



**ROCHESTER INSTITUTE OF TECHNOLOGY
COURSE OUTLINE FORM**

COLLEGE OF SCIENCE

Chester F. Carlson Center for Imaging Science

NEW COURSE: COS-IMGS-740 –Imaging Science MS Systems Project Paper

1.0 Course Designations and Approvals

Required course approvals:	Approval request date:	Approval granted date:
Academic Unit Curriculum Committee	1/24/13	2/12/13
College Curriculum Committee		

Optional designations:	Is designation desired?	*Approval request date:	**Approval granted date:
General Education:	No		
Writing Intensive:	No		
Honors	No		

2.0 Course information:

Course title:	Imaging Science MS Systems Project Paper
Credit hours:	3
Prerequisite(s):	None
Co-requisite(s):	None
Course proposed by:	Chester F. Carlson Center for Imaging Science
Effective date:	Fall 2013

	Contact hours	Maximum students/section
Classroom		
Lab		
Studio		
Other (specify)	Variable	

2.a Course Conversion Designation* (Please check which applies to this course).**

*For more information on Course Conversion Designations please see page four.

	Semester Equivalent (SE) Please indicate which quarter course it is equivalent to: 1051-840
X	Semester Replacement (SR) Please indicate the quarter course(s) this course is replacing: 1051-765, 1051-812, 1051-840
	New

2.b Semester(s) offered (check)

Fall	X	Spring	X	Summer	X	Other
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All courses must be offered at least once every 2 years. If course will be offered on a bi-annual basis, please indicate here:

2.c Student Requirements

Students required to take this course: (by program and year, as appropriate) Imaging Science MS students taking the MS project option
Students who might elect to take the course: None

In the sections that follow, please use sub-numbering as appropriate (eg. 3.1, 3.2, etc.)

3.0 Goals of the course (including rationale for the course, when appropriate):

To perform an independent, graduate-level study of an imaging system as part of the Imaging Science MS Project option, i.e., the MS capstone project paper.

4.0 Course description (as it will appear in the RIT Catalog, including pre- and co-requisites, and quarters offered). Please use the following format:

COS-IMGS-740	Imaging Science MS Project Paper
The analysis and solution of imaging science systems problems for students enrolled in the MS Project capstone paper option. Credit 3 (Fall, Spring, Summer)	

5.0 Possible resources (texts, references, computer packages, etc.)

Peer-review articles that are relevant to the selected topic. Textbooks related to the type of imaging system studied. System engineering texts selected by graduate faculty advisor.

6.0 Topics (outline):

Specific to each MS systems project; to be determined by graduate faculty advisor.
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7.0 Intended course learning outcomes and associated assessment methods of those outcomes (please include as many Course Learning Outcomes as appropriate, one outcome and assessment method per row).

Course Learning Outcome	Project paper/report
To demonstrate graduate-level knowledge relevant to a specific area of imaging science	X

8.0 Program outcomes and/or goals supported by this course

8.1 To develop the capacity for critical thinking, problem solving, and learning.
8.2 To develop graduate-level understanding of imaging science and its applications.

9.0

	General Education Learning Outcome Supported by the Course, if appropriate	Assessment Method
<i>Communication</i>		
	Express themselves effectively in common college-level written forms using standard American English	
	Revise and improve written and visual content	
	Express themselves effectively in presentations, either in spoken standard American English or sign language (American Sign Language or English-based Signing)	
	Comprehend information accessed through reading and discussion	
<i>Intellectual Inquiry</i>		
	Review, assess, and draw conclusions about hypotheses and theories	
	Analyze arguments, in relation to their premises, assumptions, contexts, and conclusions	
	Construct logical and reasonable arguments that include anticipation of counterarguments	
	Use relevant evidence gathered through accepted scholarly methods and properly acknowledge sources of information	
<i>Ethical, Social and Global Awareness</i>		
	Analyze similarities and differences in human experiences and consequent perspectives	
	Examine connections among the world's populations	
	Identify contemporary ethical questions and relevant stakeholder positions	
<i>Scientific, Mathematical and Technological Literacy</i>		
	Explain basic principles and concepts of one of the natural sciences	
	Apply methods of scientific inquiry and problem solving to contemporary issues	
	Comprehend and evaluate mathematical and statistical information	
	Perform college-level mathematical operations on quantitative data	
	Describe the potential and the limitations of technology	
	Use appropriate technology to achieve desired outcomes	
<i>Creativity, Innovation and Artistic Literacy</i>		
	Demonstrate creative/innovative approaches to course-based assignments or projects	
	Interpret and evaluate artistic expression considering the cultural context in which it was created	

10.0 Other relevant information (such as special classroom, studio, or lab needs, special scheduling, media requirements, etc.)

None
