



MS (Ocean) Non-Thesis Option Graduate Checklist

Non-Thesis Option: (Excluding AOE 5944)					
Total minimum credits	Total minimum credits of coursework 5000 level or higher			Total maximum credits of coursework at 4000 level	
30 Credits	15 Credits			6 Credits	
Variable Credit Courses:					
Course	Title	Credits	Course	Title	Credits
AOE 5904	Project and Report		AOE 5974	Independent Study	
AOE 5904	Project and Report		AOE 5984	Special Study	
	(6 hours required) TOTAL			(Maximum of 9 hours) TOTAL	
Ocean Engineering Track: 12 credits of required coursework					
Course	Title	Credits			
AOE 4404	Applied Numerical Methods	3			
AOE 5074	Advanced Ship Structural Analysis ¹	3			
AOE 5104	Advanced Aero and Hydrodynamics	3			
AOE 5334	Advanced Ship Dynamics	3			
	TOTAL	12			

Master of Science Track: Transfer courses as approved by Advisory Committee				
University	Course	Title	Credits	Grade

¹ If AOE 4274: Computer-Based Design of Ocean Structures has already been taken, then one of the following two courses must be substituted: AOE 5024: Vehicle Structures or AOE 5374: Rationally-Based Design of Ocean Structures.

Students must take 18 credit hours of approved electives.		
Ocean Engineering Track: Choose at least two of the following approved electives		
Course	Title	Credits
AOE 4024	An Introduction to the Finite Element Method	
AOE 4264	Principles of Naval Engineering	
AOE 5034	Mechanical and Structural Vibrations	
AOE 5084	Submarine Design	
AOE 5144	Boundary Layer Theory and Heat Transfer	
AOE 5304	Advanced Naval Architecture	
AOE 5305	Marine Engineering	
AOE 5314	Naval Ship System Design and Effectiveness ²	
AOE 5374	Rationally-Based Design of Ocean Structures	
AOE 5434G	Advanced Introduction to Computational Fluid Dynamics	
AOE 5444G	Advanced Dynamics of High-Speed Craft	
AOE 5454	Advanced Aerospace and Ocean Engineering Instrumentation	
AOE 6145	Computational Fluid Dynamics	
	(Minimum of 6 hours) TOTAL	
Additional approved courses determined in consultation with the Advisory Committee Chair.		
AOE		3
AOE		3
AOE		3
	(Minimum of 12 hours) TOTAL	
Students must take 6 units of AOE 5904 or complete a 6 unit Capstone Naval Ship Design Project.		
Course	Title	Credits
AOE 5904	Project and Report	6
OR		
AOE 5315-5316	Naval Ship Design ³	6
	(Minimum of 6 hours) TOTAL	

² It is strongly recommended that students who wish to take AOE 5314: Naval Ship System Design and Effectiveness, first take AOE 4264: Principles of Naval Engineering.

³ Students must take both AOE 5315 and AOE 5316 to meet the 6 unit Capstone Naval Ship Design Project or take 6 units of AOE 5904: Project and Report.

- Official transcripts of transfer courses – Confirm that both the Graduate School and AOE Department have transcripts in your student file.
- Submit the [Transfer Course Approval Form](#) with a course description or syllabus for each course being considered for transfer (if applicable).
- Submit the [Graduate Program Faculty and Additional Graduate Advisory Committee Members Form](#) with curriculum vitae of committee member (if applicable).
- Submit the [MS or MENG Plan of Study](#) by the end of the second semester within the program.
- Submit the [Course Justification Request Form](#) and supporting documents if you are listing courses five years old or older on your MS Plan of Study.
- Submit the [Change of Committee/Advisor Form](#) (if applicable).
- Submit the [Request for Plan of Study Changes Form](#) (if applicable).
- [Application for Degree Form](#) – Submit the form on [HokieSpa](#) by the following [dates](#):
 - Fall – October 1st Spring – March 1st Summer I – June 1st Summer II – August 1st
- Schedule the Final Exam with Advisory Committee prior to the following [dates](#):
 - Fall – December 10th Spring – May 6th Summer I – July 2nd Summer II – August 13th
- Submit the [Request to Admit Candidate to the Final Examination Form](#) to the Graduate School at least three weeks prior to the date of the Final Exam.
- Submit the [Start of Semester Defense Exception Request Form](#) with the [Request to Admit Candidate to the Final Examination Form](#) if you plan to defend by the following dates (and not register for coursework that semester):
 - Fall – September 26th Spring – February 20th Summer I & II – May 26th through August 13th

These forms must be submitted to the Graduate School at least **three weeks** prior to the date of the Final Exam.
- The electronic Final Exam Card is submitted to the Graduate School within two days of the Final Exam.
- Confirm completion of all coursework and degree requirements by the following [dates](#):
 - Fall – February 6th Spring – July 3rd Summer I – August 7th Summer II – September 18th
- Pay all student fees on account prior to graduation.

Graduation Requirements and Commencement Deadlines

The specific dates for deadlines listed above should be confirmed based on the graduation requirements and commencement deadlines for the academic term in which you plan to graduate. This information is found on the Graduate School's website at http://graduateschool.vt.edu/academics/commencement_deadlines.

Forms

Graduate School (<http://graduateschool.vt.edu/academics/forms>)
 AOE Department (<http://www.aoe.vt.edu/graduate/forms/html>)

All forms must be submitted to either the Graduate Program Coordinator or the Graduate Program Director for Department Head and Graduate Program approval. The department will submit forms to the Graduate School in order to ensure that departmental requirements have been met and proper records are maintained.