CGD 30 – Environmental Design I  
Spring 2013

Units: 3  Hours: 2 Lecture & 3 Lab  Room No. LI126  
Tues/Thurs 2:20-3:40 P.M.

Instructor: Dr. Colette Marie McLaughlin  
email: cmclaughlin@gavilan.edu  
Office Hours: by appointment  
Class webpage: http://hhh.gavilan.edu/cmclaughlin/cgd30

Course Description: Provides interdisciplinary skills associated with environmental design careers that rely upon building information modeling (BIM) for developing and producing construction documents for environmental design projects. Develops skills to produce plans for residential remodels, landscape and interior design projects or other specialized structures. Course includes introduction to ArchiCAD and/or other technical design tools, building codes and sustainable design concepts. Applies systems engineering methodologies to design projects that meet user’s needs and integrate structural, mechanical and plumbing systems in a cost effective and environmentally sound manner. Prepares students for entry level technical positions in and/or university transfer to civil engineering, architecture and other environmental design careers.

Advisory: Satisfactory score on the English and Math Placement exams, or a grade of "C" or better in English 250, completion of Math 233 or two years of high school Algebra and CGD 2 with grades "C" or higher.

Overview of activities to support learning: CGD 30 provides individual, group and team activities to develop skills and knowledge to choose then prepare for and succeed in preferred design field. Lectures, demonstrations, readings, research, field experiences as well as peers’ and your own prior knowledge are used to enhance fundamental competencies in computer graphics and design. Topics covered include freehand sketching, topography and design basics along with an overview of industry standards, orthographic drawings and 3D modeling. SolidWorks, other parametric and/or industry standard software will be used to generate design, production and presentation drawings to explain, fabricate and market simple products using computer graphics and design skills.

Expected learning outcomes: Students will be able to:

STUDENT LEARNING OUTCOMES:
- Create working drawings for project in compliance with environmental planning/architectural standards
- Integrate sustainable practices/standards into design
- Develop a design that describes and serves the needs of users
- Select materials that satisfy user needs in cost effective energy efficient manner.
- Design & prepare presentations to apply for entry-level positions or university to meet career objective

Required Texts:

Recommended Texts:

Additional Readings: See iLearn and website for additional readings that are provided in class throughout the semester when needed to support lectures and assignments.

Syllabus: The most current syllabus is available at 
http://hhh.gavilan.edu/cmclaughlin/cgd30/cgd30syllabus2013-spring.pdf

Supplies: An HB pencil, eraser and paper are minimal requirements for sketching exercises. You will need purchase at least one 1GB USB flash drive for file transfer and storage. Headphones are required for audio use.

27 Jan. 2013
Computer Graphics Lab & Arranged Hours: Gavilan’s CGD 30 requires students to complete 2.33 arranged hours per week in addition to lecture to work on projects in and outside Computer Graphics Lab (Li 126) is an interdisciplinary supervised lab that supports this requirement. CGD lab provides technology to complete projects, practice computer graphic skills and obtain individualized computer assisted instruction to learn a wide range of other computer graphic programs. Half your participation Grade is based on completing these hours.

Evaluation/Grading: Your final grade is calculated using seven performance measures.

- **Participation:** credit for collaboration and contributions to both your own and your peers’ success in class and lab.
- **Homework:** sketch assignments that demonstrate your ability to apply concepts discussed in class.
- **Assignments:** additional assignments to apply and practice
- **Research Projects:** assess your ability to find, apply and document relevant sources of information
- **Design Projects:** evaluates the development of your products during all design phases.
- **Portfolio:** grades the presentation of your projects in an electronic portfolio.
- **Midterm and Final Exams:** design problems/assignment evaluate knowledge of skills and concepts.

Grades: Mastery of CGD learning outcomes is evaluated using multiple measures. You may improve grades on assignments by making necessary revisions and resubmitting work by final exam. With instructor’s approval, you may enter into a contract to substitute equivalent individualized work for required projects and exercises. If you earn excellent participation your final grade be will rounded up should your final percentage fall within one percent of next grade. Study guides for review and practice will be provided prior to each exam. Evaluation information is further described below.

### Grade Distribution

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<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Participation</td>
<td>15%</td>
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<tr>
<td>Homework</td>
<td>10%</td>
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<tr>
<td>Assignments</td>
<td>10%</td>
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<tr>
<td>Design Projects</td>
<td>25%</td>
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<tr>
<td>Portfolio</td>
<td>10%</td>
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<tr>
<td>Midterm</td>
<td>10%</td>
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<tr>
<td>Final Exam</td>
<td>20%</td>
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Deadlines: Unless otherwise noted in class, all work and assignments must be submitted to the instructor on date due in appropriate form by 5 p.m. (see web page for details). Other than extraordinary circumstances, a late assignment will be reduced one whole letter grade each week it is overdue.

Attendance Policy: Missing 5 hours of class, without prior arrangements, may result in you being dropped without credit. Additionally, being on time and in class is directly related to your participation grade.

Honesty Policy: Students are expected to exercise academic honesty and integrity. Any form of cheating and plagiarism will result in disciplinary action and may include recommendation for dismissal.

Other Policies:

**Students with special needs:** If you require special services or arrangements due to hearing, visual, or other disability contact your instructor, counselor, or the Disability Resource Center.

**Occupational/Vocational Students:** Limited English language skills will not be a barrier to admittance to and participation in Vocational Educational Programs.