

PHPS-202 Applications of Scientific Photography II

Syllabus and calendar Spring 2016

Instructors

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Course Overview

This course is part two of the yearlong exploration of applications of scientific photography. The primary goal of part II is to learn photographic skills used to form and record images of objects that are nearly invisible. This may include the use of spectrums beyond the visible. We will also evaluate ethics, licensing, time management and communication problems.

You will be exposed to numerous imaging problems that will require thoughtful, analytical approaches and patience. There is a great deal of material to cover and you will be challenged to produce consistently effective work under time and other technical constraints. Consider us to be your client and work in a manner that exhibits professionalism and respect. There will be no excuse for poor performance or missed deadlines.

Expectations and Requirements

You are expected to be in class on time and prepared to learn. Emergency situations can arise and we ask that you contact us ahead of time if you cannot attend class or need a deadline extension.

The way in which you deliver and present your work will speak a great deal about the amount of effort put forth and the pride that you have in that work. Please keep this in mind and handle your submissions accordingly.

Submission Components

Each assignment will have different learning objectives and submission requirements. This will include how to submit such as using RAW or JPEG files, prints, or technical summary write-ups. Each assignment must contain all the requested pieces and parts and submitted as requested. Prints and any other hard-copy elements must be submitted in an appropriately sized red portfolio folder.

Parameters for Work Evaluation

1. Timeliness of Submission. Work not shared at the start of critique or uploaded by the requested time will be considered late.
2. Objectives Met. All submitted work must meet the specified objectives as requested.
3. Craftsmanship. All submitted work must exhibit the highest degree of craft. This will include the photographic lighting, subject management, presentation, print quality, post-processing and other criteria as shared on the assignment sheet.
4. The Wow Factor. Some aspects of photography— even in scientific photography— are subjective. Your work should make a statement and reflect a degree of originality and creativity in addition to the above stated criteria. An assignment is unlikely to receive the highest possible grade if it does not exhibit this quality.

Sharing Submitted Work

Students are encouraged to share their photographic work through the CIAS Student Gallery. Additionally, our Photo Sciences program has an active Facebook group and we find it worthwhile to share student work with classmates, faculty and alumni. This means that we would like to post student images, with credit, to the group as the semester progresses. However, know your rights as a student: The Family Educational Rights Act of 1974 prohibits instructors from making students' course work public without their consent. Therefore if you do not wish to have your work made public in this way, please contact us at any point during the semester.

Grading Policy and Breakdown

Each assignment will be assessed in a timely fashion and returned to the student with feedback. Since this term there will be a part one and part two of the semester, there maybe some differences in the parts. There will be a midterm exam and a final exam.

RIT uses a letter grading system that includes + and – with the exception of D and F grades. Your grade for the semester will be calculated from **part one and part two of the course**. Your assignment scores will be the graded components listed in the following paragraph and using the commonly used designations of +/-:

A	A-	B+	B	B-	C+	C	C-	D	F
100- 93%	92- 90%	89- 87%	86- 83%	82- 80%	79- 77%	76- 73%	72- 70%	69- 60%	60- 0%

Graded Components and Weights

Part one – Spring 2016

Lecture

Two exams (midterm and final) – 20% of unit grade

Projects – 75% of unit grade

Class attendance and Participation

Lab Assignments

Class Notes Blog Posts

Assn 1

- 1) The Science Image – feature an image, an image maker or a product
- 2) A post discussing what you are learning
- 3) A post sharing a few of the images you have been making

Assignment 2

Kohler practical – Pass / Fail

Assignment 3

Basics of Brightfield Photomicrography

Assignment 4

Demonstrated improvements in Photomicrography

Assignment 5

Contrast Producing Techniques

Assignment 6

Final Imaging Poster & Presentation

Resubmissions

You have the option to resubmit up assignments during the semester. An assignment can be redone for a higher grade assuming it was turned in on time with all requested components, otherwise it will not be considered. A resubmission must be completed within two weeks of the original submission date. This will force you to be a critical judge of your own work and pay careful attention to feedback offered in critique, as the original submission might take up to two weeks to be graded.

Late Work

Work submitted any time after the deadline (including coming five minutes late to critique) will be automatically docked half a letter grade and cannot be resubmitted. Work submitted one week late will be automatically docked one full letter grade and cannot be resubmitted. Work submitted two weeks late will lose two letter grades and cannot be resubmitted.

Assigned Reading

All provided readings for this course are designed to correlate with lecture topics, class discussions and shooting assignments. It is expected that you will read the assigned pieces in advance of the lecture meeting times. It is suggested that you take notes to summarize and organize information. Content from all assigned reading will be on exams even if specific points are not mentioned in lecture.

Week 4

Feb 15	Lecture: Contrast Producing Techniques Darkfield & Phase
Feb 17	Lecture: Midterm
Lab	Work review Assn three Assn Four: Making Photomicrographs – part two

Week 5

Feb 22	Lecture: Contrast Producing Techniques Polarized light and DIC
Feb 24	Contrast Producing Techniques - Fluorescence
Lab	Assn five: Contrast Producing Image Lab

Week 6

Feb 29	Lecture: Analyzing a Task and Communicating Technical Concepts
March 2	Lecture: Selecting a Winner
Lab	Work review Assn four Assn six: Final Project Imaging

Week 7

March 8	Lecture: Modern Microscopical Techniques
March 10	Final Exam
Lab	Final Project Imaging

Week 8

March 15	Final Project sharing
March 17	Unit Two – Bob Rose