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 | | |  | | |  | |  |
|  | | | | | | | | | | | | | |
| **CEAB curriculum category content** (number of AU)**:** | | **Math** | | **Natural science** | | | **Complementary studies** | | | **Engineering science** | | **Engineering design** | |
|  | |  | | |  | | | 30 | | 10 | |
|  | | | | | | | | | | | | | |
| **Professor-in-charge:** | | Dwayne Tannant, P.Eng. [Ph.D., Professor] | | | | | | | | | | | |
| **Other instructors:** | |  | | | | | | | | | | | |
| **Teaching assistants:** (number/total hours) | | 2, XXX hours | | | | | | | | | | | |
|  | | | | | | | | | | | | | |
| 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 |
|  | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | |
|  | | | | | | | | | | | | | |
| Laboratory experience: | |  | | | | | | | | | | | |

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