

# ENGR 131 Course Schedule Fall 2023

## Week 1: 8/21-8/25

### Class 1A - Course Introduction

Assignment	Brightspace Location	Type	Points	Due
A01: Netiquette Tips & Academic Integrity	Content → Assignments	Individual	5	Class 1B
A02: CATME Team Formation Survey	Content → Assignments	Individual	10	11:59 PM 9/1/2023

### Class 1B - Data Analytics: Excel Basics & Data Literacy

Assignment	Brightspace Location	Type	Points	Due
PCV1: ENGR 131 Overview	Content → Pre-Class Videos	Video & Quiz	1	Class 1B
PCV2: Introduction to Excel	Content → Pre-Class Videos	Video & Quiz	1	Class 1B
PCV3: Formatting your Data for Technical Presentation	Content → Pre-Class Videos	Video & Quiz	1	Class 1B
PCV4: Calculations	Content → Pre-Class Videos	Video & Quiz	1	Class 1B
A03: Data Analytics – Calculations, Descriptive Statistics, & Charts	Content → Assignments	Individual	30	Class 2B

## Week 2: 8/28-9/1

### Class 2A - Data Analytics: Chart Selection & Descriptive Statistics

Assignment	Brightspace Location	Type	Points	Due
PCV5: Functions in Excel	Content → Pre-Class Videos	Video & Quiz	1	Class 2A
PCV6: Chart Selection	Content → Pre-Class Videos	Video & Quiz	1	Class 2A
PCV7: Formatting Charts	Content → Pre-Class Videos	Video & Quiz	1	Class 2A
PCV8: Descriptive Statistics	Content → Pre-Class Videos	Video & Quiz	1	Class 2A

### Class 2B - Solar Energy Viability: Intro & Criteria/Constraints

Assignment	Brightspace Location	Type	Points	Due
PCV9: Teams & Teaming	Content → Pre-Class Videos	Video & Quiz	1	Class 2B
PCV10: Solar Energy	Content → Pre-Class Videos	Video & Quiz	1	Class 2B
PCV11: Problem Scoping	Content → Pre-Class Videos	Video & Quiz	1	Class 2B
A04: Teaming: Code of Cooperation & Team Poster	Content → Assignments	Team	15	Class 3B
A05: Solar Energy Viability	Content → Assignments	Solar Team	50	Class 5A

### Week 3: 9/4-9/8

#### Class 3A - Solar Energy Viability: Economic & Environmental Analysis

Assignment	Brightspace Location	Type	Points	Due
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#### Class 3B - Solar Energy Viability: Information Literacy

Assignment	Brightspace Location	Type	Points	Due
PCV12: Information Literacy	Content → Pre-Class Videos	Video & Quiz	1	Class 3B
PCV13: Search Strategies & Boolean Operators	Content → Pre-Class Videos	Video & Quiz	1	Class 3B
CEQ1: Agricultural Engineering	Content → Career Exploration	Video & Quiz	1	11:59 PM on 9/10
CEQ2: Construction Engineering & Management	Content → Career Exploration	Video & Quiz	1	11:59 PM on 9/10
CEQ3: Biological Engineering	Content → Career Exploration	Video & Quiz	1	11:59 PM on 9/10

### Week 4: 9/11-9/15

#### Class 4A - Solar Energy Viability: Engineering Ethics

Assignment	Brightspace Location	Type	Points	Due
Activity - Practice Exam	Content → Exams → Practice Exam	Individual	5	End of Class

#### Class 4B - Solar Energy Viability: Finalize Project & Exam #1

Assignment	Brightspace Location	Type	Points	Due
CEQ4: Nuclear Engineering	Content → Career Exploration	Video & Quiz	1	11:59 PM on 9/17
CEQ5: Environmental & Ecological Engineering	Content → Career Exploration	Video & Quiz	1	11:59 PM on 9/17
CEQ6: Materials Engineering	Content → Career Exploration	Video & Quiz	1	11:59 PM on 9/17
Exam #1	Content → Exams	Gradescope Exam	100	End of Class 4B

### Week 5: 9/18-9/22

#### Class 5A - Data Analytics: Histograms

Assignment	Brightspace Location	Type	Points	Due
PCV14: Logical Formulas	Content → Pre-Class Videos	Video & Quiz	1	Class 5A
PCV15: Histograms	Content → Pre-Class Videos	Video & Quiz	1	Class 5A
A06: CATME Peer & Team Eval #1 - Solar Team (opens 9/21)	Content → Assignments	Individual	15	11:59 PM on 9/27
A07: Data Analytics – Histograms & Probability	Content → Assignments	Individual	30	Class 6A

