

GRADUATE HANDBOOK

2023-2024 ACADEMIC YEAR

DEPARTMENT OF MECHANICAL ENGINEERING

76 LOMB MEMORIAL DRIVE
KATE GLEASON COLLEGE OF ENGINEERING
ROCHESTER INSTITUTE OF TECHNOLOGY
ROCHESTER NY 14623-5604

VOICE: (585) 475-5181
EMAIL: MEGRAD@RIT.EDU

UPDATED: SRI, 9/2023

RIT does not discriminate.

**Scan the code to review the full
RIT Nondiscrimination Statement.**



TABLE OF CONTENTS

Table of Contents	2
Foreword	3
Department Profile	3
Mechanical Engineering Graduate Program	4
General Program Requirements	5
Master of Engineering in Mechanical Engineering	6
Master of Science in Mechanical Engineering	7
Graduate Cooperative Education	9
Graduate Program Policies	10
Graduate Student Financial Support	11
Important Mechanical Engineering Contacts	12
Appendix A: Example Plans	13
Appendix B.1: Project with Paper	14
Appendix B.2: Graduate Internship	15
Appendix B.3: Graduate Independent Study	16

FOREWORD

Welcome to RIT! We are confident you will find our mechanical engineering graduate educational programs are innovative, distinct, and nationally recognized for their excellence by both industry and academia. Our unique program is based on RIT's core belief in offering world-class hands-on engineering education, which allows students to customize their degree to their individual preferences and areas of study within Mechanical Engineering. The intent of this document is to summarize the degree programs and requirements. Our faculty and staff strive to provide the very best education to our students at all levels so please feel free to visit us in the Mechanical Engineering Office during normal business hours, Monday to Friday, 8:30am - 4:30pm, or by appointment. Again, welcome to RIT and enjoy your educational journey!

DEPARTMENT PROFILE

The Kate Gleason College of Engineering (KGCOE), one of the nine RIT colleges, is the nation's premier career-oriented college of engineering. The KGCOE student body consists of almost 3,000 undergraduate and over 600 graduate students. RIT's cooperative education program is the 4th oldest and 5th largest in the world, with over 2000 co-op placements for engineering students at 500 different companies each year. KGCOE faculty are active in many research areas falling under five broad focus areas: Transportation, Energy, Communications, Healthcare, and Nanoscience and Microsystems Engineering. Research takes place across engineering disciplines and often involves other colleges at RIT, local health care institutions, and major industry partners.

The Mechanical Engineering (ME) Department is the largest academic department in the Kate Gleason College of Engineering, with a headcount of over 900 students in first year through graduate programs. ME offers Bachelor of Science degrees in Mechanical Engineering, and undergraduate options in Automotive Engineering, Aerospace Engineering, Energy and the Environment, and Bioengineering. At the graduate level, ME offers Engineering and Microsystems PhD degrees, Master of Science and Master of Engineering degrees, and an Advanced Certificate in Vibrations Engineering. The ME Department consists of several award-winning faculty members as well as cutting-edge facilities to conduct leading research in aerodynamics, medical devices, energy systems, system control, robotics, new product development, materials development, structural integrity, manufacturing, automotive systems, and space vehicle systems.

<https://www.rit.edu/engineering/mechanical-engineering>

MECHANICAL ENGINEERING GRADUATE PROGRAM

The Department of Mechanical Engineering at the Rochester Institute of Technology offers world-class hands-on engineering education through two Master's degree options (Figure 1): a project-based Master of Engineering (ME) option and a thesis-based Master of Science (MS) option. Both options are 30-semester-credit-hour programs with specific degree requirements.

Master of Engineering (ME) - The Master of Engineering in Mechanical Engineering is a 30-semester-credit-hour professional degree program. This degree is particularly well-suited for students who do not wish to do a research-oriented thesis, those interested in updating their technical skills, and those students who wish to study part-time. A conventional thesis is not required for the Master of Engineering degree program and is replaced by a choice of capstone experiences. Courses taken within the Master of Engineering program are transferable to the Master of Science program in Mechanical Engineering. Students may complete the program degree requirements within one calendar year with summer study. Students may also augment their education through optional graduate co-op employment opportunities while completing their studies at RIT.

