

NUCLEAR ENGINEERING PROPOSED PLAN OF STUDY

(Last Name) _____ (First) _____ (Middle) _____ 90 ID Number _____ Date this plan was submitted _____
Check Degree: MENG (30 hrs) MS (30 hrs) PHD (90 hrs) **SEE YOUR ADVISOR, THE GRADUATE CATALOG & THE NUCLEAR ENGINEERING WEBSITE FOR SPECIFIC REQUIREMENTS AND RESTRICTIONS.**

MUST BE TYPED: Please follow all instructions presented in footnotes.

Year taken	Semester taken	Dept, Course Number & Course Title ¹	Total Hours	Final Grade	Transfer Institution ²
RESEARCH³					
		NSEG 5904 (3 hrs min. / 6 hrs max.) Project & Report (MENG)			NA
		NSEG 5994 (6 hrs min. / 9 hrs max.) Research & Thesis (MS)			NA
		NSEG 7994 (30 hrs min./60 hrs max.) Research & Dissert. (PhD)			NA (Do not put "extra hours" on Masters' POS)
Required 5000 level courses⁴					
		List all courses used to meet degree requirements, even if they have not been completed yet.			
Year taken	Semester taken	Dept, Course Number & Course Title ¹	Total Hours	Final Grade	Transfer Institution ²
		NSEG 5124 Nuclear Reactor Analysis	3		
		NSEG 5204 Nuclear Fuel Cycle	3		
		NSEG 5604 Radiation Detection and Shielding	3		
		NSEG 5424 or MSE 5384G (indicate course taken)	3		
5000 & 6000 Math/Stat courses⁴					
		List all courses used to meet degree requirements, even if they have not been completed yet.			
5000 & 6000 level elective courses^{4,5}					
		List all courses used to meet degree requirements, even if they have not been completed yet.			
6000 level courses required for PhD only^{4,5}					
		List all courses used to meet degree requirements, even if they have not been completed yet.			
5000 & 6000 level Breadth courses required for PhD only^{4,5}					
		List all courses used to meet degree requirements, even if they have not been completed yet.			
Supporting courses⁴					
					Supporting courses are not used to meet degree requirements.
Year taken	Semester taken	Dept, Course Number & Course Title ¹	Total Hours	Final Grade	Transfer Institution ²
		GRAD 5014 Academic Integrity & Plagiarism	2		

¹ See the Graduate Catalog to find correct course abbreviations. https://secure.graduateschool.vt.edu/graduate_catalog/courses.htm.

² A final grade of "B" or better MUST be entered for each transfer. An original transcript must be on file with the Graduate School for each transfer course. Course titles & numbers must exactly match the official transcript. Total course transfer hours should be the same or less than Virginia Tech course hours and course descriptions should be submitted with the POS as well. Transfer courses will appear ONLY on the POS. **VT UG/G courses are considered transfer work.**

³ Indicate last Term & year you **estimate** you will complete the research and graduate.

⁴ All courses must be A-F unless only offered P/F. **No audit courses are allowed on the POS.**

⁵ Seminar cannot be used for degree requirements.

(Last Name)

(First)

(Middle)

90 ID Number

Total research semester hours completed/to be completed (NSEG 5904 3 hrs min. / 6 hrs max. for MENG; 6 min. / 9 max. of NSEG 5994 for MS; 30 min. / 60 max. of NSEG 7994 for PhD).	
Total 5000 level and above graduate course hours completed/to be completed. (Excludes research hrs.) (21 min. for MS, 24 min. for MENG, 30 min. for PhD)	
Total approved Nuclear Engineering hours completed/to be completed (12 min. for MS, 15 min. for MENG & 21 min. for PhD)	
Total approved Math/Stat hours (3 min. for MS & MENG, 6 min. for PhD)	
Total Elective Courses. (Excludes research hrs.) (3 min. for MENG, 6 min. MS & 3 min. for PhD)	
Total 6000 level and above graduate course hours completed/to be completed. (Excludes research hrs.) (6 min. for PhD)	
Total Breadth Requirement (Excludes research hrs.) (3 min. for PhD. Must be NSEG 5000 level or higher)	
Total semester hours of coursework transferred	
Total Virginia Tech coursework hours completed/to be completed	
TOTAL hours on POS completed/to be completed (Might not match hours above.) (30 min. for MS & MEng, 90 min. for PhD)	

Out-of-Date Courses Revalidated* <input type="checkbox"/> Yes <input type="checkbox"/> Not Applicable
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***All courses on the Plan of Study more than five years old at the time the POS is submitted must be revalidated. Provide the Course Justification Request form (https://graduateschool.vt.edu/content/dam/graduateschool_vt_edu/GAAPforms/Course_Justification_Request.pdf) with the Plan of Study. The Graduate School restricts the number of Independent (5974) and Special Study (5984) courses that can be used on the POS. NO 4974 courses may be used on the POS. Refer to the GRADUATE CATALOG for further information and restrictions**

For further information on Nuclear Engineering requirements, refer to the GRADUATE CATALOG.

