

| | |
|--|--------------------|
| Name: | Student ID Number: |
| Qrt/Year Expected to Advance to Candidacy: | Email Address: |
| Qrt/Year Expected to Graduate: | GPA: |
| Thesis or Non-Thesis Option: | Thesis Advisor: |

| CORE COURSES (12 Units) | COURSE Number | UNITS | GRADE | QTR/YR | <u>NON-THESIS OPTION</u> 48 Units Total See below for details | <u>THESIS OPTION</u> 48 Units Total See below for details |
|--------------------------------------|------------------|-------|-------|--------|--|--|
| ADVANCED MATH | | 4 | | | One course required (see page 2) | One course required (see page 2) |
| WATER | | 4 | | | One course required (see page 2) | One course required (see page 2) |
| ENERGY, AIR QUALITY & CLIMATE | | 4 | | | One course required (see page 2) | One course required (see page 2) |
| TOTAL UNITS FOR THIS SECTION: | | | | | | |

| COURSE TITLE | COURSE | UNITS | GRADE | QTR/YR | <u>Electives: 28 Units</u> | <u>Electives: 16 units</u> |
|--------------------------------------|--------|-------|-------|--------|---|---|
| | | | | | Students must fulfill a minimum of 28 elective units from graduate courses listed on attached list (see page 2). | Students must fulfill a minimum of 16 elective units from graduate courses listed on attached list (see page 2). <u>Thesis Research: 10 units</u> Students can fulfill a maximum of 10 units of CEE 296 MS Thesis Research. |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| TOTAL UNITS FOR THIS SECTION: | | | | | | |

| COURSE TITLE | COURSE | UNITS | GRADE | QTR/YR | <u>Seminars/Other:</u> (8 out of 48 Units) | <u>Seminars/Other:</u> (10 out of 48 Units) |
|--------------------------------------|--------|-------|-------|--------|--|--|
| | | | | | Required: 3 units of <u>CEE 295: Seminars in CEE</u> (Max. of 3 units apply to degree requirements). Options for the remaining 5 units: 1) Approved graduate-level courses 2) CEE 299 Individual Research 3) Approved upper-division undergraduate units (10 units max.) | Required: 3 units of <u>CEE 295: Seminars in CEE</u> (Max. of 3 units apply to degree requirements). Options for the remaining 7 units: 1) Approved graduate-level courses 2) CEE 299 Individual Research 3) Approved upper-division undergraduate units (10 units max.) |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| TOTAL UNITS FOR THIS SECTION: | | | | | | |
| TOTAL UNITS FOR MS PROGRAM: | | | | | | |

| | | | |
|-----------------------------|-------|-------------------------------------|--|
| <u>SIGNATURES:</u> | | <u>MS THESIS COMMITTEE MEMBERS:</u> | |
| CANDIDATE: | DATE: | CHAIR: | |
| FOCUS AREA FACULTY ADVISOR: | DATE: | MEMBER: | |
| CEE GRADUATE ADVISOR: | DATE: | MEMBER: | |

Please submit form to the Grad. Coordinator by the end of the FIRST quarter of enrollment. Any changes MUST be approved by the Faculty Graduate Advisor.

Core Requirements (12 Units):

Students entering the program without a M.S. degree must complete the following core requirements before petitioning to Advance to Candidacy for the M.S. Degree:

| Area: | Requirements: | Courses: |
|----------------------|---|--|
| Advanced Mathematics | <u>One of the five options (4 units):</u> | ENGRCEE 283 Math. Methods in Eng. Analysis (F) ENGRMAE 200A Engineering Analysis I (F) ENGRMAE 200B Engineering Analysis II (W) CBE 200 Applied Engineering Mathematics I (F) PHYSICS 229A Computational Methods (F) |
| Areas of Emphasis | <u>One course from each of the two primary Areas of Emphasis:</u> (1) Water (4 units) (2) Energy, Air Quality & Climate (4 units) | See below under: 'Core Courses by Areas of Emphasis' |

Elective Courses: Additional course requirements can be fulfilled by using any of the courses below. Other courses can be included with the prior approval of the Faculty Graduate Advisor and Graduate Director (Professor Russell Detwiler: detwiler@uci.edu). Note: For non-CEE courses, please check individual Department schedules to confirm course offerings.

Core Courses by Areas of Emphasis (the following courses can all be used as electives as well)

| Water: | Energy, Air Quality & Climate: |
|---|---|
| ENGRCEE 260 Desalination (*) ENGRCEE 262 Environmental Chemistry (F) ENGRCEE 263 Adv. Biological Treatment Processes (*) ENGRCEE 265 Physical-Chemical Treatment Processes (W) ENGRCEE 269 Beach Dynamics (*) ENGRCEE 270 Flood Risk & Modeling (*) ENGRCEE 271 Flow in Unsaturated Porous Media (F) ENGRCEE 272 Groundwater Hydrology (F) ENGRCEE 273 Watershed Modeling (W) ENGRCEE 276 Hydrology (F) ENGRCEE 277 Hydrologic Transport Fundamentals (S) ENGRCEE 278 Fluid Mechanics of Open Channels (*) ENGRCEE 279 Environmental Transport Modeling (W) ENGRCEE 289 Analysis of Hydrologic Systems (S) ENGRCEE 290 Merging Models and Data (S) ENGRCEE 291 Hydrologic Remote Sensing (*) ENGRCEE 292 Wavelets in Hydrology, Eng, & Geoscience (W) ENGRCEE 298** Intro to Env. Fluid Mechanics & Turbulence (F) | ENGRCEE 264 Carbon & Energy Footprint Analysis (S) ENGRCEE 267 Energy, Climate Change & Urban AQ (*) ENGRCEE 274 Climate Data Analysis (W) ENGRCEE 298** Wildfires Science & Engineering (S) EARTHSS 240 Atmospheric Chemistry and Physics EARTHSS 242 Advanced Atmospheric Chemistry ENGRMAE 210 Combustion ENGRMAE 214A Fuel Cell Fundamentals & Tech. ENGRMAE 215 Advanced Combustion Technology ENGRMAE 218 Sustainable Energy Systems ENGRMAE 260 Current Issues Related to Tropospheric and Stratospheric Processes Key: (F) Fall Quarter; (W): Winter Quarter; (S): Spring Quarter; (*): Not offered in 2020/2021 (**): These are approved graduate courses that can be applied toward M.S. program requirements via a General Petition. Please contact the Graduate Coordinator to discuss this process (Angie Zuniga: angeli@uci.edu). |
| | Other Approved Elective Courses: ENGRCEE 214 GIS for CEE (F) |

NOTE: The following can **ONLY** be included with the **prior** approval of the Graduate Director. Please email your request to Prof. Detwiler: detwiler@uci.edu.

- 1) Upper-division undergraduate courses. Include a description of the course in your email request.
- 2) MS Thesis Research units can be extended to 16 units. Include email approval from Thesis Advisor in request to Prof. Detwiler.