Fullerton College

Technology and Engineering Division

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November 15, 2024

Advisory Meeting
Fullerton College
Department of Architecture

Attendees:

Alan Ray Professor and Chair Department of Architecture Fullerton College
Ken Starkman Dean of Technology and Engineering Fullerton College
Olivia Barajas Career Education Counselor Fullerton College
Lee Williamson Adjunct Professor Construction technology Fullerton College
Ernie Kelsey Fullerton Heritage
Terry Galvin Fullerton Heritage

Welcome and Introductions:

Attendees introduced themselves and confirmed their respective titles and roles in their positions and associations. A welcome was provided to all attendees and stated their presence and comments will be a great help to improve the Architecture Department, direction, and goals.

Review and Reaffirmation of existing and proposed Certificates, Degrees, and Courses:

The attendees reviewed and reaffirmed the existing and proposed Certificates, Degrees and Courses as follows:

Current Courses

Arch 111F Introduction to Architecture

Catalog Description
54 hours lecture per term. This course is designed for architecture majors as well as people interested in learning more about the architectural profession. The focus is split into two areas of emphasis. Architectural theory and history are explored from ancient civilizations to the present trends in design. The practical/business side of architecture is discussed, the topics include education requirements and job opportunities as well as the architect's perceived role in our society. (CSU) (UC) (Degree Credit)

Schedule Description
This course incorporates two areas of architecture; theory and history including the practical business of architecture.

Student Learning Outcomes

1. Upon successful completion of ARCH 111 F, the student will be able to define what an Architect does.
2. Upon successful completion of ARCH 111 F, the student will be able to discuss the philosophies and design principles of architects.

Arch 113F Architectural Drawing

Catalog Description
36 hours lecture and 72 hours lab per term. This course is designed to develop graphic and visualization skills, and its link as a means of externalizing, evaluating, and communicating ideas. It will include both freehand and mechanically constructed type of orthographic, axonometric, oblique, and lineal perspective drawings on two-dimensional surfaces. It is intended to develop the use of instruments, lettering, line weights, graphics, and presentation layout. The media to be used will include pencil, ink, colored pencil, and markers. (CSU) (UC) (Degree Credit)

Schedule Description
This course introduces principles and methods architectural freehand and mechanically-constructed drawings in orthographic, axonometric, and lineal perspective representation.

Student Learning Outcomes

1. Utilize a range of drawing media and drafting tools.
2. Articulate and present imagined ideas in a format that represents professional and formal illustration.

Arch 114F Materials and Methods

Catalog Description
54 hours lecture per term. This course covers the various types of building materials used in construction and their applications in the formulation of specifications for building design. (CSU) (Degree Credit)

Schedule Description
This course covers various types of building materials used in construction and their applications in the formulation of specifications for building design.

Student Learning Outcomes

1. Demonstrate an understanding of construction materials.
2. Demonstrate effective material application skills to given construction project scenarios.

Arch 124F Architectural Cad I

Catalog Description
36 hours lecture and 54 hours lab per term. This is a beginning course in using the CAD system for architectural applications. The course covers elementary principles associated with the various menu and command structures in computer-assisted drafting. Topics included are file management, layering, symbol libraries, orthographic projection, dimensioning, line types and the generation of text. (CSU) (Degree Credit)

Schedule Description
This course is an introduction to the use of CAD as a tool for architectural applications. Software covered in this course will be AutoCAD.

Student Learning Outcomes

1. Employ the basic skills achieved of computer assisted drafting and design.
2. Participate in advanced architectural CAD courses by identifying the components of a CAD System.

Arch 125F Design Studio I

Catalog Description
Prerequisite: ARCH 111 F with a grade of C or better. Advisory: ARCH 113 F. 54 hours lecture and 54 hours lab per term. This course introduces the student to the formal and spatial language of architecture. Assignments will be explored in the form of studio projects. Such projects will be the analysis of case studies, and their integration in the design process (CSU) (Degree Credit)

Schedule Description
This course introduces the student to the formal and spatial language of architecture. Assignments will be explored in the form of various studio projects.

Student Learning Outcomes
1. Demonstrate the use of media and graphic representation techniques.
2. Discuss design techniques and use them to solve problems.

Arch 215F Design Studio II

Catalog Description
Prerequisite: ARCH 125 F with a grade of C or better. 54 hours lecture and 54 hours lab per term. The course is a continuation of Design Studio I to further enhance skills in the development of a personal theory of design. Students will extend their understanding in such areas as visualization, decision making, and evaluation. (CSU) (Degree Credit)

Schedule Description
This course is a continuation of Design Studio I. Students will enhance their skills in visualization, decision-making and evaluation.

