide range of projects such as publishing, corporate and editorial applications, or even advertisement and animation.

**DES 431 Hardware Experimentation, 2 Crs.**
This course introduces students to the technical issues of making interactive design. The students will explore I/O boards and devices that they can find in
used toys and electronic gadgets and learn how to re-configure them to be used as links between physical interaction and digital output. The students will also examine the use of webcams, sensors, LEDs and relay boards. This helps the students in creating interactive design and installations. The course requires basic knowledge of programming languages.

DES 432 TV Producing, 2 Crs.
In this course students will learn reproduction, production and postproduction stages of TV production design. Emphasis is placed on analyzing the script, preparing a budget, determining a schedule, and casting, identifying the target audience and deciding on a method of distribution.

DES 433 DVD Authoring, 2 Crs.
The course teaches authoring tools and issues affecting multimedia production projects from design phase through completion. Projects completed in software package are also included. Content comprises basic programming techniques, animation control, software engineering principles for multimedia environment, use of color images and sound, incorporation of movies, DVD production, testing and mastering.

DES 434 Design Visualization, 2 Crs.
This course allows specialized or in-depth study of a subject supplementing the field of Design and Visual Communication. Student interest and instructor expertise help determine the topic. It will enable students to become more effective communicators with a deeper understanding of the design process. Students will have the opportunity to further explore a variety of hands-on techniques of design creation, manipulation, and construction. Through the integration of handcraft skills and digital technology, students will work on visualizing the design process from concept development to design realization whether in 2D/3D graphics, sound, animation, or video and film.

SABE 231 Computing Fundamentals for Architects and Designers, 4 Crs.
This course brings the students in contact with the latest developments of computational design tools. Today, many designers and researchers use digital tools and scripting languages associated with them to simulate, automate, generate processes and get hand on parametric, or generative relationships in geometry, materials, systems structures, programmatic elements, visual and compositional components, enabling the rise of more complex solutions for an already complex problems. Solutions that are not reachable using design tools in a conventional matter. The course will look into the syntax of an existing scripting language, as an example, programs plug-ins, and other necessary means. It will examine different case studies and focus on the way multiple programs communicate, in order to execute and automate and idea from conceptual general level to a mature detailed high level. Software packages include Cinema 4D, Flash, and Introduction to AutoCad.

Field 5: Technical:
DES 151 Principles of Photography, 2 Crs.
The course discusses the significance of medium photography within communication processes and the difference between human perception and photographic image, reflecting such aspects as subjectivity and objectivity. Through creative assignments that emphasize conceptual development and technical skills, students will explore the nature of two-dimensional medium photography and learn to use the creative effects of display window, aperture, exposure time, camera movement, manipulation of perspective, light and illumination. The course also includes an introduction to basic digital image manipulation, input and output strategies using digital cameras and creative camera controls. Masking techniques, paths, panoramas, photo retouching, and stereoscopic imaging are also included. The course focuses finally on proficiency in working with equipment and software combined with creativity to produce a quality portfolio.

DES 152 Model-Making Techniques, 2 Cr
A practical course covering model-making skills and techniques for theatre, film, animation, and graphic and product design. Emphasis is made on accessible techniques of building, modeling, surfacing and finishing relevant to designers in various disciplines. There is a focus on ‘realism’ in representation, geared more to theatre and film work. Areas covered include methods of constructing or shaping with card, plastics and foams; methods of casting; modeling with soft materials; figures; techniques of soldering and etching metals; scenic, such as plants and trees; various surface/texture treatments and paint finishes.

DES 250 Photography Studio, 2 Crs.
This advance level course emphasizes theoretical knowledge, which is needed for the development of professionalism in photography. Beside advance technical knowledge of equipment and digital image processing, students will also get to know the various principles and concepts concerning artistic expressions, design elements and graphical presentation. The knowledge will widen the students' scope for creative imaging.