Master of Science (MS) - The Master of Science in Mechanical Engineering is a 30-semester-credit-hour thesis degree program. This degree is particularly well-suited for students interested in research and those considering a PhD. Students work closely with a faculty advisor to develop, conduct and disseminate their thesis. Students complete required and complementary coursework as they conduct research toward the completion of their thesis. With approval, students may also augment their education through optional graduate co-op employment opportunities with our vast number of industry partners while completing their studies at RIT.

	Masters of Engineering (ME)	Masters of Science (MS)
Program	<u>30 Credits Total</u>	<u>30 Credits Total</u>
	6 math	6 math
	21 electives	21 electives
	3 capstone	3 capstone
	0 graduate seminar	0 graduate seminar

Figure 1: Comparison of the ME and MS programs

GENERAL PROGRAM REQUIREMENTS

Graduate students must fulfill degree requirements in **Math, Focus Area, Electives, Seminar, and Capstone** (ME) or **Thesis** (MS), for a total of 30 credits. Information presented in this document is superseded by information presented in the Graduate Bulletin, which contains all official requirements for degree completion. In the event of a disagreement between this summary and the Graduate Bulletin (published on the RIT website), the Graduate Bulletin takes precedence.

- MATH** Complete the two courses below (6 credits):
- MECE-707 Engineering Analysis
 - MECE-709 Advanced Engineering Mathematics
- FOCUS AREA** Choose courses from one below or create a custom one (9 credits, Figure 2).
- ELECTIVES** Choose 600+ level degree-related courses (ME, 12 credits | MS, 9 credits).
- SEMINAR** Successfully complete three (3) terms of MECE-795 Graduate Seminar (0 credits). Part-time students or students on co-op/internship are not required to attend.
- CAPSTONE / THESIS** Successfully complete a Capstone (ME, 3 credits) or Thesis (MS, 6 credits).

Transfer Credits: A **maximum of 6 credit hours** from U.S institutional graduate programs may be accepted as transfer credits upon review and approval by the Graduate Director. Only credits from courses relevant to the program will be considered.

Credits Outside the Department: A minimum of 21 credit hours of graduate-level course work must be taken in the Department of Mechanical Engineering to meet degree requirements; A **maximum of 9 credit hours** of focus area and/or elective courses can be taken outside the Department of Mechanical Engineering.

<p>Automotive Systems</p> <p>Choose three of the following:</p> <p>ISEE-740 Design for Manufacture and Assembly MECE-623 Powertrain Systems and Design MECE-624 Vehicle Dynamics MECE-643 Classical Controls MECE-650 Sustainable Energy Use in Transportation MECE-658 Introduction to Engineering Vibrations MECE-670 Manufacturing Processes and Engineering MECE-689 Grad. Lower Level Special Topic #4: Computational Gear Design MECE-739 Alternative Fuels and Energy Efficiency MECE-752 Tribology Fundamentals MECE-756 Boiling and Condensation</p>	<p>Mechanics-Design/Materials</p> <p>Choose three of the following:</p> <p>MECE-605 Finite Elements MECE-620 Introduction to Optimal Design MECE-623 Powertrain Systems and Design MECE-644 Introduction to Composite Materials MECE-657 Applied Biomaterials MECE-752 Tribology Fundamentals MECE-785 Mechanics of Solids</p>
<p>Sustainability</p> <p>Choose three of the following:</p> <p>ISEE-785 Fundamentals of Sustainable Engineering ISEE-786 Lifecycle Assessment ISEE-787 Design for the Environment MECE-629 Renewable Energy Systems MECE-650 Sustainable Energy Use in Transportation MECE-739 Alternative Fuels and Energy Efficiency</p>	<p>Vibrations engineering</p> <p>MECE-658 Introduction to Engineering Vibrations MECE-758 Intermediate Engineering Vibrations</p> <p>Choose one of the following:</p> <p>EEEE-602 Random Signals and Noise EEEE-678 Digital Signal Processing MECE-606 System Modeling</p>
<p>Thermo/Fluids engineering</p> <p>Choose three of the following:</p> <p>MCSE-610 Applied Biofluid Mechanics and Microcirculation MECE-725 Fundamentals of Computational Fluid Dynamics MECE-731 Computational Fluid Dynamics MECE-738 Ideal Flows MECE-751 Convective Phenomena MECE-755 Microfluidics MECE-756 Boiling and Condensation</p>	<p>Business</p> <p>ACCT-603 Accounting for Decision Makers MGMT-740 Leading Teams in Organizations</p> <p>Choose one of the following:</p> <p>ACCT-706 Cost Management HRDE-742 Leading Change INTB-730 Cross-Cultural Management MGMT-735 Management of Innovation</p>
<p>Controls</p> <p>MECE-643 Classical Controls</p> <p>Choose two of the following:</p> <p>EEEE-661 Modern Control Theory EEEE-733 Robust Control EEEE-765 Optimal Control MECE-606 Systems Modeling MECE-743 Digital Controls MECE-744 Nonlinear Controls</p>	<p>Product development</p> <p>Choose three of the following:</p> <p>PROF-710 Project Management* DECS-744 Project Management* ISEE-750 Systems and Project Management* ISEE-741 3D Printing ISEE-751 Decision and Risk Benefit Analysis ISEE-771 Engineering of Systems I ISEE-772 Engineering of Systems II</p>