Dates:

1. Expected date of **Final Examination** (MENG, MS, PhD): _____
2. Expected date of **PhD Preliminary Examination**: _____
3. Expected date of **PhD Qualifying Examination** or result: _____

(Last Name) (First) (Middle) 90 ID Number

Signatures: _____ Email address: _____
(Student Signature)

 (Chair Signature) (Co-Chair Signature) (Print Name) VT 90 ID# (Date)
(check appropriate title)

 (Co-Chair Signature) (Member Sig.) (Print Name) VT 90 ID# (Date)
(check appropriate title)

(Member Signature) (Print Name) VT 90 ID# (Date)

(Member Signature) (Print Name) VT 90 ID# (Date)

(Member Signature) (Print Name) VT 90 ID# (Date)

(Member Signature) (Print Name) VT 90 ID# (Date)

The Advisory Committee for an M.S. candidate normally consists of a minimum of three faculty members, at least two of whom must be in the Mechanical Engineering Department. The Advisory Committee for a Ph.D. candidate normally consists of a minimum of four faculty members, not more than three nor, less than two of whom are in the Mechanical Engineering Department. No more than one-third of the committee membership can be non-Virginia Tech/non-tenure track faculty. The Advisor or a co-Advisor must be a faculty member in the Nuclear Engineering Program.

Attach approval form and resume for each non-Virginia Tech/non-tenure track Committee Member: GRADUATE COMMITTEE SERVICE APPROVAL form http://graduateschool.vt.edu/content/dam/graduateschool_vt_edu/graduate-committee-service-approval-form.pdf
Faxed or scanned signatures are acceptable on all forms.

**NUCLEAR ENGINEERING
COURSE TRANSFER APPROVAL FORM**

Student's Name: _____ ID Number: _____

School where courses were taken: _____

*****Attach copy of transcript(s) and at least one of the two: course description or course syllabus for each transfer course.**

Course No.	Transfer Course Name	Semester/ Year Taken	Course Grade*	Equivalent VT ME Course	<i>Dept. Use Only</i>
					Approved (yes / no)

*****A maximum of 50% of graded course work may be transferred from another university. All courses must have a "B" or better and cannot have been used to complete the B.S. degree.**

Committee comments:

Approval Signatures:

Advisor

Associate Department Head for Graduate Studies Signature

Co-Advisor

**MECHANICAL ENGINEERING
FACULTY/GRADUATE STUDENT MENTORING/ADVISING GUIDELINES**

Date Revised: 2019-05-15

The Broad Goals of the Mechanical Engineering Research Program

The overall goal is to expand the research capabilities, scholarship, accomplishments, and recognition of the Virginia Tech mechanical engineering department and its graduate students. To achieve this goal, the professor (advisor and mentor) will write grant proposals, coordinate with industrial and federal research partners, and initiate research that will make tangible contributions to science, the academic and industrial communities, and to society. The graduate student will assist in carrying out this research along with academic responsibilities to satisfy the degree desired. Together they will communicate their research results through peer-reviewed scholarship and outreach activities. In addition to the VT Graduate School's and Virginia Tech's, procedures and policies which govern the academic conduct of all faculty and students the following provide additional informal guidelines for specific responsibilities and commitments expected of graduate students and their advisors in our department. **These are intended to guide each party's standard commitments but may not be inclusive of all situations and conditions that might arise in conducting research. All parties involved in research, advising, and mentoring must resort to utmost ethical behavior and adhere strictly to VT's compliance, conflict of interest, honor codes, and other procedures and regulations as applicable.**

Commitments of Graduate Students

- **I acknowledge that I have the primary responsibility for the successful completion of my degree.** This includes commitment to work in the classroom and the laboratory. I will maintain a high level of professionalism, self-motivation, engagement, scientific curiosity, and ethical standards.
- **I will meet regularly with my research advisor based on his/her availability and will provide updates on the progress and results of my activities and experiments.** This will include new ideas and challenges that I am facing.
- **I will be knowledgeable of the policies, deadlines, and requirements of the graduate program, the graduate school, and Virginia Tech.** I will comply with all institutional policies, including academic program milestones, laboratory practices, and rules related to chemical safety, biosafety, and fieldwork.
- **I will attend and actively participate in all lab group meetings,** as well as relevant seminars as directed by my advisor(s). I will do my part to create a climate of engagement and mutual respect.
- **I will take part in shared laboratory responsibilities** and use laboratory resources carefully and frugally. I will maintain a safe and clean laboratory space and keep up to date Standard Operating Procedures and MSDS catalogs. I will be courteous and respectful to all University staff.
- **I will acknowledge the efforts of collaborators.** This can take the form of either co-authorship, or in the "Acknowledgements" section of an article, as directed by my advisor(s).
- **I will challenge myself to publish my work.** I shall consult with my advisor(s) about any publications and follow my his/her advice on the substance of the work and the venues of publishing. I understand that the current expectation for an MS with thesis option and PhD degree is having a number of peer-reviewed publications in high quality conference proceedings and journals based on my research. The number of publications and venues are advised by the advisor(s). These papers will be my responsibility as the first author with the approval and the inclusion of my advisor. If intellectual property rights arise, I will discuss these with my advisor, but my main focus will be on publications.
- **I will maintain detailed, organized, and accurate laboratory records.** I acknowledge that all my notes, records and tangible research data are the property of my advisor and Virginia Tech. I will regularly backup my computer data to an external hard drive. In addition, I will maintain a laboratory notebook. When I leave the lab, I may make copies of the data and notebook only as permitted by the projects (especially in the case of sponsored research projects), but the original stays with the lab, along with appropriate and accessible documentation.
- **I acknowledge the effort required to complete my degree.** I understand that registering the minimum required credit hours and the actual hours spent on research may not fulfil the substantive outcome

