## MS in Environmental Engineering (Chemical and Biological Engineering) Thesis Option (Plan A)

Updated: April 11, 2012

This summary is only a partial list of the most commonly needed information. See the Graduate Bulletin for full specifications. This list is a combination of general requirements of The Graduate School (http://www.montana.edu/wwwdg/) and specific departmental requirements.

## **General Requirements**

- Minimum 30 credits total (including thesis credits)
- Minimum 20 credits coursework (4xx or 5xx-level)
- Minimum 10 credits thesis (ECHM 590 or EBIO 590)
- 2/3 of total credits (including thesis) must be 5xx-level or higher
- Courses graded below C- cannot be used to satisfy degree requirements
- Three credits (minimum) registration required during term of:
  - o Comprehensive examination and thesis defense
  - o Graduation (or 1 credit with *in absentia* request on file)

## **Course Requirements**

- ECHM 594 Seminar (1 cr, may be taken twice for credit)
- ECHM 503 Thermodynamics (3 cr)
- ECHM 530 Transport Phenomena (3 cr)
- EENV 561 Environmental Engineering Reactor Theory (2 cr) or ECHM 510 Reaction Engineering and Reaction Modeling (3 cr) or EBIO 566 Fundamentals of Biofilm Engineering (3 cr)
- EENV 562 Water Treatment Processes and Design (3 cr) or ENVE 563 Wastewater Treatment Processes and Design (3 cr)\*
- EENV 590 Master's Thesis (10 cr)

(\*Substitution for this course requirement may be approved by the committee after carefully considering the professional goals of the student.)

## **Additional Recommended Courses**

- ECIV 529 Groundwater Contamination (3 cr)
- EENV 534 Environmental Engineering Investigations (3 cr)

Each student's graduate advisor and committee are to work with the student to prepare a Program of Study listing the courses the student will take. This program must be submitted to The Graduate School before the end of the second semester of study.