

**College of Engineering & Applied Science**  
**~ Doctor of Philosophy in Engineering ~**

**GUIDELINES IN DEVELOPING THE PROGRAM OF STUDY**

For enrollment management and class scheduling purposes, the student, in consultation with the major professor, should develop a proposed program of studies during the first year of enrollment. This program of study must be approved by the Associate Dean of Graduate Programs and must meet the distribution requirement listed below. For subsequent changes, the student must file a revised program of study for approval.

The minimum degree requirement is 66 graduate credits beyond the bachelor's degree. The minimum credit distribution of course work to be undertaken must be as follows:

- 21 credits in the major area or concentration
- 9 credits in an approved minor area
- 9 credits of approved electives
- 6 credits in mathematics and/or quantitative methods
- 3 credit CEAS Graduate Seminar (Ethics and Engineering Communication, xxx700)
- 18 credits of dissertation

The 6 credit requirement in mathematics and/or quantitative methods may be met by satisfactorily completing certain courses specified by the GPSC or by taking the minor in mathematics. (see approved list) When such courses also count for either the major or the minor area, the remaining credits may be taken as approved electives.

The student must achieve a 3.0 GPA separately in each of the following areas: the major area, the minor area, the quantitative methods area, and the required ethics course.

The major area of concentration must be in one of the six areas approved for the PhD Degree in the College (Civil Engineering, Computer Science, Electrical Engineering, Industrial Engineering, Materials Science, or Mechanical Engineering). The minor is normally in another area offered in the College or in the physical science, mathematics or management sciences. Consideration of any other area as a minor requires the prior approval of the GPSC.

A **minimum of 26 credits**, excluding dissertation, must be at the 700 level or higher.

A **minimum of 33 credits**, including dissertation, must be completed while enrolled at UWM in the PhD Degree program.

A **maximum of 33 credits** can be considered for transfer credits from prior graduate work including a master's degree earned at UWM or elsewhere provided the course work taken falls within the appropriate areas. Students entering the program without a prior applicable master's degree will be limited to a total maximum transfer of 9 credits for courses taken elsewhere.

The Doctoral Preliminary Examination must be taken prior to the completion of 48 credits.

**Independent Study** (maximum of 6 credits) must have prior approval of the Associate Dean before enrollment.

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JAN2013update/changes effective Spring2014