<p>Manufacturing</p> <p>Choose three of the following</p> <p>ISEE-626 Contemporary Production Systems ISEE-682 Lean Six Sigma Fundamentals ISEE-720 Production Control ISEE-740 Design for Manufacture and Assembly ISEE-741 3D Printing ISEE-745 Manufacturing Systems MECE-643 Classical Controls MECE-670 Manufacturing Processes and Engineering MECE-689 Grad. Lower Level Special Topic #4: Computational Gear Design</p>	
<p>*not all courses are offered every semester; addition courses related to focus areas are available</p>	

Figure 2: Focus Areas & Related Courses

MASTER OF ENGINEERING IN MECHANICAL ENGINEERING

The Master of Engineering degree program consists of five elements of study:

- (i) two required math courses 6 credits
- (ii) three focus area courses 9 credits
- (iii) four graduate electives 12 credits
- (iv) three seminar courses 0 credits
- (v) one capstone requirement 3 credits

A minimum of 30 semester-credit hours are required; at least 21 credit hours of graduate-level course work must be taken within the department. Example program plans are provided in Appendix A.

CAPSTONE REQUIREMENT

All graduate students in the ME Program are required to complete one of the following capstone requirements:

- MECE-730 Design Project Leadership (reserved only for B.S./M.Eng. Students)
- MECE-792 Project with Paper (option for all M.Eng. and B.S./M.Eng. Students)
- MECE-777 Graduate Internship (option for all M.Eng. and B.S./M.Eng. Students)

Design Project Leadership: The student must demonstrate an acquired competence to lead a design project, including the development of a project scope, timeline and budget. Students completing the BS and ME degrees concurrently are expected to enroll in Design Project Leadership and take a leadership role on their senior design team. A final grade will be issued by the instructor.

Project with Paper (Requires Department Approval): The student must demonstrate an acquired competence within an appropriate mechanical engineering topic in conference with a faculty advisor. The work may involve an independent research and/or a design project and/or literature search with a demonstration of acquired skill. To elect this option, complete the Project with Paper Proposal Form (Appendix B.1) and return the signed copy along with a separate, 1-page description of the project to the Mechanical Engineering graduate program staff. Upon Department approval, the Department will

register the student for the 3-credit course for the specified term. Final project evaluations are required by the student and faculty advisor. A final grade will be issued by the Department based on these evaluations. Department approval is required prior to beginning the project and credit cannot be earned for work previously completed (e.g., from a previous class or independent study).

Graduate Internship (Requires Department Approval): The student must demonstrate an acquired competence in an engineering work experience in conference with the industry supervisor. The project/tasks should culminate a student's academic career (e.g., for full-time students with no work experience) or require a significant increase in a student's level of professional responsibility over current assignment roles (e.g., for part-time students working in industry). To be eligible for this option, the student must have earned at least 18 degree credits and maintain at least a 3.0 or higher graduate CGPA. To elect this option, complete the Graduate Internship Proposal Form (Appendix B.2) and return the signed copy along with a separate, 1-page description of the internship to the Mechanical Engineering graduate program staff. Upon Department approval, the Department will register the student for the 3-credit course for the specified term. Final project evaluations are required by the student and faculty advisor. A final grade will be issued by the Department based on these evaluations. Department approval is required prior to beginning the internship and credit cannot be earned for work previously completed (e.g., from a previous co-op experience).

