

ECSE Master of Science with Thesis Plan of Study Worksheet

1. You must complete and submit the latest version of your POS each semester.
2. POS submitted during your last semester (term in which you will graduate) will be used for your Official Registrar Degree Transcript. You must ensure you have met all course requirements as listed below for graduation.
3. POS Submission deadline: November 1st (Fall Semester) and March 1st (Spring Semester).
4. POS must be submitted for approval to the Graduate Program Secretary Priscilla Magilligan in JEC-6012 or by e-mail: pris@ecse.rpi.edu
5. The ECSE Graduate Program Director will review and sign the POS, if approved. If changes are necessary prior to approval, you will be contacted by e-mail.
6. Follow the instructions below for filling the POS Worksheet. Use the "Sample POS Worksheet" below as a guide for filling your worksheet.
7. If you need any assistance with POS, please meet with Priscilla Magilligan in JEC-6012. You can also reach her by e-mail: pris@ecse.rpi.edu or by phone: 518-276-6225.

Instructions for Filling POS Worksheet:

Step 1: Review the course requirements below for MS with thesis degree.

Step 2: Review course descriptions for courses of interest to you in the RPI Course Catalog at <http://catalog.rpi.edu/>

Step 3: Review the list of courses offered during the last two semesters in Class-Hour Schedules at rpinfo.rpi.edu or at sis.rpi.edu.

Step 4: Review the list of courses offered during the current academic year (current semester and next semester) in Class-Hour Schedules at rpinfo.rpi.edu or at sis.rpi.edu. For any questions regarding course related information, please contact the Instructor (listed in class hour schedules) by e-mail.

Step 5: Fill the POS worksheet with a list of courses of interest to you that are offered during the current semester or will be offered during the next 2 semesters. The future semester course offerings can be guessed based on past academic year course offerings. *While filling the POS, Do not use CRN numbers to designate courses; use, instead, the standard "DEPT-6xyz or DEPT-4xyz" designation, e.g. ECSE-6510.* The electronic copy of the POS Worksheet can be found here: <https://info.rpi.edu/graduate-academics/forms-publications-policies> . If you decide to print and fill a paper copy (hard copy), use only black pen and capital letters as shown in the Sample POS worksheet.

Step 6: Do not leave any information blank, except for signatures, at this point. Don't forget to check in the Official POS whether you have a New or Revised Plan; give the Date of Previous Plan, if revised.

Step 7: Meet with your Academic Advisor for POS review, approval, and signature. If you are a new MS student and do not have an Academic Advisor yet, no signature is needed at this point, but finding an MS Advisor within the first month of your Program is essential!

Step 8: Staple your POS Worksheet under your Official POS and give the material to the Graduate Program Secretary, Priscilla Magilligan, in JEC-6012 (tel: 518-276-6225; email: pris@ecse.rpi.edu). The ECSE Graduate Program Director will look over the material and sign if approved. If there are any problems, you will be contacted (so make sure you include your current phone and email address where asked.)

Course Requirements for ECSE MS Without Thesis:

1. Full-time students, including research assistants (RAs), must register for a minimum of 12 to a maximum of 15 credit hours each semester until completion of the master's degree. **Full-Time Teaching Assistants (TAs) are a special exception:** they may register for a minimum of 9 to a maximum of 15 credit hours, each semester. A FULL-TIME student must complete the degree within 2.5 YEARS; a PART-TIME student must complete it within 3 YEARS. We recommend that, as a Part-Time student, you take 2 courses (six credits minimum) per Academic Semester (Fall and Spring).
2. Total number of credits needed for graduation: 30
3. You may take courses at both 4000 and 6000 levels, and up to 12 credits can be from outside the ECSE department. The last row in the POS worksheet provides the required number of credits for each category. Suggestions for selecting courses in different categories are given below.
4. At least 15 non-thesis credits must be at 6000 level.
5. At least 12 credits must be taken in the ECSE department.
6. 6 or 9 MS thesis credits
7. At least 1 Math elective. Please select 1 of the following courses: **MATH-4100:** *Linear Algebra*; **MATH-4300:** *Intro to Complex Variables: Theory and Applications*; **MATH-4500:** *Methods of Partial Differential Equations of Mathematical Physics*; **MATH-4600:** *Advanced Calculus*; **MATH-4700:** *Foundations of Applied Mathematics*; **MATH-4800:** *Numerical Computing*; **MATH-4820:** *Intro to Numerical Methods for Differential Equations*; or a related advanced 6000-level MATH course. If you choose any course not listed above, you must obtain approval from the Master's Program Director prior to registration (Please inform Ms. Priscilla Magilligan in JEC-6012 for approval.)
8. You may include no more than 6 transfer credits. You must complete the associated Transfer-Credit Approval Form from the Registrar (available for download at <https://info.rpi.edu/graduate-academics/forms-publications-policies> and identify the closest equivalent RPI course at either 4000 or 6000 level. Submit the completed Transfer-Credit Approval Form to JEC-6012 for final approval. Please note: 1000 or 2000 - level courses cannot be transferred.
9. In addition to regular classroom courses, you may take 1 course as **ECSE-6940 - ECSE Readings** or **ECSE-4940 - Independent Study**. For this course, you must identify a technical topic of interest and find a professor with expertise in the subject area. Taking on an Independent Study Student is solely at the instructor's discretion, so you should ask the instructor first if he/she is willing to serve as the advisor for the course. Once you find an advisor, you must complete an [Independent Study Form](#) (available from the Registrar) and have the course instructor sign the form. Include the title of your independent study course in parentheses on your POS and the POS worksheet. No more than 3 credits of Independent Study may be included in the POS.

