**Environmental Science and Policy**

**Aquatic Ecology Concentration (AQEC)**

**Master of Science**

**Student: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ G# \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Advisor \_\_\_\_\_\_\_\_\_\_ Admitted \_\_\_\_\_\_\_**

This concentration will provide students with a well-grounded MS in the study of aquatic environments such as lakes, streams, watersheds, and estuaries. Emphasis is placed on food webs, biogeochemical cycles, water quality, habitat characteristics, and life histories of aquatic organisms. Students will become proficient with research tools including literature review, field and laboratory methods, and analytical tools as well as applications to management issues.

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| **Required Aquatic Science core Courses (6 credits)** |
| **Semester** | **Course #** | **Course Name** | **Credits** |
|  | EVPP 550 | Waterscape Ecology and Management | 3 |
|  | EVPP 581 | Estuarine and Coastal Ecology | 3 |
| **Additional Aquatic Science Courses\* (6 credits)** |
|  |  |  | 3 |
|  |  |  | 3 |
| Remaining 6 credits chosen from the following: [EVPP 505 - Selected Topics in Environmental Science](http://catalog.gmu.edu/preview_program.php?catoid=22&poid=20500) (0-4); [EVPP 519 - Marine Mammal Biology and Conservation](http://catalog.gmu.edu/preview_program.php?catoid=22&poid=20500) (3); [EVPP 521 - Marine Conservation](http://catalog.gmu.edu/preview_program.php?catoid=22&poid=20500) (3); [EVPP 536 – The Diversity of Fishes](https://catalog.gmu.edu/search/?P=EVPP%20536) (3); [EVPP 563 - Coastal Morphology and Processes](http://catalog.gmu.edu/preview_program.php?catoid=22&poid=20500) (4); [EVPP 641 - Environmental Science and Public Policy](http://catalog.gmu.edu/preview_program.php?catoid=22&poid=20500) (3); [EVPP 643 - Microbial Ecology](http://catalog.gmu.edu/preview_program.php?catoid=22&poid=20500) (4); [EVPP 645 - Freshwater Ecology](http://catalog.gmu.edu/preview_program.php?catoid=22&poid=20500) (3); [EVPP 646 - Wetland Ecology and Management](http://catalog.gmu.edu/preview_program.php?catoid=22&poid=20500) (3); [EVPP 648 - Population Ecology](http://catalog.gmu.edu/preview_program.php?catoid=22&poid=20500) (3); [EVPP 652 - The Hydrosphere](http://catalog.gmu.edu/preview_program.php?catoid=22&poid=20500) (3); [EVPP 741 - Advanced Topics in Environmental Science and Public Policy](http://catalog.gmu.edu/preview_program.php?catoid=22&poid=20500) (0-4); [EVPP 745 - Environmental Toxicology](http://catalog.gmu.edu/preview_program.php?catoid=22&poid=20500) (3); [CLIM 512 – Physical Oceanography](https://catalog.gmu.edu/search/?P=CLIM%20512) (3) |
| **Public Policy (6 credit hours)** |
|  |  |  | 3 |
|  |  |  | 3 |
| *At least 6 credits are required in environmental law, environmental conflict resolution, environmental ethics, human ecology, environmental planning, or public affairs*. |
| **Aquatic Methods (6 credit hours)** |
|  |  |  | 3 |
|  |  |  | 3 |
| At least 6 credits are required to include statistics, research design, multivariate data analysis ([EVPP 651](http://catalog.gmu.edu/preview_course_nopop.php?catoid=22&coid=241427) ), geographic information systems, lab and field classes ([EVPP 555](http://catalog.gmu.edu/preview_course_nopop.php?catoid=22&coid=237167) , [EVPP 582](http://catalog.gmu.edu/preview_course_nopop.php?catoid=22&coid=237172) , [EVPP 647](http://catalog.gmu.edu/preview_course_nopop.php?catoid=22&coid=237196) ). |
| **Seminar (1 credit hour)** |
|  | [EVPP 692 - Master's Seminar in Environmental Science and Public Policy](http://catalog.gmu.edu/preview_program.php?catoid=22&poid=20500)  | 1 |
| Title: |
| **Research**  |
| Option 1orOption 2 | EVPP 799 EVPP 798  | Thesis *(continuous registration)* *(minimum of 3 credits)* Individual Project\* *(1-3 credits)*Comprehensive Exam Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| **6. Electives** *(if necessary to bring the total to 33 credits)* |
|  |  |  |  |
|  |  |  |  |
| **TOTAL** | **33** |

**SIGNATURES (required)**

**Student \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Project or Thesis Committee (required)**

**Chair \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Member \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Member \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Graduate Program Director \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

***\* A comprehensive exam must be passed for the Individual Project and a defense must be passed for the thesis option. All substitutions must be approved by the Graduate Program Director.***