DES 252 Realization Print, 2 Crs.
This course covers the technical aspects of real print projects and provides the students with advanced knowledge and specific details in pre-press production, print technology and bookbinding, matched with the projects they are working on. Through professional support and direct co-operation with production companies, students get experience and information about how to avoid technical mistakes and improve the quality of the final product under real market conditions. Coordination, scheduling and budgeting as well as the use of a professional vocabulary will be practiced.

DES 253 Workshop Technology, 2 Crs.
This course is concerned with product design production methods. It engages the students in building three dimensional physical models of their design, material, selection and acquisition, and construction of models using woodwork, metalwork, welding, casting, and the like. The course includes excursions to industrial design production units.
DES 258 Woodcut, Etching and Relief Printing, 2 Crs.
The course teaches students traditional etching techniques: monotype, woodcut, zinc to create graphic art works and relief printings as well as lithograph arts. It also addresses silkscreen printing process and techniques of color separation. Management of series, editions and a portfolio are other parts of the course.

DES 350 Local Internship, 0 Crs.
The course focuses on practical experience within a professional setting. Students must complete 160 hours of training in approved locations in Jordan by the end of the third academic year to align their educational outcomes with the requirements of skill set and professions.

DES 351 Composing Techniques I, 2 Crs.
An introductory course in composing music for multimedia: film, animation, theater, dance, art, design, and/or games. The course provides students with the fundamentals of compositing, selection of music, and digital composing. Students develop skills in compositing using Adobe After Effects.

DES 352 Media Technology, 2 Crs.
The course is based on the study and application of media aesthetic principles to visual media, utilizing digital imaging, manipulation technologies and software. Students analyze and develop digital presentations containing graphics and text based on the principles of effective visual design for several screen formats. Theory is integrated into practice through several guided projects, culminating in a major media design project published to CD, DVD and the web.

DES 353 Editing and Montage, 2 Crs.
The course is an introduction to the techniques and aesthetics of non-linear motion picture editing, editing techniques for desktop digital systems, comparisons between Final Cut Pro and Avid software/systems, and hands-on application of editing theory, techniques, practices and technology. It also includes examples from important films that demonstrate how timing, pacing, sound, and other dramatic aesthetics affect viewer's perceptions and the success of the sequence. The course further addresses techniques, aesthetics and equipment for recording sound for motion pictures as well as creating motion pictures soundtracks and techniques and aesthetics of sound editing and mixing. Each student will further develop technical skills through the completion of a complex editing project.

DES 354 Audio Techniques, 2 Crs.
The course provides a broad introduction to sound design principles as applied to moving pictures and interactive systems. The phenomenology of sound is examined with an introduction to acoustics. Creative use of sound is explored through an introduction to field recording and the use of digital audio work stations. Students use original sound recordings as well as those
sampled from an extensive sound library in order to create sound pieces both with and without images. Proper methods of studio recording, sound effects recording, SMPTE time code systems, signal processing, multiple soundtrack construction, and mixing using a digital workstation are emphasized.

DES 358 Packaging and Prototype Production Techniques, 2 Crs.
This course explores new rapid packaging and prototype production techniques used to develop pre-production product designs. Through a series of lectures, demonstrations, research and field studies, students will observe how new products are shaped and influenced by the introduction of innovative methods, materials and processes from conception to a manufactured item.

DES 359 Design Technology, 2 Crs.
This course allows specialized or in-depth study of a subject supplementing the field of Design and Visual Communication Technology. It focuses on emerging technologies of the 21st century and the convergence of traditional with new media. Student interest and instructor expertise help determine the topic. The course provides students with the opportunity to investigate selected topics in information and design technology. Students will be able to analyze the strengths and limits of various media. will typically illustrate the application of theory and research to real-life situations The course will also allow students the chance to examine how information is shaped and modified by the technologies that are selected to meet desired goals.

DES 451 Composing Techniques II, 2 Crs.
Continuation of DES 351, an advanced course in composing music for multimedia: film, animation, theater, dance, art, design, and/or games. Students develop skills in compositing using Adobe After Effects.