expected of a successful thesis and dissertation and that I will need to dedicate the required effort to complete my work as necessary.

- **I will be mindful of deadlines.** I will provide drafts of presentations and papers several days ahead of the final deadline to allow the needed time for my advisor to provide editing and corrections.
- **I will remain committed to working in my office and lab to the extent possible.** I will normally be available in my office or lab Monday through Friday during normal working hours when not in class or attending GTA duties. Any other arrangements must be agreed upon with the advisor at the beginning of the semester, preferably in writing. As with any job, I will inform my advisor of absences and get prior approval for vacation time.
- **I will be attentive in the classrooms, office, and lab.** I will conduct myself in a professional manner and will not engage in any unprofessional or disruptive behavior which could result in a referral to Student Conduct or other university offices, including being under the influence of alcohol or illegal drugs.

Commitments of Research Advisors

- **I will be committed to mentoring each of my graduate students.** I am committed to the education and training of graduate students as future members of the scholarly community.
- **I will work tirelessly for the good of the lab group;** the success of every member of our group is my top priority.
- **I will be available for regular meetings and informal conversations.** My busy schedule requires that we plan in advance for meetings to discuss your research and any professional or personal concerns you have. My goal is to meet with you regularly (e.g., every two weeks, this may differ from person to person). If this is not possible due to travel or other schedule conflicts, I will communicate with you electronically as applicable. Sometimes group meetings will also be required. I will communicate with all students the decisions to meet individually or in a group and the frequency of our meetings.
- **I will help you navigate your graduate program of study.** Although you are responsible for meeting deadlines and requirements for your specific program, I am available to guide you. Please see me or email me before registering for courses each semester so I can provide my feedback.
- **I will be committed to your research project.** I will help you design an independent project within the scope of the lab's research for your thesis/dissertation. I will be intellectually committed to your research and will guide your work. I will help you set reasonable goals.
- **I will discuss data ownership and authorship policies regarding papers with you.** It is important that we communicate openly and regularly about your writing and publishing. Barring unusual circumstances, it is my policy that students are first-author on all work for which they took the lead on data collection and preparation of the initial draft of the manuscript. I will serve as the contact author, unless we agree otherwise at the time of the paper submission.
- **I will be your advocate.** If you have a problem, come and see me. I will do my best to help you. If you are not satisfied with my help, you should discuss your situation with the ME Associate Department Head for Graduate Studies.
- **I am committed to mentoring you, even after you leave my lab.** I am committed to your education and training while you are in my lab, and to advising and guiding your career development— to the degree you wish—long after you leave. I will provide honest letters of evaluation for you when you request them. Helping you achieve your professional goals is my primary goal as your advisor.
- **I will help you build your professional social networks and encourage you to attend scientific/professional meetings** and will make an effort to help you find such activities. I will expect you to prepare in advance and provide plenty of time for me to critique your talk or poster. Travel fellowships are available through the Graduate School and at the conferences themselves; please leverage these opportunities.
- **I will strive to be supportive, equitable, accessible, encouraging, and respectful.** I will try my best to understand your unique situation, and mentor you accordingly. I am mindful that each student comes from a different background and has different professional goals.

Annual Evaluation

We are required by the Graduate School to complete an annual evaluation of your productivity. Each year we will sit down to discuss progress and goals. At that time, you should remember to tell me if you are unhappy with any aspect of your experience as a graduate student here. Remember that I am your advocate, as well as your advisor. I may be able to help you with any problems you might have with other students, professors, or staff.

Similarly, we should discuss any concerns that you have with respect to my role as your advisor. If you feel that you need more guidance, tell me. If you feel that I am interfering too much with your work, tell me. If you would like to meet with me more often, tell me. At the same time, I will tell you if I am satisfied with your progress, and if I think you are on track to graduate by your target date. It will be my responsibility to explain to you any deficiencies, so that you can take steps to fix them. This will be a good time for us to take care of any issues before they become major problems.

Specific Expectations:

Student

Advisor

By signing my name below, I am certifying that I was given this document and I have read it in its entirety:

Student Name: _____

Advisor Name: _____

Student Signature: _____

Advisor Signature: _____

Date: _____

Date: _____