



COURSE OUTLINE

ARC 121
Course Number

Architecture Basic Design I
Course Title

5
Credits

1 Lecture / 8 Studio hours per week
Hours: lecture/laboratory/other (specify)

Catalog description:

Explores fundamental principles and elements of design: form, space, composition, systems, context, imagery, functional and structural organizations. Solutions to architectonic design projects explored through critical analysis, sketching, process drawings and study models. Traditional and digital media tools are used as a means of communicating architectural ideas. Fall offering.

Co-requisites: ART 103 or divisional permission.

Required texts/other materials:

Francis D.K. Ching, *ARCHITECTURE Form, Space, and Order*; includes CD-ROM;

ISBN: 0-471-75216-9

Edition / Copyright: third

Publisher: John Wiley & Sons, Inc.

Mo Zell, *ARCHITECTURAL DRAWING COURSE*

ISBN: -13: 978-0-7641-3814-0

Edition / Copyright: first/2008

Publisher: Barron's Educational Series, Inc.

References:

Clark, Roger H. and Pause, Michael, *PRECEDENTS IN ARCHITECTURE*,
3rd edition 2005

Publisher: John Wiley & Sons, Inc.

Crowe, Norman and Laseau, Paul, *VISUAL NOTES*

ISBN: 0-471-28959-0;

Edition / Copyright: 84 -Current Edition

Publisher: John Wiley & Sons, Inc.

Friedman, Jonathan Block, *CREATION IN SPACE*

Edition/Copyright: Current Edition

ISBN: 0-7872-2383-2

Publisher: Kendall/Hunt Publishing Company

Unwin, Simon, *analyzing ARCHITECTURE*

Edition/Copyright: Third Edition/2009

ISBN: 978-0-415-48928-7

Publisher: Routledge

Last revised: 2009

Course coordinator: Prof. Marilyn L. Dietrich, dietricm@mccc.edu, (609) 586-4800, ext. 3328

Information resources:

In addition to reference books listed above, additional books, periodicals, and other print materials are available in the College library, in local libraries, and/or in the freshman architecture studio, ET 213.

Course Competencies/Goals:

The student will be able to:

- Knowledgeably employ the various stages of the creative thought process (including critical thinking skills) in the task of producing an architectural design.
- Analyze an architecture project statement and identify the specific issues that need to be addressed.
- Develop a concept (hypothesis) and, through an iterative and reflective design process, produce design strategies (partis) that support/express the concept and translate it into physical form.
- Use as tools for thinking and representation a combination of traditional and digital drawing and modeling techniques
- Utilize model-building techniques to produce study models and presentation models.
- Make a verbal and visual (2-dimensional and 3-dimensional) presentation of his/her work.

General Education Knowledge Goals and Core Skills:

General Education Knowledge Goals

Goal 1. Communication. Students will communicate effectively in both speech and writing.

Goal 2. Mathematics. Students will use appropriate mathematical and statistical concepts and operations to interpret data and to solve problems.

Goal 4. Technology. Students will use computer systems or other appropriate forms of technology to achieve educational and personal goals.

Goal 6. Humanities. Students will analyze works in the fields of art, music, or theater; literature; philosophy and/or religious studies; and/or will gain competence in the use of a foreign language.

Goal 8. Diversity. Students will understand the importance of a global perspective and culturally diverse peoples.

MCCC Core Skills

Goal A. Written and Oral Communication in English. Students will communicate effectively in speech and writing, and demonstrate proficiency in reading.

Goal B. Critical Thinking and Problem-solving. Students will use critical thinking and problem solving skills in analyzing information.

Goal D. Information Literacy. Students will recognize when information is needed and have the knowledge and skills to locate, evaluate, and effectively use information for college level work.

Goal E. Computer Literacy. Students will use computers to access, analyze or present information, solve problems, and communicate with others.

Goal F. Collaboration and Cooperation. Students will develop the interpersonal skills required for effective performance in group situations.

Goal G. Intra-Cultural and Inter-Cultural Responsibility. Students will demonstrate an awareness of the responsibilities of intelligent citizenship in a diverse and pluralistic society, and will demonstrate cultural, global, and environmental awareness.