**Class 5B - Data Analytics: Probability & Solar Project/Team Reflection**

Assignment	Brightspace Location	Type	Points	Due
PCV16: Probability	Content → Pre-Class Videos	Video & Quiz	1	Class 5B
CEQ7: Civil Engineering	Content → Career Exploration	Video & Quiz	1	11:59 PM on 9/24
CEQ8: Chemical Engineering	Content → Career Exploration	Video & Quiz	1	11:59 PM on 9/24
CEQ9: Mechanical Engineering	Content → Career Exploration	Video & Quiz	1	11:59 PM on 9/24
Activity Solar Project/Team Reflection	Content → Project 2 → Class 5B → In-Class Activities	Individual	10	End of Class 5B

**Week 6: 9/25-9/29****Class 6A - Taum Sauk Reservoir Project: Intro, Modeling, & Laminar Approach**

Assignment	Brightspace Location	Type	Points	Due
PCV17: CATME Teaming Dimensions	Content → Pre-Class Videos	Video & Quiz	1	Class 6A
PCV18: Introduction to Modeling	Content → Pre-Class Videos	Video & Quiz	1	Class 6A
PCV19: Numerical Methods	Content → Pre-Class Videos	Video & Quiz	1	Class 6A
A08: Teaming - Code of Cooperation & Team Poster #2	Content → Assignments	Team	15	Class 6B
A09: Taum Sauk Modeling	Content → Assignments	Team	20	Class 7B

**Class 6B - Taum Sauk Reservoir Project: Regression**

Assignment	Brightspace Location	Type	Points	Due
PCV20: Regression	Content → Pre-Class Videos	Video & Quiz	1	Class 6B
A10: Data Analytics – Regression	Content → Assignments	Individual	30	Class 8B
CEQ10: Aeronautical & Astronautical Engineering	Content → Career Exploration	Video & Quiz	1	11:59 PM on 10/1
CEQ11: Industrial Engineering	Content → Career Exploration	Video & Quiz	1	11:59 PM on 10/1
CEQ12: Biomedical Engineering	Content → Career Exploration	Video & Quiz	1	11:59 PM on 10/1

**Week 7: 10/2-10/6****Class 7A - Taum Sauk Reservoir Project: Flowrate & Power Calculation**

Assignment	Brightspace Location	Type	Points	Due
PCV21: Hydroelectric Power	Content → Pre-Class Videos	Video & Quiz	1	Class 7A
PCV22: Hydroelectric Power Calculation	Content → Pre-Class Videos	Video & Quiz	1	Class 7A

**Class 7B - Taum Sauk Reservoir Project: Engineering Errors**

Assignment	Brightspace Location	Type	Points	Due
PCV23: Slope and Y-Intercept	Content → Pre-Class Videos	Video & Quiz	1	Class 7B
CEQ13: Multidisciplinary/Interdisciplinary Engineering	Content → Career Exploration	Video & Quiz	1	11:59 PM on 10/8
CEQ14: Electrical & Computer Engineering	Content → Career Exploration	Video & Quiz	1	11:59 PM on 10/8
CEQ15: Environmental & Natural Resources Engineering	Content → Career Exploration	Video & Quiz	1	11:59 PM on 10/8
A11: Taum Sauk Power Calculation	Content → Assignments	Team	30	Class 9A

**Week 8: 10/9-10/13****Class 8A - Cancelled - October Break****Class 8B - Taum Sauk Reservoir Project: Finalize & Exam #2**

Assignment	Brightspace Location	Type	Points	Due
Exam #2 (Histograms & Probability)	Content → Exams	Gradescope Exam	100	End of Class 8B

**Week 9: 10/16-10/20****Class 9A - Taum Sauk Reflection & Design Project: Intro & Problem Scoping**

Assignment	Brightspace Location	Type	Points	Due
PCV24: Engineering Design	Content → Pre-Class Videos	Video & Quiz	1	Class 9A
PCV25: Problem Scoping	Content → Pre-Class Videos	Video & Quiz	1	Class 9A
A12: CATME Peer & Team Evaluation #2 (opens 10/19)	Content → Assignments	Individual	15	11:59 PM on 10/25
A13: Teaming: Code of Cooperation V2	Content → Assignments	Team	10	Class 9B
A14: Design: Problem Scoping	Content → Assignments	Team	25	Class 10A
Activity Taum Sauk Project/Team Reflection	Content → Project 3 → Class 9A → In-Class Activities	Individual	10	End of Class

