Brooks Institute

Course Syllabus

ACADEMIC FREEDOM STATEMENT

Brooks Institute is committed to protecting and encouraging the principles of academic freedom. Academic freedom provides the foundation for scholarship, teaching and learning, and reflects the Institutes fundamental mission to promote collaboration, critical thinking, and creativity. Essential elements for the intellectual vitality of a college include: the ability to exchange ideas and concepts freely, to explore and disseminate new knowledge, and to speak openly as a professional and as a private citizen. All are encouraged to promote a learning environment that provides opportunities for the free exchange of ideas between faculty, staff and students.

Programmatic Student Learning Outcomes/Mission

The mission of the Bachelor of Fine Arts Degree in Professional Photography program is to prepare students for careers in the field of professional photography through a philosophy of "learning by doing." The program is designed to educate all students in basic and intermediate photographic skills through a shared Lower Division. Students develop a creative style and visual problem-solving skills while engaging in specialized market areas and techniques in the Upper Division. The program integrates liberal arts, professional business practices and ethics with a core photography and media production curriculum that prepares students for the creative, business, and technical challenges of a professional photography career.

Program Description

The 120 semester credit Bachelor of Fine Arts in Professional Photography prepares students for careers in the field of professional photography. The cross-platform philosophy combined with the experiential learning provided by professional photographers/ instructors provides a unique and innovative technical education that develops graduates with a creative style and unique visual problem-solving skills. The program combines 75 semester credits of core photography classes, including business course work, and 45 semester credits of general education studies.

Upon Completion of the Professional Photography Program, students should be able to:

- Effectively use contemporary photographic tools. (Visual Literacy, Adept)
- Effectively use photographic media and asset management software. (Adept)
- Effectively collaborate to accomplish professional goals. (Collaboration)
- Develop and implement an effective marketing program. (Problem Solver)
- Understand professional business and ethics standards. (Ethics)
- Apply creative and sophisticated visual solutions to the challenges of producing visual media.
 (Problem Solver, Visual Literacy)
- Apply effective professional communication skills. (Communication)
- Develop a lifelong learning pattern. (Adept)
- Understand the principals of business management. (Problem Solver, Adept)

Course Title	HDRI/CGI Methods		
Course Code	MDA375		
Credit Hours	3 Semester		
Contact Hours	3 Hours		
Prerequisites	PTT360 or VJN292 or DES300 or FLM117		

Course Type Lecture

Instructor Christy Schuler

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Term Start/End Date September 8 – December 18, 2015

Course Description

This course is an introduction to High Dynamic Range Imaging (HDRI) and Computer Generated Imaging (CGI) as used in automotive and other types of advertising photography. The course introduces students to the basics of the digital capture of high dynamic range images and the compositing techniques of HDR images with CAD files of cars and other products in 3D rendering software. An additional fee is required to cover specialized software and hardware requirements specific to this course.

Learning Objectives

Upon completion of this course the student should be able to:

- Create high dynamic range images using HDRI software.
- Use image-editing applications effectively to enhance background plates
- Apply HDRI files to 3D software applications
- Render CGI files to composite prints suitable for display

Required Textbook(s) None

Course Outline

Week 1: Class to do assigned research on High Dynamic Range Imaging and Computer Generated Imagery. Research paper to be written and submitted. Prepare for render software keyboard stroke test week two.

Week 2: Render software keyboard stroke test. Lecture and demo: Introduction to High Dynamic Range Imaging (HDRI). Shoot three images bracketed to make high dynamic range image. Demo: shooting with spherical panoramic heads.

Week 3: Lecture and demo: Introduction to HDRI software. Create HDRI images and tone mapped images with bracketed images. Quiz.

Week 4:.Create HDR images of images and process for high dynamic range and make tone mapped images. Quiz.

Week 5: Lecture and Demo. Introduction to stitching software. Demo 360° X 180° rig shots. Assign 360° X 180° shots with brackets to be stitched for Image Based Lighting componets, (IBL).

Week 6: Lecture and demo: Introduction to stitching software. Stitch and make hdri for (IBL)

Week 7: Shoot 2 locations with background plates and HDR light probes. Make background plates 8 bit images and HDR light probes high dynamic range images. Test.

Week 8: Production week – work on projects

Week 9: Lecture and demo. Introduction to Render software. Using supplied 3D models. Make low resolution renders. Critique students' 3D digital files.

Week 10: Lecture and demo. Image based lighting, reflection maps, global illumination and texture mapping.

Week 11: Production week – work on projects. .

Week 12: Lecture and demo. Creating (IBL)s in Photo Shop. Introduction to 3D rendering with Photo Shop techniques.

Week 13: Production week – work on projects. Demo using the Alpha channel.

Week 14: Production week – work on projects. Final exam.

Week 15: Render final images in high resolution and submit 3 professional quality prints. Final show of student work with group critique.

GENERAL ASSESSMENT CRITERIA AND METHODS OF EVALUATING STUDENTS Letter grades (A, A-, B+, B, etc.)