Units of study in detail:

Unit I: Principles of Unity in Architectonic Design

The student will be able to:

- Recognize the contrast between two-dimensional patterns and three-dimensional volumes of space.
- Discover through exploration how volumes of solid and void organize space.
- Demonstrate an understanding of rudimentary principles of physics as they apply to three-dimensional structures.
- Express principles of unity in a three-dimensional composition.
- Comprehend and apply the principles of orthographic projection (plan and section) in hard-line and freehand architectural drawings.

Unit II: Principles of Dialog in Architectonic Design

The student will be able to:

- Comprehend and explain the term “dialog” as used in architectonic composition.
- Comprehend and apply the properties of form (shape, size, color, texture, position, orientation, visual inertia) to create a composition that expresses architectonic dialog.
- Analyze, identify and respond to the parameters and geometric properties of a given site/field.
- Express the principles of dialog in three-dimensional compositions and in their arrangement on a given site/field.
- Comprehend and apply the principles of orthographic projection (plan and section) in hard-line and freehand architectural drawings.

Unit III: Defining Architectonic Space - Continuity, Complexity, and Relativity

The student will be able to:

- Discover through exploration how the primary elements of point, line, plane and volume relate to and determine architectural space.
- Discover through exploration basic issues of architectural design: simplicity and complexity, proportion and scale, and relationships of parts to the whole.
- Through research and investigation, identify sets of factors that relate to the perception of spatial complexity.
- Develop the ability to select and define a hypothesis (concept) and design strategy (parti) for investigating spatial complexity.
- Consciously (deliberately) manipulate the number, attributes and organization of architectural elements (floors, walls, and roofs) to create spatial compositions of relative complexity.
- Comprehend the difference between a hypothesis (concept) and the design strategy (parti) that leads to a direct expression of the concept.
- Communicate explicitly in words and diagrams the hypothesis (concept) and design strategy (parti) investigated and the discoveries made in the investigation.
- Utilize model-building techniques to produce study models and presentation models.

Unit IV: Modes of Interpretation: Analysis, Translation, and Transformation

The student will be able to:

- Analyze a given painting by looking at it critically
- Use analytic diagrams to express an understanding of the basic design issues and the formal organization of the composition
- Translate the 2-dimensional composition of the painting into 3-dimensional compositions of volumetric solids and voids.
- Utilize the analyses of the painting to generate interpretations (hypotheses/concepts) and transformations (design strategies/partis) into 3-dimensional compositions of positive and negative space
- Discover, through a series of iterative, 3-dimensional studies, the relationship between the planes, volumes, shapes and interstitial spaces of the 3-D composition
- Write a one- to two- page critical paper about the painting and its author
- Comprehend and apply the principles of orthographic projection and axonometric drawing in hard-line and freehand architectural drawings.
- Utilize model-building techniques to produce study models and presentation models.

Unit V: Exploring Landscape: the Definition of Place

The student will be able to:

- Demonstrate an understanding of the basic design components of a design medium previously studied (e.g. a painting), through the reflective interpretation of them in the creation of a physical landscape
- Show an understanding of the definition, identity, and nature of the following conditions - *threshold, path, and goal* - as they pertain to the previously studied design medium
- Interpret these conditions by expressing them through the creative manipulation of the landscape
- Read, comprehend, and interpret and draw the components of a landscape site plan
- Analyze and diagram the salient features of a landscape.
- Utilize model-building techniques (digital and/or physical) to produce study models of the landscape.
- Utilize sketching, diagramming, and study models to explore and depict alterations to the landscape.

Unit VI: Portfolio

The student will be able to:

- Select work from all projects during the course of the semester that is representative of the student's best effort and development as a designer
- Compose the selected work into a cohesive and logically-ordered portfolio that includes traditional and digital representation

Evaluation of student learning:

Grading of Projects – 75% of course grade

IMPORTANT NOTE: All assignments and gathering of research will be completed outside of class time. Students are expected to devote at least 10 additional hours per week to this course beyond scheduled class meeting times.

All component stages of each project (including the final stage) are due at the date and time indicated at the outset of each stage. For the final stage of each project, a drop of one full letter grade will be given to a project submitted at the same specified hour at the next class meeting time. A project submitted after this late period will be reviewed, but will receive the grade of “F”.

The grades of all projects except the last will be of equal value. The last project will have a value two times that of each of the preceding projects.

