



**WEEKLY SCHEDULE**  
**MA350 Advanced Lighting and Texturing**

**Instructor:** Jim Tavernetti

**Contact information:** jtavernetti@gmail.com

Office Phone: 602-335-9496

**Office hours:** *By Appointment*

**Week 1**

- Lecture:** Introduction to Mental Ray and Global Illumination  
Photon behavior in a 3D environment  
Area lights and shadows  
Scene unit set-up and geometry specifications  
Placing, selecting, and modifying lights
- Lab:** Mental Ray Tutorials
- Assignment:** Concept Drawings for Environment An environment must be textured and lit 2 different ways. One with natural and one with artificial light. **Due Week 2**
- Competency:** Develop critical ideas for surface treatment and lighting  
Demonstrate an understanding of global illumination.

**Week 2**

- DUE:** Concept Drawings for Environments  
*Critique assignments*
- Lecture:** Basic Materials  
Focal point and eliciting emotion from environments  
Unwrapping
- Lab:** Modeling the environments
- Assignment:** Begin Modeling Environment. **Due week 5**  
Simple Still Life. **Due week 3**
- Competency:** Apply traditional paint concepts, tools, and techniques for use in computer animation

**Week 3**

- DUE:** Progress on Environment Model  
Unwrapped and Textured Still Life  
*Critique assignments*
- Lecture:** Smoothing: soft/hard normals  
Model integrity  
Poly Count

Bump/Normal and displacement maps  
**Lab:** Work on environment models  
**Assignment:** **Progress on Environment Models Due week 5**  
**Corrections to Still Life Due week 4**  
**Competency:** Apply traditional paint concepts, tools, and techniques for use in computer animation  
Develop critical ideas for surface treatment and lighting

**Week 4** **DUE: Progress on Environment Model**  
**Corrected still life**  
*Critique assignments*  
**Lecture:** Materials, size and file types  
**Lab:** Work on environment models  
**Assignment:** **Complete Environment Model**  
**Competency:** Apply traditional paint concepts, tools, and techniques for use in computer animation  
Develop critical ideas for surface treatment and lighting

**Week 5** **DUE: Completed Environment Model**  
*Critique assignments*  
**Lecture:** Unwrapping large scenes  
Organizing files  
**Lab:** Class critique  
Unwrapping lab  
**Assignment:** **Unwrap Environment**  
**Competency:** Apply traditional paint concepts, tools, and techniques for use in computer animation  
Develop critical ideas for surface treatment and lighting

**Week 6** **DUE: Unwrapped Environment**  
*Critique assignments*  
**Lecture:** Texture collection and photoshop  
Tileable textures  
Specular and reflection maps  
Exterior and Natural Lighting  
**Lab:** Exterior Lighting Lab  
**Assignment:** **Progress on Exterior and Natural Lighting**  
**Competency:** Demonstrate an understanding of global illumination.  
Apply traditional paint concepts, tools, and techniques for use in computer animation  
Develop critical ideas for surface treatment and lighting



Apply traditional paint concepts, tools, and techniques for use in computer animation  
 Develop critical ideas for surface treatment and lighting

**Week 11**                    **DUE: Portfolio Quality Renders** Artificial and Natural lighting  
**Lecture:**                “Portfolio Quality” ceremony  
**Lab:**                        last minute corrections and re-renders for “Portfolio Quality” folder.

**Points Breakdown**

<b>Due</b>	<b>Assignment</b>	<b>Points Possible</b>	<b>Points Earned</b>
All	Participation	15	
Wk #2	Concept Drawings for 2 Environments	15	
Wk #3	Progress on Environment Models – Still Life	10	
Wk #4	Progress on Environment Models – Completed Still Life	10	
Wk #5	Completed Environment Model	30	
Wk #6	Unwrapped Environments	20	
Wk #7	Progress on Interior Environment	5	
Wk #8	Interior Environment	20	
Wk #9	Progress on Exterior Environment	5	
Wk #10	Completed Exterior Environment	20	
Wk #11	Portfolio Quality Renders Exterior and Interior	150	
<b>Total</b>		300	

**Extra Credit Points Breakdown**

You must have a signed document that you are part of a club or attended workshops. You may use the back of the syllabi to obtain these.

All	Clubs and Organizations: First one joined additional	15 10	
All	Workshops and events: First one attended additional	15 10	

<b>MAX</b>		75	
------------	--	----	--

**Total Points** **300**

A	279-300
A-	270-278
B+	261-269
B	249-260
B-	240-248
C+	231-239
C	219-230
C-	210-218
D+	201-209
D	195-200
F	0-194
Late Work	0

This Schedule is subject to change according to the needs of the class as determined by the instructor.