

# ENGINEERING OUTREACH

UNIVERSITY OF IDAHO CATALOG | SPRING 2021

[eo.uidaho.edu](http://eo.uidaho.edu)



University  
of Idaho

**Professional Online Education**



# University of Idaho

## Engineering Outreach

Cover photo: University of Idaho

University of Idaho Catalog, Vol. 116, No. 5 — November 2020

The University of Idaho Catalog (USPS 651-360) is published five times per year. Published twice in April, once in June, October and November by the University of Idaho Office of the Registrar, Engineering Outreach, and Independent Study in Idaho, 875 Perimeter Dr. MS 4260, Moscow, Idaho 83844-4260.

Periodicals postage paid at Moscow, Idaho 83843. Postmaster: Send address changes to: University of Idaho, Engineering Outreach 875 Perimeter Dr. MS 1014, Moscow, ID 83844-1014.

### GET STARTED!

Visit our Get Started web page at [eo.uidaho.edu/get-started](http://eo.uidaho.edu/get-started) for a list of steps to take before classes begin. You will find detailed information about the topics listed below and more.

### CALENDAR

See the Engineering Outreach (EO) Calendar for important dates and deadlines for registration, graduation, course completion, and holidays at [eo.uidaho.edu/calendar](http://eo.uidaho.edu/calendar).

**Courses begin January 13, 2021.**

### ADMISSION

EO students must be admitted to the University of Idaho. Visit our website for information about admission options at [eo.uidaho.edu/admission](http://eo.uidaho.edu/admission).

### REGISTRATION

Students register using VandalWeb with their NetIDs and passwords. Students will need the course registration number (CRN) to successfully register. For detailed instructions, visit our website at [eo.uidaho.edu/registration](http://eo.uidaho.edu/registration).

### SPRING 2021 FEES

Students registering for courses delivered by EO pay a per credit fee. Fees include registration and online access but exclude textbooks and software. Payment in full is expected at the time of registration and must be received by the 10th day of class. The current fees can be found on our website at [eo.uidaho.edu/fees](http://eo.uidaho.edu/fees). Fees are subject to change by the Board of Regents of the University of Idaho; refer to our website for current fee information.

### COURSE DELIVERY

Course sessions are recorded in Engineering Outreach high-definition (HD) studio classrooms on the University of Idaho campus. Students can access their course sessions and materials in the EO Portal on the first day of class by using their NetIDs and passwords. For more information, visit our website at [eo.uidaho.edu/delivery](http://eo.uidaho.edu/delivery).

### EXAMS AND PROCTORS

Exams are distributed electronically to EO approved proctors. Proctor selection and approval must be completed by the first day of classes. For more information and for our preapproved proctor maps, visit our website at [eo.uidaho.edu/exam-process](http://eo.uidaho.edu/exam-process).

### COURSE COMPLETION

The EO course completion deadline for Spring 2021 is May 14, 2021 at 3 p.m. Pacific Time. Proctors will be able to access final exams for live courses during finals week. Proctors will have access to all exams for pre-encoded courses at the beginning of the semester. It is critical students coordinate closely with their proctors to ensure final exams reach EO by the deadline.

# ENGINEERING OUTREACH

Spring 2021 Courses

**SPRING TERM:**

January 13 – May 14 (16 weeks)

Registration Deadline: January 27

Visit [eo.uidaho.edu/courses](http://eo.uidaho.edu/courses) for the most current course information.

## CRN COURSE # TITLE

### BIOLOGICAL ENGINEERING

47668 BE 504-SF ST: Sustain Food-Energy-Water

### BUSINESS

46361 ACCT 582 Enterprise Accounting  
72384 MHR 513 Leadership and Organizational Behavior  
72373 OM 456 Quality Management

### CIVIL AND ENVIRONMENTAL ENGINEERING

62208 CE 431 Design of Water and Wastewater Systems I  
72801 CE 441 Reinforced Concrete Design  
75294 CE 444 Steel Design  
69847 CE 484 Engineering Law and Contracts  
71017 CE 511 Design of Water and Wastewater Systems I  
75295 CE 512 Advanced Topics in Waste Management and Treatment

### ELECTRICAL AND COMPUTER ENGINEERING

74104 ECE 320 Energy Systems I  
75356 ECE 329 BBackground Study in Energy Systems  
74105 ECE 349 Background Study in Digital Logic  
60237 ECE 410 Microelectronics II  
74430 ECE 415 Analog Integrated Circuit Design  
74329 ECE 419 Image Sensors and Systems  
56928 ECE 420 Energy Systems II  
62748 ECE 422 Power Systems Analysis  
56542 ECE 427 Power Electronics  
70682 ECE 430 Microwave and Millimeter Wave Circuits  
72330 ECE 462 Semiconductor Theory  
74111 ECE 465 Introduction to Microelectronics Fabrication  
75246 ECE 476 Digital Filtering  
70689 ECE 504-EM ST: Advanced Topics in Electromagnetics  
74431 ECE 515 Analog Integrated Circuit Design  
74328 ECE 516 Image Sensors and Systems  
66382 ECE 526 Protection of Power Systems II  
68618 ECE 529 Utility Applications of Power Electronics  
58934 ECE 562 Semiconductor Theory  
74122 ECE 565 Introduction to Microelectronics Fabrication