DES 459 International Internship, 6 Crs.
This course is provided through partnerships and co-operation programs between the GJU and professional firms, studios and agencies in Germany. Students attend a six-month internship program in Germany to align their educational outcomes with the requirements of skill set and professions in Jordan and the region.

Field 9: Graduation Project:

DES 591 Graduation Project I, 1 Crs.
In this course, students develop an innovative and theoretically informed body of work that is exhibited in a manner and context that support its creative content. Students also produce a written component that addresses the theoretical premise of the work.

DES 592 Graduation Project II, 6 Crs.
Based on the preparatory works in Graduation Project I, this course proceeds to prepare innovative designs through systematic steps dealing. Students
exhibit/present their work in a public manner and context that support its creative and viable content.

Courses offered by the Department of Architecture and Interior Architecture:

**ARC 111 Fundamentals of Design I, 4 Crs.**
A project-based course; introduction to the basic principles of order using two- and three-dimensional compositions of basic design elements: point, line, and plane, addition and subtraction through intersection of these elements and the potential illusive volumes that make space shapes: circle, square, and triangle; spatial organization: symmetry and balance, unity, repetition and rhythm, transformation and datum; order: focality and centralization radially, linearity, and grid. The course will establish space explorations through movement and circulation. Additional emphasis will be on color theory, textures and tones. Class assignments will be based on abstract concepts while acquainting student with using different media and presentation techniques.

**ARC 112 Fundamentals of Design II, 4 Crs.**
A project-based course; it provides understanding to the complex nature of space forming by synthesizing its basic elements; emphasis on constructive typology and form generation; formal expression and dependence/independence of mass and space using solid and void, ratio and proportions, and numerical logic. It provides an understanding of the different spatial relationships, ordering principles, and arrangements in relation to place making and preferences. Topics that may be covered include measured drawings, small objects, 2-D and 3-D compositions of abstract and real nature, etc.

**ARC 131 Technical Graphics A, 3 Crs.**
A project-based course; it is based on use of instruments and equipment necessary for accurate drafting of simple geometric constructions gradually evolved into orthogonal - isometric and axonometric projections - planes, sections and elevations.

**ARC 132 Technical Graphics B, 3 Crs.**
A project based course; it is based on learning of prespective projections: one-point and two-point projections, exterior and interior; casting shades and shadows on horizontal and vertical planes; axonometrics and isometrics, while using different rendering techniques: pencils, colored pencils, markers, pens, and ink.

**ARC 231 Computer Visualizations I, 2 Crs.**
This course provides students with hands-on experience using software packages in architectural media, graphics and representation. It teaches students to use computer applications in producing two and three-dimensional drawings, presentation techniques for producing rendered, modeled and visualized architectural drawings.
Courses offered by the Department of Architectural Conservation:

AC 225 Comparative History of Arts, 3 Crs.
This course provides a comparative method for studying the history of arts and design. It reviews the arts of the ancient civilizations of the Nile Valley, Mesopotamia; the Classical civilizations of Greece and Rome; the Byzantine and Early Christian period; evolution of Western art: Romanesque, Gothic, Renaissance, the Classic Revival in Central Europe. The course also reviews the principle movements and theories of 19th and 20th century arts and design: Modern arts and design from 1800 to 1950; and Contemporary arts and design from 1950 to the present. Students will be trained to analyze modern and contemporary forms of arts and design in a critical way and relate them to other contemporary practices – Reflect on arts and design from perspectives of ethical, moral, and philosophical frameworks.

AC 226 Visual Arts in the Islamic Context, 3 Crs.
The course concerns the visual arts in MENA. It specifically explains technical complexity, decorative themes, meanings and the arts of books, textiles, metal work, pottery, tiles, woodwork, and glasswork. The role of Islamic beliefs, ideas and myths, together with the great variety of the inhabitants in the evolution of visual arts, is also included.