MASTER OF SCIENCE IN MECHANICAL ENGINEERING

The Master of Science degree program consists of five elements of study:

- | | | |
|-------|---------------------------|-----------|
| (i) | two required math courses | 6 credits |
| (ii) | three focus area courses | 9 credits |
| (iii) | three graduate electives | 9 credits |
| (iv) | three seminar courses | 0 credits |
| (v) | a thesis | 6 credits |

A minimum of 30 semester-credit hours are required; at least 21 credit hours of graduate-level course work must be taken within the department. Example program plans are provided in Appendix A.

Students enrolled in the ME Program may apply to change to the MS degree program by: (a) demonstrating excellence in at least 12 or more credits of ME Program course work, and (b) upon successful approval of a thesis proposal with the endorsement of a faculty thesis advisor. Students interested in the MS Program should meet with the Graduate Director prior to application.

MASTERS THESIS

Getting Started – Students interested in the MS Program must first identify a faculty advisor and identify a thesis topic.

Independent Study - Working with the advisor, the student will develop a thesis proposal consisting of research motivation, literature review, preliminary work and plan of thesis work (a Thesis Proposal template MSWord file is available through the Mechanical Engineering Graduate Office). Typically, a student will do an Independent Study (Appendix B.3) to develop the thesis proposal. In parallel, the advisor and student form a thesis committee, including a representative from the Mechanical Engineering Department, which will serve to evaluate the thesis proposal and thesis defense. The candidate must send an advisor-approved FINAL PROPOSAL DRAFT to their committee at least 1 week prior to the defense. When ready, the student will present and successfully defend the proposal to the committee. Upon successfully defending the thesis proposal, the student will sign a change of

program form, moving them from the ME to MS Program. Thesis proposals should be completed and approved at least one week prior to the start of the term for which thesis credit is to be registered.

The thesis committee will arrive at a consensus of one of the following outcomes of your proposal and the candidate will be notified immediately after their proposal:

Accept - The student is permitted to progress with the work and is to be admitted to the MS program. The student may be asked by the committee to make minor revisions to the proposal. Revisions are to be made by the student and reviewed/accepted by the major advisor within two weeks from the date of the proposal. Electronic versions of the final proposal document and slides are to be sent to the Graduate Program Staff.

Revise - The committee has determined that the proposal requires major revisions before the student can progress with the work and be admitted to the MS program. The committee may require the student to resubmit a revised proposal for their review and/or present in a subsequent proposal presentation revision topics identified during the initial defense.

Fail -. The committee has determined that the proposal is unacceptable and the student should not be admitted to the MS program. If the student wishes to continue, they must prepare a new proposal, possibly with a new advisor. If not, the student can remain in the M.Eng. program and work toward fulfilling the M.Eng. degree requirements.

Thesis Work and Credits – MS students are expected to be self-motivated, self-direct their thesis work and determine their own schedule. Students should expect to spend at least two semesters doing thesis work after successfully defending their thesis proposal. Only students with a fully approved thesis proposal are allowed to register for thesis credits (6 credits in total).

Thesis Defense – MS candidates must publicly defend their thesis. To this end, the candidate must arrange a two-hour time to defend their thesis in front of their thesis advisor, thesis committee members, a representative from the Mechanical Engineering Department, and anyone else who wishes to witness the defense. The candidate must send an advisor-approved FINAL THESIS DRAFT to their committee at least 2 weeks prior to the defense. The candidate prepares a formal presentation and a one-paragraph abstract to be used to announce their defense. The candidate will defend their thesis in public. After the general audience is invited to ask questions, they will be excused and only the committee members and departmental faculty will remain for further questioning. Thesis presentations may be closed to the public if the topic is proprietary.

The thesis committee will arrive at a consensus of one of the following outcomes of your defense and the candidate will be notified immediately after their defense:

Conditional Pass - The defense has been deemed a success. Minor corrections and/or revisions may be required. These revisions will be communicated to the candidate by their thesis advisor. The candidate must complete the revisions to their advisor's satisfaction within 10 working days.

Adjournment - While the defense was productive, the committee has determined that significant revisions are required. The nature of these revisions will be communicated to the candidate in

writing by their thesis advisor. The candidate must complete the revisions to their advisor's satisfaction. The thesis committee will reconvene to evaluate the revisions and decide if they are acceptable. At least one academic semester term must elapse between the adjournment and reconvening the committee.