The student is responsible for his/her regular attendance, participation in studio discussions and reviews of student work, and for on-time submission of his/her work for discussion and evaluation.

The following statement is meant to clarify the evaluation criteria in studio work. Individual work will be graded in consideration of these criteria. Values of quality, aesthetics, etc., are based upon the instructor’s judgment of the work produced, the effort employed, and the total result achieved.

Analytic Skills:

- An ability to understand and identify the problem, its specific components, particularity, and constraints.
- An ability to apply logic and intuition to discern possible strategies for resolving the major and minor issues that need to be addressed in the problem.

Synthetic Skills:

- An ability to harmoniously satisfy and integrate all aspects of a problem (architectural program) through the development of an appropriate architectural concept and its expression in physical form as an architectural design.

Technical Skills:

- An ability to discern and resolve the major problems inherent in the architectural design.
- An ability to produce a clear and explicit presentation of the architectural design, 2-dimensionally and 3-dimensionally, verbally and visually.

Participation:

- An ability to communicate effectively one-on-one with the course instructor and other students.
- An ability to make productive contributions to the studio-learning environment through group interaction and sharing of ideas.

The grade of "A" will be earned by students who demonstrate mastery of the essential objectives of the project, as well as demonstrating excellence in aesthetics and originality, and in completing course objectives and learning unit objectives with at least 90% accuracy.

The grade of "B" will be earned by students who demonstrate more than adequate mastery of the essential objectives of the project, as well as demonstrating a more than adequate level of aesthetics and originality, and in completing course objectives and learning unit objectives with at least 80% accuracy.

The grade of "C" will be earned by students who demonstrate adequate mastery of the essential objectives of the project, as well as demonstrating an adequate level of aesthetics and originality, and in completing course objectives and learning unit objectives with at least 70% accuracy.

The grade of "D" is undesirable and indicates a less than adequate mastery of the essential objectives of the project and a less than adequate level of aesthetics and originality, with a minimum level of completion of course objectives and learning unit objectives.

The grade of "F" will be earned by students who do not demonstrate achievement.

Professionalism – 25% of course grade

Professionalism refers to the degree of seriousness and commitment the student brings to his/her work in the course. It includes the willingness to practice patience, curiosity, determination and thoroughness in exploring the many possibilities as they emerge in the natural course of the design process. It includes regular, on-time attendance in all lectures and studio classes, completing assignments on time, maintaining a course notebook, and contributing constructively to the overall demeanor and learning atmosphere of the lecture and studio.

Notebook: The student will maintain a notebook (3-ring binder) of all of the following: handouts from each class, notes taken in class, homework assignments, and research and note-taking done outside of class. Grading of the notebook will be based on the degree of its completeness, organization and neatness as evidence of an ordered and scholarly approach to the work of this course.

Grading of professionalism will also reflect the student's sincere effort to strive for, develop, and demonstrate the following specific criteria:

Contribution: To support the creative learning environment through excellence in behavior and attitude, individually and collectively.

Dedication: To the study of architecture, including the willingness to put forth the time and effort to search and explore, study and analyze, and to develop and nurture the ability to imagine and create and follow-through to completion each design project. This includes a wholehearted commitment to practice and utilize an iterative and reflective design process.

Commitment: To embrace a sincere and open-minded attitude toward new ideas, approaches and interpretations of what constitutes good architecture, including a new sense of aesthetics, structure and materials, construction and technology.

Devotion: To a progressively expanding learning process and to cultivating the intellectual skills required to understand the principles of design.

To recognizing, acknowledging, and appropriately following the various stages of the creative thought process.

Academic Integrity Statement:

Students are expected to comply with the college-wide requirements for academic integrity. Mercer County Community College is committed to Academic Integrity—the honest, fair, and continuing pursuit of knowledge, free from fraud or deception. This implies that students are expected to be responsible for their own work. Presenting another individual’s work as one’s own and receiving excessive help from another individual will qualify as a violation of Academic Integrity. The entire policy on Academic Integrity is located in the Student handbook and is found on the college website

(http://www.mccc.edu/admissions_policies_integrity.shtml).

Special Needs

Any student in this class who has special needs because of a disability is entitled to receive accommodations. Eligible students at Mercer County Community College are assured services under the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973. If you believe you are eligible for services, please contact Arlene Stinson, the Director of Academic Support Services.