**Environmental Science and Policy**

**Earth Surface Processes and Environmental Geochemistry Concentration (ESEG)**

**Master of Science**

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

This concentration provides a specific research focus in the earth science area and is designed for students desiring an MS degree with an earth science geology theme.

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| **Natural Sciences (16 credit hours)** |
| **Semester** | **Course #** | **Course Name** | **Credits** |
|  |  |  | 3 |
|  |  |  | 3 |
|  |  |  | 3 |
|  |  |  | 3 |
|  |  |  | 4 |
| *Students select at least one course (totaling 10 of the 16 required credits) from each of the following areas: soils science, hydrogeology, and geochemistry.* [The remaining courses (6 credits) may be chosen from a list of applicable EVPP, CHEM, and GEOL graduate courses, including: GEOL 500 - Selected Topics in Modern Geology](http://catalog.gmu.edu/preview_program.php?catoid=19&poid=17800&returnto=4047)**,** [GEOL 501 - Selected Topics in Modern Geology](http://catalog.gmu.edu/preview_program.php?catoid=19&poid=17800&returnto=4047)**,** [GEOL 506 – Soil Science](https://catalog.gmu.edu/search/?scontext=courses&search=GEOL+506)**,** [GEOL 513 – Hydrogeology,](https://catalog.gmu.edu/search/?scontext=courses&search=GEOL+513) [GEOL 601 - The Lithosphere](http://catalog.gmu.edu/preview_program.php?catoid=19&poid=17800&returnto=4047)**,** [CHEM 633 - Chemical Thermodynamics and Kinetics](http://catalog.gmu.edu/preview_program.php?catoid=19&poid=17800&returnto=4047) **,** [CHEM 651 - Environmental Chemistry of Organic Substances](http://catalog.gmu.edu/preview_program.php?catoid=19&poid=17800&returnto=4047) **,** [CHEM 728 - Introduction to Solid Surfaces](http://catalog.gmu.edu/preview_program.php?catoid=19&poid=17800&returnto=4047) **,** [EVPP 503 - Field Mapping Techniques](http://catalog.gmu.edu/preview_program.php?catoid=19&poid=17800&returnto=4047) **,** [EVPP 505 - Selected Topics in Environmental Science](http://catalog.gmu.edu/preview_program.php?catoid=19&poid=17800&returnto=4047) **,** [EVPP 543 - Tropical Ecosystems](http://catalog.gmu.edu/preview_program.php?catoid=19&poid=17800&returnto=4047) **,** [EVPP 550 - Waterscape Ecology and Management](http://catalog.gmu.edu/preview_program.php?catoid=19&poid=17800&returnto=4047) **,** [EVPP 563 - Coastal Morphology and Processes](http://catalog.gmu.edu/preview_program.php?catoid=19&poid=17800&returnto=4047) **,** [EVPP 577 - Biogeochemistry: A Global Perspective](http://catalog.gmu.edu/preview_program.php?catoid=19&poid=17800&returnto=4047) **,** [EVPP 607 - Fundamentals of Ecology](http://catalog.gmu.edu/preview_program.php?catoid=19&poid=17800&returnto=4047) **,** [EVPP 610 - Bioremediation: Theory and Applications](http://catalog.gmu.edu/preview_program.php?catoid=19&poid=17800&returnto=4047)**,** [EVPP 643 - Microbial Ecology](http://catalog.gmu.edu/preview_program.php?catoid=19&poid=17800&returnto=4047)**,** [EVPP 745 - Environmental Toxicology](http://catalog.gmu.edu/preview_program.php?catoid=19&poid=17800&returnto=4047) **.** |
| **Public Policy (6 credit hours)** |
|  |  |  | 3 |
|  |  |  | 3 |
| At least 6 credits are required in environmental law, human dimension of global change, environmental ethics, human ecology, or planning. |
| **Methods and Statistics (6 credit hours)** |
|  |  |  | 3 |
|  |  |  | 3 |
| At least 6 credits are required in remote sensing, GIS, statistics, instrumentation, or modeling. |
| **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 1or Option 2 | EVPP 799 EVPP 798 | Thesis *(continuous registration) (minimum of 3 credits)**Individual Project\* (1-3 credits)**Comprehensive Exam Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* |  |
| **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.***