



## MS (Aerospace) Thesis Option Graduate Checklist

<b>Thesis Option: (Excluding AOE 5944)</b>					
Total minimum credits	Total minimum credits of coursework 5000 level or higher			Total maximum credits of coursework 4000 level or higher	
30 Credits	12 Credits			6 Credits	
<b>Research Credits and Variable Credit Courses:</b>					
Course	Title	Credits	Course	Title	Credits
AOE 5994	Research and Thesis		AOE 5974	Independent Study	
AOE 5994	Research and Thesis		AOE 5984	Special Study	
	(6-10 hours required) TOTAL			(Maximum of 6 hours) TOTAL	
<b>Aerospace Engineering Track: 12 credits of required coursework</b>					
Course	Title	Credits			
AOE 4404	Applied Numerical Methods	3			
AOE 5024	Vehicle Structures	3			
AOE 5104	Advanced Aero and Hydrodynamics	3			
AOE 5204	Vehicle Dynamics and Control	3			
		TOTAL			
		12			

Students must take 9 credit hours of approved electives determined in consultation with the Advisory Committee Chair.		
<b>Aero-Hydrodynamics Track:</b> Courses may be selected from the following list.		
Course	Title	Credits
AOE 5114	High Speed Aerodynamics	
AOE 5135	Vehicle Propulsion	
AOE 5144	Boundary Layer Theory and Heat Transfer	
Additional approved courses determined in consultation with the Advisory Committee Chair.		
Course	Title	Credits
AOE		3
AOE		3
		(Minimum of 9 hours) TOTAL

Students must take 9 credit hours of approved electives determined in consultation with the Advisory Committee Chair.		
<b>Dynamics and Control Track:</b> Courses may be selected from the following list.		
Course	Title	Credits
AOE 5234	Orbital Mechanics	
AOE 5774	Nonlinear Systems Theory	
AOE 6744	Linear Control Theory <sup>1</sup>	
Additional approved courses determined in consultation with the Advisory Committee Chair.		
Course	Title	Credits
AOE		3
AOE		3
	(Minimum of 9 hours) TOTAL	

Students must take 9 credit hours of approved electives determined in consultation with the Advisory Committee Chair.		
<b>Structures and Structural Dynamics Track:</b> Courses may be selected from the following list.		
Course	Title	Credits
AOE 5034	Mechanical and Structural Vibrations	
MATH 4574	Vector and Complex Analysis for Engineers	
Additional approved courses determined in consultation with the Advisory Committee Chair.		
Course	Title	Credits
AOE		3
AOE		3
	(Minimum of 9 hours) TOTAL	

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

### Aerospace and Ocean Engineering: Systems Option

The AOE Department, in conjunction with the Systems Engineering Technical Interest Group, offers an interdisciplinary degree in Systems Engineering. The requirements for the degree are essentially the same as those outlined above with the exception of the interdisciplinary aspect of the curriculum, which is prescribed by the Systems Engineering Advisory Board.

<sup>1</sup> It is strongly recommended that students who wish to take AOE 6744: Linear Control Theory, first take AOE 5744: Linear Systems Theory or an equivalent course on linear, time-varying systems.

## 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](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.

- 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 1<sup>st</sup>      Spring – March 1<sup>st</sup>      Summer I – June 1<sup>st</sup>      Summer II – August 1<sup>st</sup>
- Schedule the Final Exam with Advisory Committee prior to the following [dates](#):  
Fall – October 1<sup>st</sup>      Spring – March 1<sup>st</sup>      Summer I – June 1<sup>st</sup>      Summer II – August 1<sup>st</sup>
- Schedule the Final Exam with Advisory Committee prior to the following [dates](#):  
Fall – December 10<sup>th</sup>      Spring – May 6<sup>th</sup>      Summer I – July 2<sup>nd</sup>      Summer II – August 13<sup>th</sup>
- Submit a copy of the FINAL version of your thesis to the Advisory Committee two weeks in advance of the date of the Final Exam.
- 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 26<sup>th</sup>      Spring – February 20<sup>th</sup>      Summer I & II – May 26<sup>th</sup> through August 13<sup>th</sup>

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<sup>2</sup> 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.

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.
- Submit the [Thesis and Dissertation \(ETD\) Approval Form](#).
- Submit the [Master's Thesis Submission Form](#).
- Submit your ETD to the Graduate School within two weeks after the Final Exam and by the following [dates](#):  
Fall – December 24<sup>th</sup>    Spring – May 20<sup>th</sup>    Summer I – July 16<sup>th</sup>    Summer II – August 27<sup>th</sup>
- Confirm completion of all coursework and degree requirements by the following [dates](#):  
Fall – February 6<sup>th</sup>    Spring – July 3<sup>rd</sup>    Summer I – August 7<sup>th</sup>    Summer II – September 18<sup>th</sup>
- Pay all student fees on account prior to graduation.