## CRN COURSE # TITLE

### ENGINEERING MANAGEMENT

61703 EM 510 Engineering Management Fundamentals  
71395 EM 582 Advanced Topics in Project Management

### ENGINEERING - GENERAL

68136 ENGR 428 Numerical Methods

### GEOLOGICAL ENGINEERING

69111 GEOE 407 Rock Mechanics

### MATHEMATICS

65255 MATH 123 Math in Modern Society  
61583 MATH 160 Survey of Calculus\*\*\*  
51928 MATH 170 Calculus I\*\*\*  
53279 MATH 175 Calculus II\*\*\*  
55190 MATH 275 Calculus III  
46380 MATH 310 Ordinary Differential Equations  
44402 MATH 330 Linear Algebra  
49771 MATH 390 Axiomatic Geometry  
46381 MATH 420 Complex Variables  
48089 MATH 426 Discrete Optimization  
68139 MATH 428 Numerical Methods  
68090 MATH 430 Advanced Linear Algebra  
46502 MATH 451 Probability Theory  
50177 MATH 452 Mathematical Statistics  
50243 MATH 461 Abstract Algebra I  
46389 MATH 462 Abstract Algebra II  
50087 MATH 471 Introduction to Analysis I  
46391 MATH 472 Introduction to Analysis II  
71734 MATH 480 Partial Differential Equations  
73460 MATH 521 Topology I  
73462 MATH 528 Differentiable Manifolds  
72387 MATH 529 Numerical Methods  
73466 MTHE 513 Problem Solving Through History  
74217 MTHE 516 Groups and Symmetry

### MATERIALS SCIENCE AND ENGINEERING

75258 MSE 464 Materials Physics and Engineering  
75357 MSE 512 Nuclear Components Inspection  
75259 MSE 564 Materials Physics and Engineering





# 2021

**CRN COURSE # TITLE**

**MECHANICAL ENGINEERING**

74301	ME 404-SD	ST: Sustainable Design and Manufacturing
72468	ME 412	Gas Dynamics
69141	ME 414	HVAC Systems
75302	ME 436	Sustainable Energy Sources and Systems
73442	ME 458	Finite Element Applications in Engineering
75257	ME 495	Mechanics in Design and Manufacturing
68199	ME 504-SD	ST: Sustainable Design and Manufacturing
74241	ME 504-SF	ST: Sustain Food-Energy-Water
60317	ME 514	HVAC Systems
46371	ME 540	Continuum Mechanics
73441	ME 558	Finite Element Applications in Engineering

**NUCLEAR ENGINEERING**

75352	NE 512	Nuclear Components Inspection
-------	--------	-------------------------------

**STATISTICS**

46400	STAT 251	Statistical Methods
48689	STAT 301	Probability and Statistics
72345	STAT 419	Intro to SAS/R Programming
63063	STAT 422	Sample Survey Methods
68091	STAT 431	Statistical Analysis
48093	STAT 451	Probability Theory
50422	STAT 452	Mathematical Statistics
63065	STAT 456	Quality Management
66305	STAT 550	Regression
69826	STAT 555	Statistical Ecology

**TECHNOLOGY MANAGEMENT**

75350	INDT 419	Industrial Sustainability Analysis
68140	TM 510	Technology Management Fundamentals
75351	TM 519	Industrial Sustainability Analysis

