

## Curriculum Checklist

Please refer to the program of study website below as your reference for course selection.

<https://engineering.uga.edu/degree/phd-engineering-fluid-thermal-systems-emphasis/>

Student Name: \_\_\_\_\_

Student ID (810/811): \_\_\_\_\_ Term of Enrollment: \_\_\_\_\_

**The Ph.D. in Engineering with Emphasis in Fluid and Thermal Systems requires a minimum of 72 credit hours in the Program of Study beyond B.S. degree or a minimum of 42 credit hours beyond M.S. degree.**

**I already have MS Degree:**

- Yes. Institution and Year \_\_\_\_\_
- No: Please use the “PhD in Engineering – Fluid and Thermal Systems Emphasis (Entering with BS Degree)” checklist.

Subject/ Number		Hours	Title	Semester	Approved Elective (Y/N)	Graduate only course (Y/N)	Need Course Sub. (Y/N)
<b>Required Courses</b>	ENGR 8950	1	Graduate Seminar*			Y	
	GRSC 7001	1	GradFIRST Seminar (UGA required)			Y	
<b>Fluid and Thermal Elective</b> (at least 9 credit hours)							
<b>Additional Elective</b> (at least 6 credit hours)							
<b>Research Courses</b>	ENGR 9000	23 (at least)	Doctoral Research	List Semesters and Credit Hours:			
	ENGR 9010		Project-Focused Doctoral Research	List Semesters and Credit Hours:			
	ENGR 9300	3	Doctoral Dissertation	List Semesters and Credit Hours:			
<b>Total Credit Hours</b> (by adding all taken courses above – at least 42 hours + GradFIRST)			<b>Credit Hours Requirement Guideline</b>				
			<b>Students must complete:</b> <ol style="list-style-type: none"> <li>A minimum of 16 semester hours of coursework, which must include:                             <ul style="list-style-type: none"> <li>At least 15 hours of 8000- and 9000- level courses of which 9 hours must be selected from the Fluid and Thermal Systems Course List.</li> <li>1 hour of ENGR 8950 Graduate Seminar (*Only up to 1 hours of ENGR 8950 may apply on the Program of Study if the student takes it more than once)</li> </ul> </li> </ol>				

	<ol style="list-style-type: none"><li>2. A minimum of 23 Doctoral Research hours (ENGR 9000 Doctoral Research or ENGR 9010 Doctoral project-focused research for students with an M.S).</li><li>3. 3 hours of ENGR 9300 Doctoral Dissertation</li></ol> <p>If you need course substitution, please complete and attach course substitution form. Course substitute form can be found at: <a href="https://engineering.uga.edu/students/graduate/ph-d-student-program-milestones/">https://engineering.uga.edu/students/graduate/ph-d-student-program-milestones/</a></p>
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Major Professor Signature: \_\_\_\_\_ Date: \_\_\_\_\_

ECAM (Mech, Ag) Graduate Coordinator (sign and date): \_\_\_\_\_ Date: \_\_\_\_\_

# UGA CENGR Ph.D. in Engineering with Emphasis in Fluid and Thermal Systems

## FLUID AND THERMAL SYSTEMS COURSE LIST

- CVLE(MCHE) 8160 Advanced Fluid Mechanics
- CVLE(MCHE) 8350 Nonlinear Finite Element Analysis
- CVLE(MCHE) 8640 Advanced Strength of Materials
- ELEE 8220 Nonlinear Control Systems
- ENGR 8130 Statistical Learning and Data Mining in Engineering
- ENGR 8180 Advanced Mass Transfer
- ENGR 8220 Microfluidic Transport Phenomena
- ENGR 8910 Foundations for Engineering Research
- INFO 8750 Advance Programming for Data Mining
- MCHE 8170 Advanced Heat Transfer
- MCHE 8250 Combustion Science
- MCHE 8380 Continuum Mechanics
- MCHE 8500 Technical Foundations of Energy for Policy Practitioners
- MCHE 8650 Aerosol Science and Engineering
- MCHE 8710 Engineering Properties of Animal and Plant Materials: Form and Function
- MCHE 8850 Gas Dynamics
- PHYS 8301 Statistical Mechanics I