



BREN SCHOOL OF ENVIRONMENTAL SCIENCE & MANAGEMENT
Program of Study (POS) Form
**Example for WRM (emphasis on water quality)*

This is only an example to help guide you in developing your own POS. The specific courses that you include will differ depending on your background, interests, and goals! In addition, you may have more, less and/or different sections and more or less classes in each section

NAME: _____ **PERM # (required) :** _____

SPECIALIZATION(S): Water Resources Management

- A **MINIMUM of 80 units** of completed (approved) coursework is required.
- Students may count a **MAXIMUM of 4 units** of ESM 596 towards their POS unit count.
- Students may count a **MAXIMUM of 8 units** of UPPER DIVISION undergraduate coursework as approved their advisor(s) towards their POS unit count. Note: LOWER DIVISION coursework can never be counted.
- Students may count a **MAXIMUM of 4 units** of 400-level coursework (in addition to 401ABC) towards their POS unit count.
- If a CORE course is waived, the units need to be made up with other elective courses.

CORE REQUIREMENTS:

CORE COURSES	QTR/YR COMPLETED <small>Write waived if waiver approved and do not count the units</small>	UNITS	GRADE
ESM 201 Ecol. of Managed Ecosystems		4	
ESM 202 Environmental Biogeochemistry		4	
ESM 203 Earth Systems Science		4	
ESM 204 Econ. Environmental Management		4	
ESM 206AB Stats & Data Analysis		4	
ESM 207 Environmental Law & Policy		4	
ESM 210 Business & the Environment		4	
ESM 241 Environmental Politics & Policy		2	
ESM 251 Intro to Env. Policy Analysis		2	

GROUP PROJECT (CORE REQUIREMENT)	UNITS	GRADE
ESM 401A (Spring of 1 st year)	4	
ESM 401B (Fall of 2 nd year)	4	
ESM 401C (Winter of 2 nd year)	4	

Total CORE Units	44 - waived units =	
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FACULTY SIGNATURES (Required):

Reviewed and approved by: _____ **Date:** _____
(Signature of Faculty Advisor for Specialization)

Reviewed and approved by: _____ **Date:** _____
(2nd Faculty Advisor Signature for Double Specialization, if applicable)

POS ELECTIVE UNITS:

- Minimum POS elective units = 80 Units - # CORE Units = 36 minimum POS elective units.
- Unless you have waived a course this will be 80 - 44 = 36 minimum POS elective units.
- POS elective units consist of coursework that builds depth in the student’s specified area of specialization.
- Students may take *up to 8 units* of POS elective coursework as P/NP (undergraduate courses) or S/U (graduate courses).
- Students may wish to take additional elective units that are not included in the POS. All of these units may be taken S/U or P/NP.

The POS is designed specifically for the chosen specialization **and** the student’s particular background and goals. An acceptable POS includes courses that build depth in a particular area of specialization and also develop technical skills. MESM students are encouraged to identify different areas they wish to gain more knowledge and skill.

Please visit <http://www.bren.ucsb.edu/academics/MESM.html> and click on the accompanying link to view course work recommended for your specialization.

NUMBER OF COURSES:	3	of	4
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ESSENTIAL COURSES: RECOMMENDED TO TAKE AT LEAST TWO OF THESE CLASSES

COURSE #:	COURSE TITLE:	UNITS	GRADE
ESM 222	Fate and Transport of Pollutants	4	
ESM 223	Management of Soil and Groundwater Quality	4	
ESM 224	Sustainable Watershed Quality Management	4	
ESM 235	Watershed Analysis		

TOTAL UNITS:	12
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NUMBER OF COURSES:	2	of	2
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ECONOMICS & POLICY: RECOMMENDED TO TAKE AT LEAST ONE OF THESE COURSES

COURSE #:	COURSE TITLE:	UNITS	GRADE
ESM 225	Water Policy	4	
ESM 242	Natural Resources Economics and Policy	4	
ESM 243	Environmental Policy Analysis	4	
ESM 245	Cost Benefit Analysis	4	

TOTAL UNITS:	8
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NUMBER OF COURSES:	1	of	3
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TECHNICAL SKILLS: RECOMMENDED TO TAKE AT LEAST ONE COURSE IN THIS AREA

COURSE #:	COURSE TITLE:	UNITS	GRADE
ESM 261	Management of Scientific Data	4	
ESM 263	GIS	4	
ESM 266	Remote Sensing		

TOTAL UNITS:	4
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NUMBER OF COURSES:	2	of	4
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ADDITIONAL SCIENTIFIC DEPTH

COURSE #:	COURSE TITLE:	UNITS	GRADE
ESM 214	Bioremediation	4	
ESM 219	Environmental Microbiology	4	
ESM 233	River Restoration	2	
Earth 173	Groundwater Hydrology	4	

TOTAL UNITS:	6-8
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NUMBER OF COURSES:	1	of	4
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ADDITIONAL SUPPORTING ELECTIVES

COURSE #:	COURSE TITLE:	UNITS	GRADE
ESM 282	Industrial Ecology	4	
ESM 273	Life Cycle Assessment	4	

TOTAL UNITS:	4
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NUMBER OF COURSES:	2	of	2
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400-LEVEL ELECTIVES: A MAXIMUM OF 4-UNITS MAY COUNT TOWARDS 80 UNIT MINIMUM

COURSE #:	COURSE TITLE:	UNITS	GRADE
ESM 437	Writing for Environmental Professionals	2	
ESM 430	Law Workshop	0.5	

TOTAL UNITS:	2.5
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Total POS ELECTIVE Units	36.5-
Not to exceed 80 - # core units + 6 (i.e. normally 80 - 44 + 6 = 42)	38.5

This does not mean you cannot take more than this. It just means that you only include in the POS the minimum acceptable set of coursework to develop adequate depth in your specialization.

TOTAL (CORE + POS ELECTIVE) UNITS = $\frac{80.5-82.5}{(must\ be\ at\ least\ 80)}$