

# Ice & Ocean Group at the University of Virginia | MS milestones and requirements

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## Checklist of [EVSC MS degree requirements](#)

- ✓ Complete 30 credits, with 24 credits of graded course work and one course in each of the areas of the department.
- ✓ Form committee with 3 department faculty (me as one of the members and one outside of area of specialization)
- ✓ Proposal: Submit written proposal and defend (30 min. presentation + Q&A).
- ✓ No publication requirements are dictated by the department and college, but I expect one publishable manuscript out of your thesis.
- ✓ Write thesis comprising the motivation, methods, results, and interpretations of your MS research
- ✓ Thesis defense (30 min. presentation + Q&A; at least 4 months after proposal defense).

**Coursework.** MS students must pass with a “B” or better one 3- or 4-credit graduate level (5000- or 7000-level) non-seminar course from each of the four areas of the department: Geosciences (EVGE), Hydrology (EVHY), Ecology (EVEC), and Atmospheric Sciences (EVAT). Please note that new 5000-level courses or EVSC 7559 (first-time offerings) may not yet be listed officially under a discipline, but may count; in these cases, please consult with the professor. Otherwise, courses offered as EVSC may be used to fulfill this requirement only with prior approval of the Graduate Academic Review Committee (GARC).

In total, MS students must complete 30 graduate credits including at least 24 credits in graded graduate-level coursework. During each semester, full-time students must be registered for 12 hours of graduate credit; the 12 hours do not have to be in formal courses. Non-Topical Research (EVSC 8999) should be used to augment regular coursework to bring the total to 12 hours. During the first two semesters, graduate students must enroll in a minimum of 9 credits per term of graded coursework on the standard letter scale (A–F).

Not all graduate courses are taught every year; many are taught on a two-year cycle. Hence, it is very important to plan well in advance so that you can be strategic about courses, particularly those outside of your discipline (geoscience). Aim to finish all of the required courses within your first two academic years (four semesters). Finishing within this time frame will help you prepare for your comprehensive exam. Additional advanced topical or skills courses can be taken in subsequent years at the discretion of the student and advisor. You can find a tentative list of upcoming courses on the departmental website (<https://evsc.as.virginia.edu/schedule-upcomingcourses/>), and the university course catalog on SIS (<https://in.virginia.edu/sis/>) and ‘Lou’s List’ (<https://louslist.org/>). The Ice & Ocean Group also has a list of recommended courses available.

**Committee Formation.** The thesis committee serves several roles. First and foremost, the committee exists to ensure that degree-granting standards and guidelines are adhered to, and to protect the university from giving too much power to any individual professor. The committee, therefore, provides a checks and balances service to the university. In more practical terms, the dissertation committee helps guide you (the student) in transitioning from coursework to research; assess your preparedness through the comprehensive exam; and advise and evaluate your proposal and dissertation while providing meaningful feedback. The overarching goal of the committee is to help prepare the student to be an independent and capable MS-level scientist, identify areas in which the student needs additional expertise, strengthen their proposal and dissertation, and steer the student away from problematic research ideas and other pitfalls.

My role as the chair of your committee is: (1) to lead in the evaluation of your professional preparedness and the advising of your dissertation; and (2) to advocate for you in cases where your other dissertation committee members pull you in multiple conflicting directions, thereby avoiding unnecessary delays in your degree progression. So, you should expect me to simultaneously challenge you and support you. You may consult your committee members at any time on various topics related to your dissertation and career, such as research, teaching, and professional development. You should be strategic by assembling a committee that draws upon multiple sources of expertise, which should give you appropriate help when it is needed.

The thesis committee can be formed by the student at any time after entry and prior to the proposal defense. The committee consists of three faculty members: 3 from the department including me and one member of the department outside the student's core area of study, so not a geoscience faculty. General committee members may be chosen from other institutions.

Start thinking about forming your committee during your first semester. Aim to complete this task by your second semester. The signed [committee formation form](#) can be submitted to Administrative Coordinator ShaRhonda Swann. Although I will be the chair of your committee, you should assume responsibility for mediating communication and scheduling among your committee members. Shortly after committee formation, you should schedule a meeting (or individual meetings) with your entire committee to do introductions, discuss your research, formalize a timeline for, at least, the proposal defense.

**Written thesis proposal and oral defense.** As soon as possible after formation of the committee, preliminary discussions should be held between the student and the committee members concerning the proposed research. This leads to a formal written proposal from the student including a literature review, experimental plan, and results (and preliminary interpretations) that is no less than 15 pages but not longer than 25 pages (excluding references), single-spaced and no smaller than 11-point font, with as many informative, clear, and appropriately sized figures as needed. The ~1.5-hour proposal defense will begin with a ~30-minute presentation of the proposal by the student. This will be followed by questions from the audience, questions from the committee, deliberation by the committee, and a closed-door discussion with the student. The results of the proposal defense will be announced immediately following the defense. The results will be pass, conditional pass, or fail. A conditional pass means pass, providing the student demonstrates elimination of inadequacies by means stipulated by the committee. In the event of a failure, the committee may elect to allow a single repetition of the proposal defense. The signed should be delivered to the Administrative Coordinator.

Aim to complete your proposal defense in the third semester (if you are on a 2-year completion timeline) or during the subsequent semester (if you are on a >2-year completion timeline). This decision will be based in part upon your coursework load and teaching obligations, and progress on preliminary research activities.

### **Completion of degree: Submission of thesis and thesis defense**

MS students must apply for their degrees online in SIS by the deadline for the term in which they plan to graduate: Fall - September 30; Spring - January 31; Summer - June 30. Final drafts of your thesis should be circulated to committee members at least two weeks prior to the defense. You must advertise via email your defense date at least one week in advance. The thesis defense must be at least four months after your successful proposal defense. The length and format of the dissertation defense is a brief introduction from me, a 30-minute talk that summarizes your research, open questions from the audience, and closed questions from your committee. The signed [Graduate Student Thesis/Dissertation Defense Decision](#) needs to be delivered to the Administrative Coordinator. Once finalized, your thesis will be uploaded to the UVA Library (Libra). In rare cases, you may need to embargo the online publication of your dissertation until after all chapters have been published in a peer-reviewed journal. You must also complete the steps/forms required by GSAS listed [here](#).

*With the approval of myself, the DGS, and GSAS, modifications to the timelines for proposal defense, and thesis defense can be made.*