**Class 9B - Design Project: Idea Generation**

Assignment	Brightspace Location	Type	Points	Due
PCV26: Idea Generation	Content → Pre-Class Videos	Video & Quiz	1	Class 9B
PCV27: Functional Decomposition	Content → Pre-Class Videos	Video & Quiz	1	Class 9B
PCV28: Exploring Prior Art	Content → Pre-Class Videos	Video & Quiz	1	Class 9B
A15: Design: Idea Generation	Content → Assignments	Team	25	Class 10A

## Week 10: 10/23-10/27

### Class 10A - Design Project: Thought Experiments & Prototyping

Assignment	Brightspace Location	Type	Points	Due
PCV29: Thought Experiments	Content → Pre-Class Videos	Video & Quiz	1	Class 10A

### Class 10B - Design Project: Prototyping & Testing (Exam #3 Review)

Assignment	Brightspace Location	Type	Points	Due
PCV30: Prototyping	Content → Pre-Class Videos	Video & Quiz	1	Class 10B
A16: Design: Prototyping, Testing, & WDM	Content → Assignments	Team	25	Class 12B

## Week 11: 10/30-11/3

### Class 11A - Design Project: Weighted Decision Matrix

Assignment	Brightspace Location	Type	Points	Due
PCV31: Weighted Decision Matrix	Content → Pre-Class Videos	Video & Quiz	1	Class 11A

### Class 11B - Design Project: WDM Review & Exam #3

Assignment	Brightspace Location	Type	Points	Due
Exam #3 (Regression/Modeling)	Content → Exams	Gradescope Exam	100	End of Class 11B

## Week 12: 11/6-11/10

### Class 12A - Design Project: Testing & Analysis

Assignment	Brightspace Location	Type	Points	Due
PCV32: Testing & Analysis	Content → Pre-Class Videos	Video & Quiz	1	Class 12A

### Class 12B - Design Project: Preliminary Presentation

Assignment	Brightspace Location	Type	Points	Due
A17: Design: Preliminary Presentation	Content → Assignments	Team	25	Class 13A

## Week 13: 11/13-11/17

### Class 13A - Design Project: Peer Review

Assignment	Brightspace Location	Type	Points	Due
A18: Design Project – Peer Review	Content → Assignments	Team	20	During class 13A

### Class 13B – Design Project: Reflection, Iteration & Re-design

Assignment	Brightspace Location	Type	Points	Due
A19: Design Project – Iteration #2	Content → Assignments	Team	15	Class 15A

**Week 14: 11/20-11/24**

Classes 14A &amp; 14B Cancelled - Thanksgiving Break

**Week 15: 11/27-12/1****Class 15A - Design Project: Detailed Design & Executive Summary**

Assignment	Brightspace Location	Type	Points	Due
A20: Design Project – Final Report	Content → Assignments	Team	60	Class 16A
A21: Design Project – Final Presentation	Content → Assignments	Team	35	Class 16A
A22: CATME Peer & Team Evaluation #3 (opens 11/30)	Content → Assignments	Individual	15	11:59 PM on 12/6

**Class 15B – Design Project: Exam #4**

Assignment	Brightspace Location	Type	Points	Due
Exam #4 (Weighted Decision Matrix)	Content → Exams	Gradescope Exam	100	End of Class 15B

**Week 16: 12/4-12/8****Class 16A - Design Project: Communicate your work**

Assignment	Brightspace Location	Type	Points	Due
A23: Career Exploration Reflection	Content → Assignments	Individual	10	16B
A24: EYM Attendance	Content → Assignments	Individual	16	Review in Grades
ICA 16A: EOS Feedback Survey	Content → Project 3 → Class 16A → In-Class Activity #2	Individual	Extra credit (3)	End of Class 16A

**Class 16B – Design Project Reflection & Course Wrap Up**

Assignment	Brightspace Location	Type	Points	Due
Activity Design Project/Team Reflection	Content → Project 3 → Class 16B → In-Class Activity	Individual	10	End of Class 16B
ICA 16B (CIE Survey verification)	Content → Project 3 → Class 16B → In-Class Activity	Individual	Extra credit (2)	End of Class 16B