The student's overall grade for this class is derived from a combination of online instructional activity, class participation, assignments, quizzes and exams, projects, and final project/final exam. A student's grade will be adversely affected by being tardy to class and by any unexcused absence. Only the instructor can authorize exceptions to class policies, deadlines or grades. Students must confirm (in writing) any exceptions to class policies or deadlines with the instructor. Class work is weighted as follows:

Grade Weighting		
Course Area	%	
Quizzes	10%	
Class Participation	10%	
Assignments	5%	
Final Exam	20%	
Final Projects	55%	

Grading Scales Percent Letter Numeric			
93–100	А	4.00	
90–92	A-	3.70	
87–89	B+	3.30	
83–86	В	3.00	
80–82	B-	2.70	
77–79	C+	2.30	
73–76	С	2.00	
70–72	C-	1.70	
67–69	D+	1.30	
60–66	D	1.00	

Total	100%	0–59	F	0.00	
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DEFINITIONS OF CRITERIA USED IN GRADING

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Outstanding = A	Outstanding work, showing insight and demonstrating ex-	
	cellence in skill and craft. Work goes well beyond what is required	
	required	
Superior = A-, B+	Superior work, shows clear understanding and thorough	
	demonstration of skill and craft	
Good = B, B-	Competent work, clear understanding, often showing crea-	
	tivity and good use of skills	
Satisfactory = C+, C, C-	Adequate understanding, inconsistent demonstration of	
	skills, some elements missing or problems with priorities	
Unsatisfactory = D, F	Lacks understanding, inadequate amount of time and ef-	
	fort demonstrated, many missing elements, inconsistent	
	participation, skill and craftsmanship not demonstrated	

ATTENDANCE POLICY

Each faculty member takes attendance for each class period and posts it to the student's record through the portal. Once absences equal 20 percent of the total number of class meetings, faculty may lower the final grade for the course one full grade and may drop the grade again for each absence after the 20 percent has been reached. Students may review their attendance through the student portal under each course the student is enrolled in.

Students who do not attend during the first week of class may be subject to withdrawal. Brooks Institute may also withdraw any student who has not been in attendance for 14 consecutive days. However, the institute will withdraw any student who has had non-attendance for 35 consecutive days; this timeframe may be extended due to extraordinary circumstances that affect the entire student population. Students will be responsible for all financial obligations incurred if and when they are withdrawn for lack of attendance

Regular classroom attendance is not only an essential ingredient for academic achievement, but it is also a fundamental building block for success. As part of the course requirements, students must attend at least 80 percent of the scheduled time for each course in order to achieve satisfactory attendance. Students in any of the internship courses are required to complete all scheduled hours and record attendance throughout the scheduled course to achieve satisfactory attendance. Students who do not achieve satisfactory attendance may earn a failing grade on their transcripts and may be required to repeat the course. Absences will include tardiness or early departures. Students who are not in attendance for any portion of a class will accrue time absent calculated in percentage increments of 25, 50, or 100 percent of the class period as reflected on each daily roster. Students who have been absent from all their scheduled classes for more than 14 consecutive calendar days, not including scheduled Institutional holidays or breaks, and/or students who officially withdraw from all current courses may be administratively withdrawn from the Institution.

Academic Integrity

Brooks Institute expects all students to exemplify integrity in all academic work. Brooks Institute will not permit students to engage in the following dishonest acts:

- Cheating Cheating includes, but is not limited to, the following: using unauthorized notes, study aids, electronic or other devices not authorized by the instructor. Using or borrowing information from another person, or submitting someone else's work as one's own work including images and motion clips. Using work previously submitted for another purpose, without the instructor's permission, is prohibited. Duplicated use of copyrighted material in violation of federal copyright laws is prohibited.
- Plagiarism Submitting as one's own work, in whole or in part, words, ideas, art, designs, text, drawings, images, motion clips, etc. that were produced by another person without attributing that person as the rightful source of the work. Plagiarism includes, but is not limited to: using words, word passages, pictures, etc. without acknowledgement; paraphrasing ideas without quotation marks or without citing the source.
- Accessory to Dishonesty Knowingly and willfully supplying material or information to another person for the purpose of using the material or information improperly.
- Falsification or Alteration of Records and Official Documents The following are examples of acts under this category, but the list is not exhaustive: altering academic records, forging a signature or authorization on an academic document, or falsifying information on official documents, grade reports, or any other document designed to attest to compliance with school regulations or to exempt from compliance.
- Software Code of Ethics Unauthorized duplication of copyrighted computer software violates the law and is contrary to our organization's standards of conduct. Brooks Institute disapproves of such copying and recognizes the following principles as a basis for preventing its occurrence:
 - Brooks Institute will neither engage in nor tolerate the making or using of unauthorized software copies under any circumstances.
 - Brooks Institute will only use legally acquired software on our computers.
 - Brooks Institute will comply with all license or purchase terms regulating the use of any software we acquire or use.
 - Brooks Institute will enforce strong internal controls to prevent the making or using of unauthorized software copies, including effective measures to verify compliance with these standards and appropriate disciplinary measure for violation of these standards.
- **Communication Devices**-To maintain academic integrity and to eliminate distractions for other students the use of electronic devices in the classroom is dictated by the instructor.

CREDIT ASCRIPTION ADDENDUM

MDA 375 HDRI / CGI Methods - 3 semester credit hours

Type: Lecture

Credit Ascription- The amount of hours spent outside of class and assignment alignment with Course Learning Objectives

Course Learning Objectives:

- 1. Create high dynamic range images using HDRI software.
- 2. Use image-editing applications effectively to enhance background plates
- 3. Apply HDRI files to 3D software applications
- 4. Render CGI files to composite prints suitable for display

The following indicates the **minimum** number of hours per assignment:

	Assignment Title	Homework Hours	Assignment Objectives
Week 1	CGI Research	3	1,2,3,4
Week 2	HDRI Shooting for an IBL	6	1,2
Week 3	HDRI Software	5	1,2
Week 4	360x180 HDRI Pano- rama	8	1,2
Week 5	CGI Materials	6	2,3
Week 6	CGI Textures and Labels	6	2,3
Week 7	Backplates	8	1,2,3
Week 8	Final 3 Treatment	6	1,2,3,4
Week 9	No Assignment		
Week 10	WIP Materi- als/Textures	15	1,2,3,4
Week 11	No Assignment		
Week 12	Final Pre-renders	15	1,2,3,4
Week 13	No Assignment		
Week 14	Final CGI Prints	15	1,2,3,4
Total		93	