Course information sheet

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| Course number and title: | **ENGR 440 Foundation Engineering** |
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|  Calendar reference:\* | ENGR 440 (3) **Foundation Engineering**Empirical and analytical approaches for foundation engineering. Topics include site investigation, lateral earth pressure, ground improvement, design of shallow and deep foundations, and retaining structures. [3-0-1\*]*Prerequisite:* ENGR 340. |
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| **CEAB course type:** | **Common core** | **Program compulsory** | **Option compulsory** | **Program elective** | **Other** |
|  | X |  |  |  |
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| **CEAB curriculum category content** (number of AU)**:** | **Math** | **Natural science** | **Complementary studies** | **Engineering science** | **Engineering design** |
|  |  |  | 30 | 10 |
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| **Professor-in-charge:** | Dwayne Tannant, P.Eng. [Ph.D., Professor] |
| **Other instructors:** |  |
| **Teaching assistants:**(number/total hours) | 2, XXX hours |
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| Instructional hours per week | Maximum number of students per section | Total number of lecture sections | Total number of lab/tutorial sections | Maximum number of students per lab/ tutorial section | Average grade | **Average failure rate** **(%)** |
| 3 | 57 | 1 | 2 | 39 | xxx | xxx |
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| Major topics:  | 1. Subsurface exploration and site investigation
2. Lateral earth pressure
3. Shallow foundations
4. Retaining walls
5. Braced excavations
6. Deep foundations - piles
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| Prescribed text(s): | 1. Fundamentals of Geotechnical Engineering, 3rd edition, by B.M. Das
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| Laboratory experience:  |  |

\*Explanatory notes on inconsistencies with calendar information (if applicable):