



**Course Planning Worksheet** for the **Research Option of the MSEE**  
degree in the **Department of Environmental Sciences and Engineering**  
for students matriculating in Fall 2023  
**(2-year degree)**

<b>Student Name:</b>	<b>PID:</b>	<b>Cohort:</b>
Biology prerequisite met:		Statistics prerequisite met:

Course #	Course name	Credits Taken	Planned Semester	Notes, substitutions, exemptions.*
<b>Required Core Courses</b>				
<a href="#">SPHG 600</a>	Introduction to Public Health (3 cr)		Fall/Spring (Year 1)	
<a href="#">ENVR 601</a> OR <a href="#">EPID 600</a>	Epidemiology for Environmental Scientists and Engineers (3 cr) Principles of Epidemiology for Public Health (3 cr)		Spring (Year 1)	
ENVR 989	Global Environmental Crisis Management (3 cr)		Spring (Year 1)	
<b>Department Seminar</b>				
<a href="#">ENVR 400</a>	<a href="#">Seminar Series - attend 15 sessions and associated work – see syllabus for details (0.5 cr each semester until complete)</a>		Fall & Spring	
Requirement completion verified:				Date:
<b>Approved Engineering Electives (total ≥12 cr at 400 level or higher, see table below)</b>				
<b>Other electives (an undergraduate or graduate course in statistics, and one in biological sciences must be taken if such courses have not been taken in the past e.g., in another institution. They can count toward graduation credits if they are 400 level or above.)</b>				
Course work approved:				Date:
<b>Research</b>				
ENVR 991	Research ≥ 3 cr			
<b>Master's Technical Report *Register under faculty mentor's section of ENVR 992</b>				
ENVR 992	Master's Technical Report (3 hours)			
<b>Oral Comprehensive Examination Scheduled</b>				
Date verified:				
<b>Total credits required for graduation ≥ 30 cr at 400 level or above, excluding ENVR 400 (24 credits of formal coursework, 15 cr must be ENVR courses, not including ENVR 400, 991, 992)</b>				
Date verified:				

\*Course Exemptions do **not** count towards total credit hours needed for degree.

**IMPORTANT:** Students should contact [ESEStudentServices@unc.edu](mailto:ESEStudentServices@unc.edu) to all obtain all needed [Graduate School forms](#) and to ensure they have the correct forms for each stage of defense/exam. Paperwork is typically signed electronically and completed paperwork is submitted by the Academic Coordinator via email to The Graduate School.

**Milestones and Typical Timeline**  
for the **Research Option** of the **MSEE degree** in the  
Department of Environmental Sciences and Engineering  
matriculating in Fall 2023

Timeline will put students on track for a May graduation date.

Milestones	Semesters in Program
Admission	0
Confirm Faculty Mentor ( <b>Name</b> ): Meet with your faculty mentor on a regular schedule. Typically, every 2 weeks, but at least every 4 weeks. <i>Bring <a href="#">Faculty Mentor meeting form</a>.</i>	0
Out-of-state students start working to meet NC Residency Requirements	0
NC Residency requirement met ( <i>not applicable for international students</i> )	Out-of-state students are encouraged to apply after 365 days in NC
Meet with ESE Academic Coordinator ( <i>students encouraged to meet with AC once a semester before registration</i> )	1-4
Develop course work plan (see <i>page 1</i> ) with Faculty Mentor	1
Select research topic with Faculty Mentor	1
Faculty Mentor signs/ <b>approves course work plan</b> (see <i>page 1</i> - return this form to ESE Student Services) Bring transcripts and course planning worksheet to meeting. Bring the <a href="#">ESE Committee Meeting form</a> . Submit signed course planning worksheet to ESE Student Services after meeting.	1 - 2
<b>Select &amp; meet with committee</b> and Faculty Mentor ( <i>At least 2 members from ESE faculty; at least 1 must hold a degree in Engineering</i> )  <u>Committee Member Names (provide full names)</u>  1. _____ <b>ENVR Faculty</b> Title: _____ 2. _____ <b>ENVR Faculty</b> Title: _____ 3. _____ <b>ENVR/Outside Faculty</b> Title/Status: _____  <i>NOTE: Refer to the <a href="#">Graduate Handbook</a> for policies about committee composition and the role of Faculty Mentor/chair. Look up <b>Fixed-term Faculty Status</b> <a href="#">here</a>. Notify ESE Student Services of any changes</i>	1 - 2
Complete course work	3 - 4
Complete research	3 - 4
Write <b>Technical Report</b> (December – March)  After approval by Faculty Mentor, provide to committee > 10 days before Oral Exam	4
In March, select the date/time for defense. Book the room (include link.) Create a Zoom link. Prepare your Defense announcement ( <a href="#">instructions in handbook</a> ).	4