10. For Mathematics (Math) Elective, please select one of the following courses: **MATH-4100**: *Linear Algebra*; **MATH-4300**: *Intro to Complex Variables: Theory and Applications*; **MATH-4500**: *Methods of Partial Differential Equations of Mathematical Physics*; **MATH-4600**: *Advanced Calculus*; **MATH-4700**: *Foundations of Applied Mathematics*; **MATH-4800**: *Numerical Computing*; **MATH-4820**: *Intro to Numerical Methods for Differential Equations*; or a related advanced 6000-level MATH course. If you choose any course not listed above, you must obtain approval from the Master's Program Director prior to registration (Please inform Ms. Priscilla Magilligan in JEC-6012 for approval).

We urge you to complete a POS as soon as possible—hopefully, within the first several months of your program, and no later than the end of your first academic term. Please revise, as necessary, within the first few weeks of each academic term.

Remember to read **ALL** the relevant material in your Information Packet, and on the RPI websites <https://www.ecse.rpi.edu/>, <https://sis.rpi.edu/> and <https://info.rpi.edu/>. Also, make a copy of everything for your records. The POS can be revised multiple times as your program evolves from term to term, so you are not locked into the first POS you submit. You do need, however, a POS that agrees exactly with your Official Registrar Transcript, most importantly in the term that you graduate.

Sample ECSE MS with Thesis Worksheet:

Printed Name	RIN	Phone Number	Email Address
John Doe	000-00-0001	(518) 555-1212	doej@rpi.edu

Departmental Prefix	Course Number Suffix	Total Credit Hrs	6000-level Course Credits (CANNOT include Thesis)	MS Thesis Credits	ECSE Credits (CANNOT include Thesis)	Transfer Credits	Indep. Study Credits	Math Elective	Year	Term (F/S/U)*
ECSE	4220	3			3	3			—	—
ECSE	4250	3			3				11	F
ECSE	6940	3	3		3		3		11	F
ECSE	6990	3		3	3				11	F
ECSE	6690	3	3						11	F
ECSE	6680	3	3		3				12	S
ECSE	6990	3		3					12	S
MGMT	6140	3	3						12	S
ECSE	6090	3	3		3				12	S
MATH	4800	4						4	12	U
TOTAL (fill in) ⇒		31	15	6	18	3	3	4		
REQUIREMENT ⇒		≥ 30	≥ 15	6 (or 9)	≥ 12	≤ 6	≤ 3	3-4		

*"F" = Fall, "S" – Spring, "U" = Summer

Course Prefix & Suffix	Course Name
ECSE-4220	VLSI Design
ECSE-4250	Integrated Circuit Processes and Design
ECSE-6940	Readings in ECSE ("Topics in Advanced Circuit Design")
ECSE-6990	Master's Thesis
ECSE-6690	VLSI Design Automation
ECSE-6680	Advanced VLSI Design
ECSE-6990	Master's Thesis
MGMT-6140	Information Systems for Management
ECSE-6090	Advanced Power Electronics Laboratory
MATH-4800	Numerical Computing

