



**Course Planning Worksheet** for the **Professional Option of the MSEE**  
degree in the **Department of Environmental Sciences and Engineering**  
for students matriculating in Fall 2023  
**(1-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 <b>OR</b> Spring |                                    |
| <a href="#">ENVR 601</a> <b>OR</b><br><a href="#">EPID 600</a>  | Epidemiology for Environmental Scientists (3 cr)<br>Principles of Epidemiology for Public Health (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> |  |               |                       |                                    |
|   |  |               |                       |                                    |
|   |  |               |                       |                                    |
|   |  |               |                       |                                    |
|   |  |               |                       |                                    |
|   |  |               |                       |                                    |
|   |  |               |                       |                                    |
| Total Credits of Formal Coursework Taken:   |  |               |                       |                                    |
| Course work approved:   |  |               | Date:                 |                                    |
| <b>Master's Technical Report *Register for ENVR 992 section 003</b>   |  |               |                       |                                    |
| ENVR 992.003  | Masters Technical Report in Global Environmental Crisis Management – including comprehensive oral exam (3 cr)                            |               | Spring (Year 1)       |                                    |
| <b>Total credits required for graduation ≥ 30 cr at 400 level or above, <u>excluding</u> ENVR 400 (24 credits of formal coursework, <b>15 cr must be ENVR courses</b>, <u>not including</u> 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 **Professional 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> ):<br>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 (not applicable for international students)  | 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> )  | 1-2  |
| Develop course work plan ( <i>see page 1</i> ) with Faculty Mentor   | 0 - 1  |
| Faculty Mentor signs/ <b>approves course work plan</b> ( <i>see page 1 - return this form to ESE Student Services</i> )<br>Bring transcripts and course planning worksheet to meeting. Bring the ESE Committee Meeting form.<br>Submit signed course planning worksheet to ESE Student Services after meeting.   | 1 - 2  |
| Complete course work   | 2  |
| Complete ENVR 992.003 and associated <b>Oral Comprehensive exam</b> and <b>Technical Report</b><br><br>Bring Graduate School forms to exam 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> .<br><br>Submit Technical Report to the <a href="#">Carolina Digital Repository</a> ( <a href="#">see handbook</a> )<br><a href="#">See here</a> for <b>Graduation School thesis submission deadlines by semester</b> | 2  |
| Apply for graduation; Order Regalia, Check milestones in ConnectCarolina; complete Exam paperwork, Graduate School Exit Survey.  | 4  |

| MSEE Course Options  |          |         |   |                  |                       |               |
|--|----------|---------|---|------------------|-----------------------|---------------|
| Course   | Course # | Credits | Course Title  | Area of Interest | Instructor            | Semester      |
| Required MSEE Courses ( <i>see Course Planning Sheet for more details</i> )  |          |         |   |                  |                       |               |
| ENVR   | 601      | 3       | Epidemiology For Environmental Scientists                                       | Water/Air        | Brown/Yeatts          | Spring        |
|  | OR       |         |   |                  |                       |               |
| 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   |
| Approved Engineering Electives ( <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<br>(on   |
| ENVR   | 671      | 3       | Environmental Physics 1   | Water/Air        | Miller                | Fall<br>(on   |
| ENVR   | 672      | 3       | Environmental Physics 2   | Water/Air        | Miller                | Spring<br>(on |
| ENVR   | 759      | 3       | Multiphase Transport Phenomena  | Water/Air        | Miller                | Spring<br>(on |
| ENVR   | 760      | 3       | Uncertainty Quantification for Environmental Systems                            | Water/Air        | Miller                | Spring<br>(on |
| ENVR   | 765      | 3       | Space Time Exposure Mapping and Risk Assessment                                 | Water/Air        | Serre                 | Spring        |
| General ENVR courses of potential interest to MSEE students (Note: these courses cannot replace engineering courses) |          |         |   |                  |                       |               |
| 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](#).