<b>Oral Comprehensive exam</b> - includes a defense of Technical Report (by April 1) Bring transcripts, course planning worksheet, Graduate School forms for signatures <ul style="list-style-type: none"> <li>• <i>Master's Comprehensive Exam or Approved Substitute Report Form</i> (<a href="#">PART III</a>)</li> <li>• <a href="#">Report of Approved Substitute for a Master's Thesis Form</a></li> </ul> For information about where to sign the required Graduate School forms, <a href="#">see here</a> .		4
Revisions to Technical Report. Signatures on Graduate School form ( <a href="#">PART IV signed at this time</a> ) (by mid-April)  Submit Technical Report to the <a href="#">Carolina Digital Repository</a> ( <a href="#">see handbook</a> ) <a href="#">See here</a> for <b>Graduation School thesis submission deadlines by semester</b>		4
Apply for graduation; Order Regalia, Check milestones in ConnectCarolina; complete Exam paperwork, Graduate School Exit Survey.		4

		<b>MSEE Course Options</b>				
Course	Course #	Credits	Course Title	Area of Interest	Instructor	Semester
<b>Required MSEE Courses</b> ( <i>see Course Planning Sheet for more details</i> )						
ENVR	601	3	Epidemiology For Environmental Scientists	Water/Air	Brown/Yeatts	Spring
	<i>OR</i>					
EPID	600	3	Principles of Epidemiology for Public Health	Water/Air	TBD	Spring
SPHG	600	3	Introduction to Public Health	Water/Air	TBD	Fall
ENVR	989	3	Environmental Crisis Management <i>*Research Track ONLY</i>	Water/Air	Vizuite	Spring
ENVR	992	3	Master's Technical Report <i>*Research &amp; Professional Track</i>	Water/Air	TBD	Fall/Spring
ENVR	400	0.5	Departmental Seminar	Water/Air	Fry	Fall/Spring
<b>Approved Engineering Electives</b> ( <i>total needed: 12 cr at 400 level or higher</i> )						
ENVR	416	4	Aerosol Physics and Chemistry	Air	Surratt	Fall
ENVR	675	3	Air Pollution, Chemistry, and Physics	Air	West	Fall
ENVR	453	3	Groundwater Hydrology	Water	Weigand	Fall
ENVR	525	3	Water, Sanitation, Hygiene, and Global Health	Water	Fisher	Fall
ENVR	582	3	Sanitation for Development	Water	Manga	Fall
ENVR	755	3	Analysis of Water Resource Systems	Water	Characklis	Fall
ENVR	756	3	Physical/Chemical Treatment Processes	Water	Coronell	Spring
ENVR	451	3	Introduction to Environmental Modeling	Water/Air	Vizuite	Fall
ENVR	468	3	Temporal GIS and Space/Time Geostatistics for the Environment and Public Health	Water/Air	Serre	Fall
ENVR	500	3	Environmental Processes, Exposure and Risk Assessment	Water/Air	Rager	Spring
ENVR	666	3	Numerical Methods	Water/Air	Miller	Fall (on
ENVR	671	3	Environmental Physics 1	Water/Air	Miller	Fall (on
ENVR	672	3	Environmental Physics 2	Water/Air	Miller	Spring (on
ENVR	759	3	Multiphase Transport Phenomena	Water/Air	Miller	Spring (on
ENVR	760	3	Uncertainty Quantification for Environmental Systems	Water/Air	Miller	Spring (on
ENVR	765	3	Space Time Exposure Mapping and Risk Assessment	Water/Air	Serre	Spring
<b>** General ENVR courses of potential interest to MSEE students</b> ( <i>Note: these courses cannot replace engineering courses</i> )						
ENVR	775	1	Global Climate Change: Interdisciplinary perspectives	Air	West	Spring
ENVR	419	3	Chemical Equilibria in Natural Waters	Water	Coronell	Fall
ENVR	685	3	Water and Sanitation Policy in Lesser Developed Countries	Water	Whittington	Spring
ENVR	785	3	Public Investment Theory	Water	Whittington	Spring
ENVR	788	3	Managing Environmental Financial Risk	Water	Characklis	Spring
ENVR	548	3	Sustainable Energy Systems	Water/Air	Kittner	Fall
ENVR	403	3	Environmental Chemistry Processes	Water/Air	Surratt	Spring
ENVR	411	3	Laboratory Techniques and Field Measurements	Water/Air	Nylander-French/Stale	TBA
ENVR	580	3	Policy Design for Environmental Health Solutions	Water/Air	Whittington	Spring
ENVR	635	3	Energy Modeling for Environment and Public Health	Water/Air	Kittner	Spring

**\*\*NOTE:** The "General" list is a *partial list* of courses we offer that might be of interest. See our [ESE Courses page](#) to find a list of what we are offering the current semester.

**\*\*If students need to change their Faculty Mentor, please contact ESE Student Services at: [esestudentservices@unc.edu](mailto:esestudentservices@unc.edu). Please also see our Addressing Students Concerns [guide for students here](#).**