Degree Requirements for Masters in Civil Engineering – Transportation Focus

Department of Civil & Architectural Engineering University of Wyoming

General Degree Requirements for Plan A – Thesis Option:

- 26 Course Credits,
- 4 Research Credits, and
- A minimum of 6 courses must be at the 5000 level

Course Requirements:

Transportation Courses – At least 5 courses must be from the following list:

| Number | Title | Credits |
|------------------------------------|--------------------------------------|---------|
| CE 5510 | Pavement Design | 3 |
| CE 5530 | Traffic Operations | 3 |
| CE 5555 | Geometric Design | 3 |
| CE 4920 | Engineering Optimization | 3 |
| CE 5540 | Traffic Controls (No longer offered) | 3 |
| CE 5560 | Traffic Safety | 3 |
| CE 5570 | Transportation Planning | 3 |
| CE 5575 | Intelligent Transportation Systems | 3 |
| CE 5585 | Pavement Mgmt. Systems | 3 |
| CE 5590 | Pavement Materials | 3 |
| CE 5700** | Network Analysis | 3 |
| CE 5700 | CE Problems I | 6 Max |
| CE 5700 | TLN Course | 3 |
| CE 5710 | Transportation Seminar | 2 Max |
| CE 5720 | CE Problems II | 6 Max |
| **Permanent course number pending. | | |

Statistics Courses – At least 1 course must be from the following list:

| Number | Title | Credits |
|--|---|---------|
| Stat 5015 | Regression Analysis | 3 |
| Stat 5025 | Design & Analysis of Experiments | 3 |
| Stat 5000 | Statistical Analysis for Research Workers | 3 |
| Stat 5045 | Categorical Data Analysis | 3 |
| Stat 5115 | Time Series Analysis and Forecasting | 3 |
| Stat 5070 | Statistical Methods for Social Sciences | 3 |
| Stat 5320 | Design & Analysis of Experiments II | 3 |
| Stat 5350 | Survey Construction and Analysis | 3 |
| Advisor may also approve a substitution for a class not on the list. | | |

Related Disciplines: At least 1 course must be from the following list:

| Number | Title | Credits |
|--|--|---------|
| Mgt 4410 | Human Resources Management | 3 |
| Mgt 4450 | Selection, Training and Development | 3 |
| Mgt 4650 | Total Quality Management | 3 |
| DSCI | Computer Applications in Decision Sciences | 3 |
| 4240 | | |
| Econ 4230 | Intermediate Econometric Theory | 3 |
| ECON | Game Theory | |
| 4350 | | |
| ECON | Public Finance | 3 |
| 4520 | | |
| ECON | State and Local Finance | 3 |
| 4530 | | |
| GEO 5330 | Land Use Planning | 3 |
| ES 4910 | Survey of Project Management | 3 |
| MATH | Mathematical Analysis I | 3 |
| 4200 | | |
| MATH | Mathematical Analysis II | 3 |
| 4205 | | |
| MATH | Introduction to Mathematical Modeling | 3 |
| 4300 | | |
| Advisor may also approve a substitution for a class not on the list. | | |

Civil Engineering Courses— The following courses count towards the required 26 credits:

| Number | Title | Credits |
|--|-----------------------------------|---------|
| CE 4610 | Foundation Engineering | 3 |
| CE 4630 | Geotechnical Engineering | 3 |
| CE 4800 | Hydrology | 3 |
| CE 5010 | Advanced Mechanics of Materials | 3 |
| CE 5230 | Advanced Materials | 3 |
| CE 5270 | Highway Bridge Engineering | 3 |
| CE 5620 | Earth Retaining & Slope Stability | 3 |
| CE 5820 | Design of Small Earth Dams | 3 |
| Advisor may also approve a substitution for a class not on the list. | | |

Other University of Wyoming Courses:

Advisor may also approve a substitution for a class not on any of the lists to count towards the required 26 credit hours.

General Degree Requirements for Plan B – Non-Thesis Option:

All degree requirements for Plan B are the same as Plan A except for the total number of credits, which is increased from 26 to 30 credits. Students receiving graduate assistantships are typically required to complete a Plan A.