Failure - The committee has deemed the defense to be unsuccessful. No thesis credits completed to date will be usable towards a degree. If the candidate wishes to complete a thesis, they must begin again with a new proposal. The candidate may apply for change of program to the master of engineering degree.

Finishing Up – MS students must have their thesis published electronically via ProQuest and provide confirmation to the Mechanical Engineering Department in order to graduate with an MS degree. To do so, submit through the RIT Wallace Library a PDF version of the approved FINAL THESIS (excluding handwritten signatures) and a PDF of the signature page to ProQuest. Bound personal copies of the thesis can be purchased through the Wallace Library. Forward the ProQuest confirmation email to the Graduate Program Coordinator as proof of completion. YOUR CERTIFICATION (I.E. GRADUATION) CANNOT BE COMPLETED WITHOUT THIS RECEIPT. For detailed thesis completion instructions, refer to <https://infoguides.rit.edu/thesis-services>.

GRADUATE COOPERATIVE EDUCATION

Cooperative education, or co-op, gives students the opportunity to gain meaningful work experience before graduation. Co-op helps students further define their career path and fully realize the value of what is being learned in the classroom. Co-op is the keystone to RIT's experiential education and is optional for graduate students (dual degree students will need to fulfill their undergraduate co-op requirements). Graduate co-op is primarily intended for full-time students in the ME program; students in the MS program may participate in graduate co-op but only upon prior approval of their thesis advisor and Graduate Director. All co-op job offers must be reviewed and approved by the Graduate Director before being accepted by the student.

Eligibility – Graduate students must have completed at least 18 credits of full-time graduate study, maintain at least a 3.0 CGPA, and the work experience must be in your field of study as part of your established curriculum. International students may be eligible to work in the United States, subject to their visa and Graduate Director approval, under Curricular Practical Training (CPT) for up to 364 days.

For more information, contact:

RIT Co-op and Career Services: <https://www.rit.edu/emcs/oce/>

RIT International Student Services: <https://www.rit.edu/studentaffairs/iss/>

GRADUATE PROGRAM POLICIES

KGCOE graduate program policies, including academic honest, grading, adding/dropping courses among others, can be found in the KGCOE Graduate Student Handbook (found on the Mechanical Engineering Website under Student Resources). Listed below are additional policies not found in the KGCOE Graduate Student Handbook:

Leave of Absence/Institute Withdrawal – A full-time student may withdraw from all courses in a semester term by taking a Leave of Absence or withdrawing from RIT (Institute Withdrawal).

A ***Leave of Absence*** should be filed by students who are withdrawing from all classes in a semester term, but who intend to return to study at RIT within three semesters. This will commonly be done for students deploying for military service, facing illness or needing personal leave.

An ***Institute Withdrawal*** should be filed by students who are withdrawing from all classes in a semester term, and do not intend to return to RIT. Students must apply for readmission if they wish to return to RIT.

Generally, we recommend that students file a Leave of Absence rather than an Institute Withdrawal so that they can return to RIT more easily if they need to. A leave of absence cannot extend beyond three consecutive semesters (including summer semester term) of the semester in which the student was most recently registered. If a longer period is needed, the student should withdraw from the Institute and re-apply through the Admissions Office when appropriate.

Application for Graduation – Students will receive an email from Office of the Registrar to submit an Application for Graduation approximately 2 terms prior to your expected graduation. The Application for Graduation is located in your SIS account in the dropdown menu under other academic. All students are required to complete an Application for Graduation to be certified for their degree.

GRADUATE STUDENT FINANCIAL SUPPORT

Merit Scholarship – The Merit Scholarship recognizes first-year graduate students with outstanding academic records, credentials and accomplishments. The scholarship is awarded as a tuition discount for the student’s first year of study. After the first year, Merit Scholarships in the form of tuition remission will be given based on program GPA to those students whom have completed a minimum of 21 credits toward their MECE graduate degree and are in good academic standing (Figure 3):

Tier 1	$3.00 \leq \text{Program GPA} < 3.33$	10% Merit Scholarship
Tier 2	$3.33 \leq \text{Program GPA} < 3.67$	20% Merit Scholarship
Tier 3	$3.67 \leq \text{Program GPA} \leq 4.00$	30% Merit Scholarship

Figure 3: Graduate Merit Scholarship

Eligible students will be awarded scholarships for the next academic year based on program GPA and informed by the MECE graduate office. The awarded scholarship will be applied for the next academic year and only for that year. In the event a student receives scholarship from other sources, eg. Support from faculty for research, the largest percent scholarship will supersede the others (merit scholarship cannot add onto other scholarship).

