

**COLLEGE OF DUPAGE**  
**ARCHITECTURE 2220 – Architectural Computer Modeling**

Mark Pearson  
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Office Hours: TEC 1050  
M,W,F: 8-9:00am  
T, R: 8-11:00am, R: 3-4:00pm

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**ARCHITECTURE 2220**  
**SPRING SEMESTER 2012**  
Tuesday / Thursday 11:00am – 12:50pm  
Location: TEC 3003

|   |  |
|---|--|
| <b><u>Course Name:</u></b>                | Architecture 2220-Architectural Computer Modeling  |
| <b><u>Credit and Contact Hours:</u></b>   | 2 credit hours (1 lecture hour, 3 lab hours)   |
| <b><u>Prerequisites:</u></b><br>Required: | Computer-Assisted Design/Drafting 1111 or equivalent, or permission of instructor.   |
| <b><u>Textbook: Recommended</u></b>       | <u>Mastering Autodesk 3ds Max Design 2011</u><br>by Jeffrey Harper and Mark Gerhard<br>ISBN-13: 978-0-470-88262-7<br><br><u>3DS Max 2012 Bible</u><br>By Kelly L. Murdock<br>ISBN-13: 978-1118022207 |
| <b><u>Materials:</u></b>                  | Flash drive or CD storage space  |

**Course Description:**

A computer graphics course using CADD and other software to create computer architectural models and presentations. Prerequisite: Architecture 1211 or Computer-Assisted Design/Drafting 1111 or equivalent, or permission of instructor.

**Course Objectives:**

1. Create architectural models using CADD software
2. Apply realistic materials to the models
3. Create realistic lighting scenes
4. Create camera views and animation of the models
5. Develop the models in other software environments
6. Convert the model files to various media

**Topical Outline:**

*This course will include but not be restricted to the following topics:*

1. Model creation and editing
2. Material application and manipulation
3. Light sources
4. Cameras
5. Animation
6. Model enhancement using other software
7. Presentations in various media

### **Attendance:**

Students are expected to attend all classes. There is a great deal of work that students are expected to complete in this class. Absences will severely limit your ability to complete the required assignments. Excused absences must be reviewed with the instructor. If you know you will be missing a class you must review it with the instructor *before* the missed class and all work due must be turned in ahead of time. If you miss class for illness or an emergency any assignments due must be turned in at the beginning of your first class back. Points may be subtracted if you do not contact the instructor and fail to attend on a regular basis.

### **Late Work:**

Late assignments may be turned in up to two weeks after the original due date, after that date late assignments will not be accepted. All assignments are due by the end of the assigned class, otherwise they will be considered late. Late assignments will be reduced by one letter grade.

### **Withdrawal:**

I will give permission for students to withdraw up to the next to last week of the semester. I will *not* give permission during the final week. It is the student's responsibility to request permission to withdraw and to bring the withdrawal form to registration. See the appropriate pages in college catalog for definitions and regulations: [http://www.cod.edu/catalog/AcademicPolPro\\_11-13.pdf](http://www.cod.edu/catalog/AcademicPolPro_11-13.pdf)

### **Incomplete:**

Incompletes will only be granted for serious illness and emergencies or unforeseeable situations outside of the student's control. Students must be current on all assignments prior to the emergency to be granted and incomplete. The student must request an incomplete by the next to last week of the semester. It is the student's responsibility to request an incomplete grade. See the appropriate pages in college catalog for definitions and regulations: [http://www.cod.edu/catalog/AcademicPolPro\\_11-13.pdf](http://www.cod.edu/catalog/AcademicPolPro_11-13.pdf)

### **Electronics:**

Pagers, cell phones, and listening devices will be turned off during class. If you are on call or have extenuating circumstances please discuss them with me outside of class.

### **Academic Honesty:**

Any violations of College of DuPage policies regarding academic honesty and/or integrity will be referred automatically to the appropriate College authorities for disposition. See appropriate pages in the student code of conduct for definitions and regulations. <http://www.cod.edu/resources/studentaffairs/conduct.pdf>

***Any violations of academic honesty policy will result in failure of the course.***

### **Student Network Directories:**

The network directories given to you by the college are only to be used for work related specifically to this course. Student directories are monitored and may only contain course related files. Please refer to board policy #10-126 for your rights and responsibilities as well as the College of DuPage Electronic Communications Guidelines: <http://www.cod.edu/it/security/>

### **General Note:**

In order to achieve the course objectives, it is essential that you enjoy the class in addition to complying with the above requirements and the rules and policies of College of DuPage contained in the catalog and other College materials. If you are having course/College related problems, please feel free to talk to me so that we can resolve them to your satisfaction and benefit.