Student Learning Outcomes
1. Apply in-depth acquisition of the skill of spatial manipulation.
2. Participate in advanced design studio activities.

Arch 225F Design Studio III

Catalog Description
Prerequisite: ARCH 215 F with a grade of C or better. 54 hours lecture and 54 hours lab per semester. This course is a continuation of Design Studio II to further enhance skills in understanding the organization of design and emphasis on the means of architecture. Site analysis and building orientation will be explored. Two and three-dimensional drawings and model building will be produced. (CSU) (Degree Credit)

Schedule Description
This course is a continuation of Design Studio II to further the understanding of organization of design and emphasis on the means of architecture. Site analysis and building orientation will be explored. Two- and three-dimensional drawings and model building will be produced.

Student Learning Outcomes
1. Participate in the analytical process of relating various construction features to abstract design.
2. Participate in advanced design studio activities.

Arch 924F Architectural Cad II Beginning Revit

Catalog Description
Advisory: ARCH 124 F. 36 hours lecture and 54 hours lab per term. This is an intermediate course that utilizes the CAD system for architectural applications. The course incorporates principles associated with

the various menu and command structures in computer-assisted drafting to develop solutions to 2D and 3D design problems. (Degree Credit)

Schedule Description
This course deals with residential construction as applicable to the present professional standards in terms of technical drafting and 2-D and 3-D computer drafting. It utilizes Revit Architecture as a tool for the completion of a set of construction documents.

Student Learning Outcomes
1. Describe the components used in Architectural CAD for Residential Construction.
2. Complete a set of residential construction drawings.

Arch 934F Architectural Cad III Advanced Revit

Catalog Description
Prerequisite: ARCH 924 F with a grade of C or better. 36 hours lecture and 54 hours lab per term. This is an advanced course utilizing the CAD system to produce a set of construction documents. This course deals with commercial construction as applicable to the present professional standards in terms of technical drafting and 2-D and 3-D computer drafting. (Degree Credit)

Schedule Description
This course deals with commercial construction as applicable to the present professional standards in terms of technical drafting and 2-D and 3-D computer drafting. It utilizes Revit Architecture as a tool for the completion of a set of construction documents.

Student Learning Outcomes
1. Describe the components used in Architectural CAD for Commercial Construction.
2. Complete a set of commercial construction drawings.

Proposed Courses

Arch 112F Introduction to Historic preservation

Catalog Description
54 hours lecture per term. This course is designed for architecture majors as well as people interested in learning more about architecture historic preservation. The focus is split into two areas of emphasis. Historic preservation theory and history are explored with the present trends and case studies. The practical/business side of architecture historic preservation is discussed, the topics include education requirements and job opportunities as well as the application in our society. (CSU) (UC) (Degree Credit)

Schedule Description
This course incorporates two areas of architecture historic preservation; theory and history including the practical business of architecture historic preservation.

Student Learning Outcomes
1. Demonstrate an understanding of the theory and history of historic preservation.
2. Demonstrate an understanding of the business and practices used in historic preservation.

Arch 115F Architecture Digital Graphics

Catalog Description
36 hours lecture and 72 hours lab per term. This is a beginning course that utilizes computer software for architectural applications. The course incorporates principles associated with the various menu and command structures in computer-assisted software to develop solutions to 2D and 3D design problems. (Degree Credit)

Schedule Description
This course deals with three-dimensional design as applicable to the present professional standards in terms of technical drafting and 2-D and 3-D computer drafting. It utilizes Sketchup as a tool for the completion of a set of drawings and utilizes Lumion for photo realistic renderings

Student Learning Outcomes
1. Utilize various software programs that create two dimensional and three-dimensional images.
2. Articulate and present imagined ideas in a format that represents professional and formal illustration.

Arch 228F Sustainable Architectural Design

Catalog Description
54 hours lecture and 54 hours lab per semester. This course covers the various types of building materials used in sustainable architecture design with exploration of building materials and their applications. Special emphasis will be discussions of use of materials and their effect on the environment and materials used in green energy design. Two and three-dimensional drawings and model building will be produced. (CSU) (Degree Credit)

Schedule Description
This course covers the various types of building materials used in sustainable architecture with exploration of building materials and their applications. Two and three-dimensional drawings and model building will be produced.

Student Learning Outcomes
1. Demonstrate an understanding of the various building materials used in sustainable architectural design.
2. Demonstrate an understanding of the use of materials and their effect on the environment.