**WILDLIFE RESOURCES**

72372	WLF 555	Statistical Ecology
-------	---------	---------------------

JANUARY							FEBRUARY						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
					1	2		1	2	3	4	5	6
3	4	5	6	7	8	9	7	8	9	10	11	12	13
10	11	12	13	14	15	16	14	15	16	17	18	19	20
17	18	19	20	21	22	23	21	22	23	24	25	26	27
24	25	26	27	28	29	30	28						
31													
MARCH							APRIL						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
	1	2	3	4	5	6					1	2	3
7	8	9	10	11	12	13	4	5	6	7	8	9	10
14	15	16	17	18	19	20	11	12	13	14	15	16	17
21	22	23	24	25	26	27	18	19	20	21	22	23	24
28	29	30	31				25	26	27	28	29	30	
MAY							JUNE						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
						1			1	2	3	4	5
2	3	4	5	6	7	8	6	7	8	9	10	11	12
9	10	11	12	13	14	15	13	14	15	16	17	18	19
16	17	18	19	20	21	22	20	21	22	23	24	25	26
23	24	25	26	27	28	29	27	28	29	30	31		
30	31												
JULY							AUGUST						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3	1	2	3	4	5	6	7
4	5	6	7	8	9	10	8	9	10	11	12	13	14
11	12	13	14	15	16	17	15	16	17	18	19	20	21
18	19	20	21	22	23	24	22	23	24	25	26	27	28
25	26	27	28	29	30	31	29	30	31				
SEPTEMBER							OCTOBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
			1	2	3	4							1
5	6	7	8	9	10	11	2	3	4	5	6	7	8
12	13	14	15	16	17	18	9	10	11	12	13	14	15
19	20	21	22	23	24	25	16	17	18	19	20	21	22
26	27	28	29	30			23	24	25	26	27	28	29
							30	31					
NOVEMBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
	1	2	3	4	5	6				1	2	3	4
7	8	9	10	11	12	13	5	6	7	8	9	10	11
14	15	16	17	18	19	20	12	13	14	15	16	17	18
21	22	23	24	25	26	27	19	20	21	22	23	24	25
28	29	30	31				26	27	28	29	30	31	

■ = University holiday    ■ = Closed to the public

**Visit Our Website!**  
[eo.uidaho.edu](http://eo.uidaho.edu)





Engineering Outreach  
College of Engineering  
Janssen Engineering Building  
Rooms 31 and 37  
875 Perimeter Drive MS 1014  
Moscow, ID 83844-1014

### Contact Us

Phone: ..... (800) 824-2889  
Local: ..... (208) 885-6373  
Fax: ..... (208) 885-6155  
Email: ..... eo-support@uidaho.edu

### EO Portal for Course Materials and Exams

[eo.uidaho.edu/portal](http://eo.uidaho.edu/portal)

### Visit Our Website

[eo.uidaho.edu](http://eo.uidaho.edu)

### View a Sample Session

[eo.uidaho.edu/demo](http://eo.uidaho.edu/demo)



**Lifelong Learning Isn't Just for Our Kids**

## Quality Programs... Online Delivery!

- Engineering Outreach (EO) offers complete graduate degrees, academic certificates, and coursework that may be transferred for credit in engineering and related fields.
- EO is an established distance education program with over 40 years of experience delivering courses to off-campus students.
- The University of Idaho is regionally accredited by the Northwest Commission on Colleges and Universities (NWCCU) and is a member of the Association of Public Land Grant Universities (APLU).
- More than 95 percent of EO students complete their courses.
- EO is approved by the U.S. Department of Veterans Affairs (VA) for U.S. military students.
- U of I's engineering graduate programs are supported by undergraduate degree programs that are accredited by the Engineering Accreditation Commission of ABET: <http://www.abet.org>.
- Course sessions are encoded in high definition (HD) and are accessible online through a secure portal within two hours of being recorded on campus.
- More than 70 continually updated courses are delivered each fall and spring semester (fewer during the summer).
- EO offers personalized academic support services with a responsive staff committed to meeting the educational needs of our students.



## ENGINEERING OUTREACH

College of Engineering  
875 Perimeter Drive MS 1014  
Moscow, ID 83844-1014

Periodicals  
POSTAGE  
PAID  
at Moscow ID  
83843

# ENGINEERING OUTREACH

Achieve Your Professional Education Goals . . . Online!

[eo.uidaho.edu](http://eo.uidaho.edu)

## Master's Degree Programs

- Electrical Engineering  
- [ece-info@uidaho.edu](mailto:ece-info@uidaho.edu)
- Mechanical Engineering  
- [medept@uidaho.edu](mailto:medept@uidaho.edu)
- Civil Engineering  
- [cee@uidaho.edu](mailto:cee@uidaho.edu)
- Computer Science  
- [csinfo@uidaho.edu](mailto:csinfo@uidaho.edu)
- Computer Engineering  
- [ece-info@uidaho.edu](mailto:ece-info@uidaho.edu)
- Engineering Management  
- [enr-em@uidaho.edu](mailto:enr-em@uidaho.edu)
- Technology Management  
- [enr-tm@uidaho.edu](mailto:enr-tm@uidaho.edu)
- Geological Engineering  
- [cee@uidaho.edu](mailto:cee@uidaho.edu)
- Statistical Science  
- [mathstat@uidaho.edu](mailto:mathstat@uidaho.edu)
- Teaching Mathematics  
- [mathstat@uidaho.edu](mailto:mathstat@uidaho.edu)

## Non-Degree Coursework

- Professional Development
- STEM Coursework
- Transfer Credits

## Focus Areas

- Business/Accounting
- Nuclear Engineering

## Academic Certificates

- Power System Protection and Relaying
- Secure and Dependable Computing Systems
- Statistics