Prerequisite Requirements for Graduate Degrees in Civil Engineering

Name _______________________________ Degree/Discipline _______________________________

Note: Applicants must show evidence of completed prerequisites as the example below:

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1. Master of Science or PhD in Civil Engineering → Mark courses taken here AND specialty area list.

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1.1 Construction Engineering and Management
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1.2 Hydrologic, Environmental and Sustainability
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1.3 Geographic Information Systems and Geomatics
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1.4 Geotechnical
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1.6 Structural
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1.7 Transportation
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* EASPhD students must satisfy all pre-requisites specified by their advisor, which will range between the CE PhD requirements for a student’s speciality area and the MEng requirements of that area if offered. See other side.
2. Master of Engineering → Mark courses already taken in relevant specialty area list.

*All courses listed on previous page DO NOT apply to Masters of Engineering students.*

Note: Applicants must show evidence of completed prerequisites as the example below:

___X___ Calculus II (MATH-2411 or equivalent) MATH 2348 and grade earned (or equivalent course taken at your university – university name should be noted if prerequisites span more than 1 transcript)

2.1 Construction Engineering and Management
- Calculus I (MATH-1401 or equivalent)
- Calculus II (MATH-2411 or equivalent) or Autocad (CVEN 1025 or equivalent)
- Engineering Statistics (CVEN-3611 or equivalent) or Probability and Statistics (MATH-3800)
- Physics I (PHYS-2311 or equivalent)
- Statics (CVEN-2121 or equivalent)
  or (ARCH 3340 Theory of Structures I + ARCH 4340 Theory of Structures II or equivalent)
- Engineering Surveying (CVEN-2212 or equivalent)
- Computer Programming (ENGR-1100 or equivalent)

2.2 Geographic Information Systems and Geomatics
- Calculus I (MATH 1401 or equivalent)
- Probability & Statistics (MATH 3800 or equivalent; CVEN 5611 will satisfy requirement)
- Plane Surveying (CVEN 2212 or equivalent; CVEN 5391 will satisfy requirement)
- Two basic science courses (e.g., Physics, Chemistry, Biology, Ecology, Physiology)
- Computer Programming (ENGR-1100 or equivalent or other programming courses)

2.3 Hydrologic, Environmental and Sustainability
- Calculus I (MATH-1401 or equivalent)
- Calculus II (MATH-2411 or equivalent)
- Engineering Statistics (CVEN-3611 or equivalent) or Probability and Statistics (MATH-3800)
- Physics I (PHYS-2311 or equivalent)
- Chemistry or Biology or Ecology
- Computer Programming (ENGR-1100 or equivalent)

2.4 Transportation Systems
- Calculus I (MATH 1401 or equivalent)
- Probability & Statistics (MATH 3800 or equivalent; CVEN 5611 will satisfy requirement)
- Engineering Economy (CVEN 4077 or equivalent or other economics courses)
- Two basic science courses (e.g., Physics, Chemistry, Biology, Ecology, Physiology)
- Computer Programming (ENGR-1100 or equivalent or other programming courses)

* EASPhD students must satisfy all pre-requisites specified by their advisor, which will range between the CE PhD requirements for a student’s specialty area and the MEng requirements of that area, if offered. It depends on a student’s intended curriculum and dissertation emphasis, career goals, and plans to pass the FE and PE exams. Please speak directly with your intended advisor.

NOTES:

1. Suggested course numbers are provided, but prerequisites may be fulfilled with equivalent courses taken at the undergraduate or graduate levels, either at CU Denver or at an equivalent institution.
2. Applicants with more than 5 deficiencies will not be admitted except for rare instances.
3. After admission, a student may file a petition to the department to have a prerequisite waived.
4. A student may complete no more than 9 credit hours of graduate work before completing all prerequisites.
5. Fulfillment of prerequisites, which requires a grade of C- or better, will be checked by the student’s research advisor when the student applies for admission to candidacy prior to graduation.