Teaching Assistantship – Graduate teaching assistantships (GTA) are paid to students by the department to assist faculty instruction. The department will announce openings typically twice per year and accepts applications from interested undergraduate and graduate students. Positions are available to graduate students in good academic standing after their first year at RIT.

Research Assistantship – Graduate research assistantships (GRA) are typically paid by a specific professor from externally sponsored programs and contracts. A GRA is not considered employment, but rather financial support of a student's research. The GRA is not intended to compensate a student for all hours spent working on their thesis research, but is intended to partially defray the student's cost of attendance, in order to allow them to focus more time and effort on their research. Graduate students must maintain a GPA over 3.0 in order to qualify for a GRA. GRAs require the graduate student to work on their research at a rate of **at least** 20 hours per week including all weeks that classes are in session, finals week, and the break week between academic terms. Dual degree students should note that tuition remission may replace (not add to) certain scholarships you may already be receiving. Dual degree students must have earned 129 credits to qualify for a GRA. GRA appointments are for one academic term at a time and require a positive work evaluation by the supervising faculty member and continued good academic standing. The supervising faculty member selects GRA appointees. Students on a 20 hour per week GRA are not eligible for other employment or GTA support, on-campus or off-campus. Students on a GRA must be full-time students.

IMPORTANT MECHANICAL ENGINEERING CONTACTS

The staff and faculty in the Department of Mechanical Engineering is here to help graduate students succeed!

Graduate Director, Dr. Sarilyn Ivancic – The Graduate Director serves as the faculty advisor for all new graduate students (the undergraduate faculty advisor remains the faculty advisor for dual degree students). The Graduate Director is a student's first point of contact for anything related to the mechanical engineering field and can assist with course selection, issues with course work, co-ops, course content and/or career choices.

Graduate Program Coordinator, Ms. Katarina Wayman – The Graduate Program Coordinator assists students with course scheduling, academic performance issues, transfer credit and/or life at RIT. The Graduate Program Coordinator is the student's first point of contact for anything related to registration and degree completion requirements. Staff advisors are well aware of the various resources available around the campus and can help students connect with study centers and assistance resources of both an academic and personal nature.

MECHANICAL ENGINEERING STAFF

Dr. Risa Robinson, Department Head
ME Office: GLE 2103, rjeme@rit.edu, x55181

Dr. Bob Carter, Associate Department Head
ME Office: GLE 2106, ahneme@rit.edu, x557098

Dr. Sarilyn Ivancic, Graduate Director,
ME Office: GLE 2113, srieme@rit.edu, x56003

Dr. Marca Lam, Undergraduate Program Director
ME Office: GLE 2111, mjleme@rit.edu, x56871

Katarina Wayman, Senior Staff Specialist
ME Office: GLE 2123, krweme@rit.edu, x55788

Jan Maneti, Mechanical Engineering Department Operations Manager
Machine Shop: GLE 2361, jameme@rit.edu, x57718

Sarah Buell, Senior Staff Assistant
GLE 2125 sebeme@rit.edu,

APPENDIX A: EXAMPLE PLANS

Master of Engineering Program – Example #1

Year	Fall Term	Spring Term	Summer Term
1	MECE-707 Engr Analysis MECE-XXX Focus/Elective MECE-XXX Focus/Elective	MECE-709 Adv Engr Math MECE-XXX Focus/Elective MECE-XXX Focus/Elective MECE-XXX Focus/Elective	Graduate Co-op
2	<i>Project with Paper Option</i>		Begin Career!
	Graduate Co-op	MECE-XXX Focus/Elective MECE-XXX Focus/Elective MECE-792 Project w/ Paper	
	<i>Graduate Internship Option</i>		
	MECE-777 Grad Internship	MECE-XXX Focus/Elective MECE-XXX Focus/Elective	

Master of Engineering Program – Example #2

Year	Fall Term	Spring Term	Summer Term
1	MECE-707 Engr Analysis MECE-XXX Focus/Elective MECE-XXX Focus/Elective MECE-XXX Focus/Elective	MECE-709 Adv Engr Math MECE-XXX Focus/Elective MECE-XXX Focus/Elective	Graduate Co-op
2	MECE-XXX Focus/Elective MECE-XXX Focus/Elective MECE-792 Project w/ Paper	Graduate Co-op	Begin Career!

