TRANSPORTATION AND LOGISTICS MINOR

Students are required to complete 7 courses, of which 1 is a required course. The other 6 courses must include at least 3 core courses, at least 2 of which must be outside the school in which the student is majoring.

Students in the McCormick School may double-count a maximum of 2 courses from their major program toward the minor. Students from other schools are not allowed to double-count courses that are part of their major but may count courses that fulfill related course, distribution, or social science and humanities requirements.

Prerequisites

In preparation for pursuing the minor, students should take courses in calculus and in probability and statistics.

Minor Requirements (7 units)

- TRANS 310-0 Seminar in Transportation and Logistics
- 3 or more core courses
  - Chosen from the following:
    - Course Title
    - CIV_ENV 304-0 Civil and Environmental Engineering Systems Analysis
    - CIV_ENV 371-0 Introduction to Transportation Planning and Analysis
    - CIV_ENV 376-0 Transportation System Operations
    - ECON 310-1 Microeconomics
    - ECON 355-0 Transportation Economics and Public Policy
    - IEMS 310-0 Operations Research
    - IEMS 313-0 Foundations of Optimization
    - IEMS 381-0 Supply Chain Modeling and Analysis
    - IEMS 383-0 Service Operations Management
  - 2 must be outside the student's major program.
  - No substitutions are allowed.
- 3 additional courses selected from core courses or approved electives:
  - Approved electives include the following:
    - Course Title
    - CIV_ENV 205-0 Economics and Finance for Engineers
    - CIV_ENV 368-0 Sustainability: The City
    - CIV_ENV 387-0 Design of Sustainable Urban Developments
    - ECON 309-0 Public Finance
    - ECON 337-0 Economics of State and Local Governments
    - ECON 349-0 Industrial Economics
    - ECON 350-0 Monopoly Competition & Public Policy
    - ECON 354-0 Issues in Urban and Regional Economics
    - ECON 361-0 International Trade
    - ECON 371-0 Economics of Energy
    - ECON 372-0 Environmental Economics
    - or ECON 370-0 Environmental & Natural Resource Economics
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- 1 unit of approved independent study

Graduate Level Courses

- CIV_ENV 471-1 Transportation Systems Analysis 1
- CIV_ENV 471-2 Transportation Systems Analysis 2
- CIV_ENV 472-1 Transportation System Operations and Control 1: Urban Networks
- CIV_ENV 472-2 Transportation System Operations and Control 2: Scheduled Modes and Real-Time
- CIV_ENV 473-0 Survey methods, data and analysis
- CIV_ENV 480-1 Travel Demand Analysis & Forecasting 1
- CIV_ENV 480-2 Advances in Travel Demand Analysis and Forecasting
- CIV_ENV 482-0 Evaluation and Decision Making for Infrastructure Systems
- CIV_ENV 483-0 Infrastructure Systems Analysis
- CIV_ENV 484-0 Advanced Theories of Traffic Flow
- IEMS 481-0 Logistics

- At least 2 of the core or elective courses must be outside the school in which the student is registered.
- Students in the McCormick School may double-count a maximum of 2 courses from their major program toward the minor.
- Students from other schools are not allowed to double-count courses that are part of their major but may count courses that fulfill related course, distribution, or social science and humanities requirements.
- 4XX level courses require consent of the instructor and the Director of the Transportation and Logistics Program.

TRANS 310-0 Seminar in Transportation and Logistics (1 Unit) Yearlong senior seminar on the structure of the transportation and supply-chain industries and evaluation of relevant public policy. Students receive 1 credit in the spring quarter of their senior year.

TRANS 399-0 Independent Study (1 Unit) Advanced work chosen by mutual agreement with a faculty member. Only 1 unit may count toward the minor. Consent of faculty required.