**COURSE SYLLABUS**

**DATE: SUMMER**

**CURRICULA IN WHICH COURSE IS TAUGHT: Residential Design and Estimation**

**COURSE NUMBER/TITLE: ARC 211 Topics in 3D Architectural Design**

**DIVISION: Business & Engineering Technologies**

**CREDIT HOURS: 3 HOURS/WEEK LECTURE: 3 HOURS/WEEK LAB: 0 LEC/LAB COMB: 3**

1. **Catalog Description:**

ARC 211 **3D Architectural Design** (3 cr.)— Introduces a parametric 3D architectural software to students. This course focuses on the software applications and uses. Students will gain an understanding of building plan development and layouts as well as elevations, details, 3D modeling, creation of a virtual walkthrough, development of material list, site plans, photo realist renderings, development of construction plans including notes and dimensions.

1. **Relationship of the course to curricula objectives in which it is taught:** 
   1. Demonstrate professional drafting practices.
   2. Choose proper manufacturing processes and materials.
   3. Define and draw objects using proper size, shape, form and spatial relationships
2. **Required background:**

A proficiency in computer use and operations.

1. **Course Content:**
   1. General Overview of Chief Architect
   2. Accessing default settings
   3. Default Settings
   4. Saving new default settings to new template.
   5. File Storage and Management
   6. Building the Shell
   7. Setting Platform Depths and Ceiling Heights
   8. Roof Development
   9. Foundations
   10. Additional Floors
   11. Stairs
   12. Adding Detail Components
   13. Soffits
   14. House Wizard
   15. Importing Details
   16. Framing Tools
   17. Using Training CD’s
   18. Adding Backgrounds
   19. Developing Terrains
   20. Modifying and Creating Materials
   21. Material List and Plan Checks
   22. Rendering
   23. VRML exports
   24. Layouts
2. **The following general education competencies and objectives will be addresses in this course:**

Critical Thinking

Quantitative Reasoning

Information Literacy

Scientific Reasoning

Communication

Learning Skills

Interpersonal Skills and Human Relations

Computational and Computer Skills

Understanding Science and Technology

1. **Learner Outcomes:**
2. The ability to interpret floor plans
3. The ability to create floor plans and developments from normal sketches and create 3D models from them.
4. The ability to interpret wall specifications and create wall types.
5. The ability to select and specify materials, textures, appliances and components for complete design applications.
6. The ability to solve an elementary design problems
7. **Evaluation:**

Evaluation is based upon lab performance and correct completion of assignments