Current Degrees and Certificates

Architecture Associate in Science Degree

Courses (37 Units)

Arch 111F Introduction to Architecture
Arch 114F Materials and Methods
Arch 115F Architecture Digital Graphics
Arch 124F Architectural CAD 1
Arch 125F Design Studio I
Arch 215F Design Studio II
Arch 225F Design Studio III
Arch 228F Sustainable Architectural Design
Arch 924F Architectural CAD II Beginning Revit
Arch 934F Architectural CAD III Advanced Revit
CSTR 035F California Accessibility and Energy Codes

Student Learning Outcomes
1. Describe, demonstrate, and apply the process of building design in spatial relationships, construction materials and techniques and present these concepts with the use of various media for visualization for entry level work in Architecture.
2. Describe, demonstrate, and apply the process of creating drawings with use of various software programs to adequately present these documents with the use of various printing equipment for entry level work in the Architecture field.

Architectural CAD Technology Certificate

Courses (18 Units)

Arch 111F Introduction to Architecture
Arch 114F Materials and Methods
Arch 124F Architectural CAD 1
Arch 924F Architectural CAD II Beginning Revit
Arch 934F Architectural CAD III Advanced Revit
Bus 180F Small Business Management

Restricted Electives (6-9 Units)

CSTR 035F California Accessibility and Energy Codes
CSTR 041F International Residential Code
COMM 135F Essentials of Argumentation

Student Learning Outcomes

1. Point out graphic principles/standards and conventions used in 2D/3D architectural design.
2. Generate drawings using design tools and equipment of the profession.

Architectural Mini CAD Certificate

Courses (9 Units)

Arch 124F Architectural CAD 1
Arch 924F Architectural CAD II Beginning Revit
Arch 934F Architectural CAD III Advanced Revit

Student Learning Outcomes

1. Generate and prepare CAD drawings using AutoCAD and Revit.

Proposed Certificate

Courses (18 Units)

Architecture Historic Preservation Certificate

Anth 103F Introduction to Archaeology
Arch 112F Introduction to Historic Preservation
Arch 115F Architecture Digital Graphics
IDES 180F History of Architecture and Furnishings I
IDES 190F History of Architecture and Furnishings II
Arch 228F Sustainable Architectural Design

Restricted Electives (6-9 Units)

Arch 924F Architectural CAD II Beginning Revit
CSTR 035F California Accessibility and Energy Codes
PHOT 275F Drone Photography

Student Learning Outcomes

1. Attain an understanding of the history, theory, and practices of historic preservation in architecture
2. Define the principles and vocabulary of historic preservation and its processes

Program Needs:

Discussion was on the existing and future needs of the Architecture Department. The courses have been steadily increasing in student count over the last several years and will continue to see growth. This growth will require additional space to accommodate the students and course being offered. Currently the department occupies only a single classroom with other classrooms used as overflow where needed. The request is to expand the existing room to merge with the adjoining room to create a true design studio environment which will allow for more flexibility and equipment for all courses.

Revisions to Certificates and Science Degree:

Discussion was on the existing Internship course as reflected in the Science Degree and the Cad Technology Certificate. CTE has provided an alternate course listed as Tech 295 Internship in Technology I in which students can enroll in this course to gain work experience in their related field. This allows for the revision to the Science Degree and the CADS Technology Certificate to delete this course. Another revision to the Science degree is to replace Arch 113F Architectural Drawing with the new course Arch 115F Architectural Digital Graphics that will best reflect the changes in the industry.

Comments:

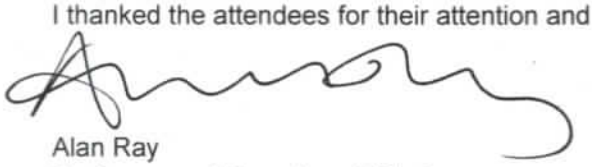
Attendees reviewed and approved all the existing and proposed courses presented. The existing Certificates and Degrees presented were approved with the recommended changes without objection. The proposed Certificate was reviewed and approved without objection.

Ernie Kelsey stated he was very excited to see a proposed Certificate in Historic preservation as presented. He also stated these courses for this certificate can provide information regarding the Historic Building Code and other knowledge in this field which will be a great help to aspiring students and architects. The Fullerton Heritage would gladly provide $250 or $500 scholarships for students studying in the historic preservation field. Terry Galvin stated that knowledge of the Historic Building Code would be a strong item of interest.

Olivia Barajas was very pleased with the direction of the programs and courses presented. She stated it would be a great access if these courses were also to UC schools as well as Cal State schools. The goal would be to have these existing and new courses to be provided with this transfer capability. Ken Starkman stated Scott Lee would be a source to contact to assist in any articulation documentation with any Cal State and UC school programs.

Ken Starkman stated that he sees the potential of this department and the proposed courses and certificates to have a great impact and the need for additional space requested is justified. There is always a need to improve the existing classrooms and equipment for courses which will greatly benefit the students.

I thanked the attendees for their attention and comments regarding the Architecture Department



Alan Ray
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