**Method of Evaluating Students:**

Grading:

Point Distribution:

- |   |             |
|---|-------------|
| 1. Exercises (12 @ 100 points each)       | <b>1200</b> |
| 2. In Class Projects (3 @ 50 points each) | <b>150</b>  |
| 2. Final Project                          |             |
| Exterior Rendering                        | <b>200</b>  |
| Interior Rendering                        | <b>200</b>  |
| Animation ( 50 pts extra credit)          |             |

|              |             |
|--------------|-------------|
| <b>Total</b> | <b>1750</b> |
|--------------|-------------|

**Final Grades will be assigned as follows:**

| <u>Accumulated Points</u> | <u>Grade</u> |
|---------------------------|--------------|
| 1575-1750.....            | A            |
| 1400-1574.....            | B            |
| 1225-1399.....            | C            |
| 1050-1224.....            | D            |
| 1049 or lower .....       | F            |

**Schedule:** (Tentative / Subject to CHANGES)

| Week      | Day | Date   | Lecture  | Lab Activity  | Homework Due                                   |
|-----------|-----|--------|--|---------------|--|
| <b>1</b>  | R   | Jan 12 | Touring the interface<br>Standard Primitives / Move<br>Copy Rotate Transforms<br>Modifiers | Exercise 1    |  |
|           | T   | Jan 17 | Extended Primitives / Groups   | Exercise 1    | <b>Exercise 1: Getting Started</b>             |
| <b>2</b>  | R   | Jan 19 | Extended Primitives / Splines  | Exercise 2    | <b>Exercise 2: Minoan Column</b>               |
|           | T   | Jan 24 | Splines / Boolean  | Exercise 3    |  |
| <b>3</b>  | R   | Jan 26 | Splines / Boolean / Sub-Object<br>Editing  | Exercise 3    | <b>Exercise 3: San Vitale</b>                  |
|           | T   | Jan 31 | Splines / Materials  | Exercise 4    |  |
| <b>4</b>  | R   | Feb 2  | Splines / Materials  | Exercise 4    | <b>Exercise 4: Minoan Column<br/>(splines)</b> |
|           | T   | Feb 7  | Modifiers  | Exercise 5    |  |
| <b>5</b>  | R   | Feb 9  | Modifiers  | Exercise 5    | <b>Exercise 5: Tugendhat Chair</b>             |
|           | T   | Feb 14 | AEC Objects  | Exercise 6    |  |
| <b>6</b>  | R   | Feb 16 | AEC Objects  | Exercise 6    | <b>Exercise 6: AEC Objects</b>                 |
|           | T   | Feb 21 | Autocad and Viz  | Exercise 7    |  |
| <b>7</b>  | R   | Feb 23 | <b>IN CLASS PROJECT #1</b>   | PRESENTATIONS | <i>Favorite Modifier Presentations</i>         |
|           | T   | Feb 28 | Autocad and Viz  | Exercise 7    | <b>Final Project Proposal Due</b>              |
| <b>8</b>  | R   | Mar 1  | Work Class   | Exercise 7    | <b>Exercise 7: Farnsworth House</b>            |
|           | T   | Mar 6  | Terrain Objects  | Exercise 8    |  |
| <b>9</b>  | R   | Mar 8  | Lighting   | Exercise 8    | <b>Exercise 8: Terrain</b>                     |
|           | T   | Mar 13 | <b>IN CLASS PROJECT #2</b><br>Advanced Forms   | In Class #2   | <i>Advanced Forms</i>                          |
| <b>10</b> | R   | Mar 15 | Lighting   | Exercise 9    |  |
|           | T   | Mar 20 | Lighting   | Exercise 9    |  |
| <b>11</b> | R   | Mar 22 | Materials / Entourage  | Exercise 9    | <b>Exercise 9: Exterior Rendering</b>          |
|           | T   | Mar 27 | <b>IN CLASS PROJECT #3</b><br>Bring Digital Photo to Class                                 | In Class #3   | <i>Create your own Entourage</i>               |
| <b>12</b> | R   | Mar 29 | Final Project Work Time  | Final Project | <b>Final Project Wireframe Due</b>             |
|           | T   | Apr 3  | NO CLASS – SPRING BREAK  |               |  |
|           | R   | Apr 5  | NO CLASS – SPRING BREAK  |               |  |

|           |   |        |                              |                                    |  |
|-----------|---|--------|------------------------------|------------------------------------|--|
| <b>13</b> | T | Apr 10 | Staging Files / Views        | Exercise 10                        |  |
|           | R | Apr 12 | Staging Files / Views        | Exercise 10                        | <b>Exercise 10: Interior Rendering</b> |
| <b>14</b> | T | Apr 17 | Advanced Rendering           | Exercise 11                        |  |
|           | R | Apr 19 | Animation                    | Exercise 11                        | <b>Exercise 11: Advanced Rendering</b> |
| <b>15</b> | T | Apr 24 | Animation                    | Exercise 12                        |  |
|           | R | Apr 26 | Final Project Work Day       | Exercise 12                        | <b>Exercise 12: Animation</b>          |
| <b>16</b> | T | May 1  | Final Project Work Day       | Final Project                      |  |
|           | R | May 4  | Final Project Work Day       | Final Project                      |  |
| <b>17</b> | T | May 8  | FINALS WEEK                  | No Class                           |  |
|           | R | May 10 | <b>Final - 11am -12:50pm</b> | <b>Final Project Presentations</b> | <b>Final Project Due</b>               |