Master of Science Program*

Year	Fall Term	Spring Term	Summer Term
1	MECE-707 Engr Analysis MECE-XXX Focus/Elective MECE-XXX Focus/Elective MECE-XXX Focus/Elective	MECE-709 Adv Engr Math MECE-XXX Focus/Elective MECE-799 Independent Study leading to proposal	Research
2	MECE-790 Thesis MECE-XXX Focus/Elective	MECE-790 Thesis Defend thesis	Begin Career!

*

Master of Science Program may be complete within 2 years however, it is typical for students to require additional time to complete and defend their thesis

APPENDIX B.1: PROJECT WITH PAPER

Project with Paper Proposal MECE-792

Student: UID #:

Project Title:

Project Semester:

Faculty Sponsor:

Reason for Project w/ Paper:

Describe specific objectives/activities to be performed, highlighting culminating experiences.

Outline the method of evaluation, highlighting grade percentages for general activities.

Signature acknowledges activity is to be completed in one academic term with no extension, and that incomplete "I" grade petitions for unusual circumstances must receive department approval.

Approved by Graduate Student: Date:

Approved by Faculty Sponsor: Date:

Approved by Graduate Director: Date:

Note: This form MUST be approved before the student can register for the course. After approval, the student and the advisor will be notified, and the original is scanned and filed in the student's department folder. The student agrees that an Incomplete "I" grade can only be granted in unusual circumstances beyond the student's control, such as an illness, a grade of Incomplete may be assigned. In order to qualify for an Incomplete grade, the student will need to demonstrate that a situation that arose was unexpected and beyond the control of the student. Projects and courses by definition are to be scoped and defined such that they can be completed in one academic term. Simply not finishing work in ANY course is NOT an acceptable reason for granting an "I" grade. Course instructor

permission alone is not sufficient reason to assign an “I” grade. All I grade petitions must be reviewed and approved by the department.

APPENDIX B.2: GRADUATE INTERNSHIP

Graduate Internship Proposal

MECE-777

Student: _____ UID #: _____

Internship Title: _____

Internship Semester: _____

Internship Company Name: _____

Internship Company Supervisor: _____

Company Supervisor Phone / Email: _____

Describe specific responsibilities/duties to be performed, highlighting leadership activities.

Signature acknowledges activity is to be completed in one academic term with no extension, and that incomplete "I" grade petitions for unusual circumstances must receive department approval.

Approved by Graduate Student: _____ Date: _____

Approved by Company Supervisor: _____ Date: _____

Approved by Graduate Director: _____ Date: _____

APPENDIX B.3: GRADUATE INDEPENDENT STUDY



Graduate Independent Study Proposal MECE-799

Student: UID #:

Project Title:

Project Semester:

Faculty Sponsor:

Reason for Independent Study:

Describe specific objectives/activities to be performed.

Outline the method of evaluation, highlighting grade percentages for general activities.

Signature acknowledges activity is to be completed in one academic term with no extension, and that incomplete "I" grade petitions for unusual circumstances must receive department approval.

Approved by Graduate Student: Date:

Approved by Faculty Sponsor: Date:

Approved by Graduate Director: Date:

te: This form MUST be approved before the student can register for the course. After approval, the student and the advisor will be notified, and the original is scanned and filed in the student's department folder.

The student agrees that an Incomplete "I" grade can only be granted in unusual circumstances beyond the student's control, such as an illness, a grade of Incomplete may be assigned. In order to qualify for an Incomplete grade, the student will need to demonstrate that a situation that arose was unexpected and beyond the control of the student. Projects and courses by definition are to be scoped and defined such that they can be completed in one academic term. Simply not finishing work in ANY course is NOT an acceptable reason for granting an "I" grade. Course instructor permission alone is not sufficient reason to assign an "I" grade. All I grade petitions must be reviewed and approved by the department.