## COURSE SYLLABUS

<table>
<thead>
<tr>
<th>Course Title:</th>
<th>CAD 3D Architectural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department:</td>
<td>Business and Technology</td>
</tr>
<tr>
<td>Curriculum:</td>
<td>Technology Studies</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Course Code: (eg. ACC 101)</th>
<th>CAD*204</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Type:</td>
<td>L/B/X</td>
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### Course Descriptors:
Make certain that the course descriptors are consistent with college and Board of Trustees policies, and the current course numbering system.

| Prerequisites: | C- or better in CAD Mechanical AutoCAD (CAD*133). |

| Elective Type: | G |

### Catalog Course Description:
Applies engineering and technological principles to the design of residential and light commercial structures. Students will create architectural drawings and three-dimensional models using AutoCAD software.

### Credit Hours:
- 3

### Developmental:
- No

<table>
<thead>
<tr>
<th>Lecture:</th>
<th>3</th>
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<tbody>
<tr>
<td>Clinical:</td>
<td>0</td>
</tr>
<tr>
<td>Lab:</td>
<td>1</td>
</tr>
<tr>
<td>Studio:</td>
<td>0</td>
</tr>
<tr>
<td>Other:</td>
<td>0</td>
</tr>
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### Contact Hours:
- TOTAL: 4

### Class Maximum:
- 19

### Semesters Offered:
- Fa, Sp

### Topical Outline:
- List course content in outline format.

1. Introduction and orientation to architectural drafting and design
2. Building codes
3. Interior Design
4. Exterior Design
5. Energy Efficiency
6. Floor Plans
7. Mechanical Plans
   a. Plumbing
   b. Heating
   c. Ventilating
   d. Air Conditioning
## Outcomes:
Describe measurable skills or knowledge that students should be able to demonstrate as evidence that they have mastered the course content.

| e. Electrical |
| 8. Elevations |
| 9. Sections |
| 10. Roof Plans |
| 11. Architectural Rendering |
| 12. Light Commercial Design |

Upon successful completion of this course, the student will be able to do the following:

### COURSE:
1. utilize currently available Computer Aided Drafting (CAD) software and hardware in order to solve architectural design problems
2. apply current engineering standards when completing architectural drawings
3. create residential and light commercial floor plans, schedules, site plans, sections, framing plans, roof layouts, and rendered images using CAD software
4. define terminology associated with residential and light commercial structures

### PROGRAM: (Numbering reflects Program Outcomes as they appear in the college catalog)

#### TECHNOLOGY STUDIES ASSOCIATE DEGREE:
3. Apply the basic concepts of science and mathematics to the study of electricity and electronics, materials, computer-aided design (CAD), manufacturing, and construction.
4. Utilize appropriate computer software when creating technical drawings and presentations.
5. Create two-dimensional technical drawings, solid models, and surface models, according to current engineering standards.
7. Demonstrate technical competency in a functional area of technology. The specialization may include, but is not limited to: electricity, computer aided drafting and design, manufacturing, and construction.

### GENERAL EDUCATION: (Numbering reflects General Education Outcomes as they appear in the college catalog)

## Evaluation:
List how the above outcomes will be assessed.

Assessment will be based on the following criteria:
- Homework
- Hands-on projects
- Quizzes and exams

## Instructional Resources:
List library (e.g. books, journals, on-line resources), technological (e.g. Smartboard, software), and other resources (e.g. equipment, supplies, facilities) required and desired to teach this course.

Required: Computer Lab with CAD software
Desired:

## Textbook(s)
Refer to current academic year printout.