

University of Idaho - Idaho Falls

Proposed Three-Year Plan of Courses

Updated 10/31/2021

Check the course schedule for additional information and for web-based and video (EO) classes that may not be reflected on this list.

Actual course offerings each semester may vary. CHECK CURRENT SEMESTER COURSE SCHEDULE.

ALL courses must meet minimum enrollment requirements to be offered.

ACCOUNTING (ACCT)

Subject	Course	Title	Spring 2022	Sum 2022	Fall 2022	Spring 2023	Sum 2023	Fall 2023	Spring 2024	Sum 2024	Fall 2024
ACCT	582	Enterprise Accounting	EO			EO			EO		

BIOLOGICAL ENGINEERING (BE)

Subject	Course	Title	Spring 2022	Sum 2022	Fall 2022	Spring 2023	Sum 2023	Fall 2023	Spring 2024	Sum 2024	Fall 2024
BE	500	Master's Research & Thesis	X	X	X	X	X	X	X	X	X
BE	599	Research	X	X	X	X	X	X	X	X	X

CHEMICAL ENGINEERING (CHE)

Subject	Course	Title	Spring 2022	Sum 2022	Fall 2022	Spring 2023	Sum 2023	Fall 2023	Spring 2024	Sum 2024	Fall 2024
CHE	223	Material & Energy Balances									
CHE	500	Master's Research & Thesis	X	X	X	X	X	X	X	X	X
CHE	501	Seminar			X						X
CHE	504	Advanced Characterization Techniques						X			
CHE	515	Transport Phenomena (ME)	X			X			X		
CHE	517	Advanced characterization techniques			X			X			X
CHE	527	Thermodynamics (2 yr rotation, Spring semester)									
CHE	529	Chemical Engineering Kinetics (Fall semester)			X			X			X
CHE	536	Electrochemical Engineering (2 yr rotation, Spring semester)				X					
CHE	541	Chemical Engineering Analysis I (each Spring semester)	X			X			X		
CHE	578	Treatment of Hazardous Chemical Waste									
CHE	579	Hazardous Waste Site Remediation Design (2 yr rotation, Fall semester)									
CHE	581	Haz Waste Mgmt Seminar (students take ENVS 501)									
CHE	582	Nuclear Fuel Waste & Management (NE)			X						X
CHE	590	Hydrogen Energy Systems (ME) (2 yr rotation, Fall semester)									
CHE	600	Doctoral Research & Dissertation	X	X	X	X	X	X	X	X	X

CHEMISTRY (CHEM)

Subject	Course	Title	Spring 2022	Sum 2022	Fall 2022	Spring 2023	Sum 2023	Fall 2023	Spring 2024	Sum 2024	Fall 2024
CHEM	305	Physical Chemistry									
CHEM	463	Inorganic Chemistry									
CHEM	468	Organometallic Chemistry									
CHEM	473	Intermediate Organic Chemistry									
CHEM	500	Master's Research & Thesis	X	X	X	X	X	X	X	X	X
CHEM	511	Seminar	X		X	X		X	X		X
CHEM	550	Radioanalytical Chemistry		X							
CHEM	568	Organometallic Chemistry									
CHEM	590	Doctoral Research Proposal	X		X	X		X	X		X
CHEM	600	Doctoral Research & Dissertation	X	X	X	X	X	X	X	X	X

Under Construction - Check Schedule for updates COMPUTER SCIENCE (CS) - additional courses offered through Engineering Outreach

Subject	Course	Title	Spring 2022	Sum 2022	Fall 2022	Spring 2023	Sum 2023	Fall 2023	Spring 2024	Sum 2024	Fall 2024
CS	404	Digital Image Processing	X	X						X	
CS	404	Convex Optimization					X				
CS	538	Network Security	X			X			X		
CS	474	Deep Learning	X		X			X			X
CS	477	Python for Machine Learning	X			X			X		
CS	500	Master's Research & Thesis	X	X	X	X	X	X	X	X	X
CS	501	Seminar	X		X	X		X	X		X
CS	504	Special Topics	X		X	X		X	X		X
CS	520	Data Communication Systems			X			X			X
CS	538	Network Security	X			X			X		
CS	577	Python for Machine Learning	X			X			X		
CS	580	Graduate Project	X	X	X	X	X	X	X	X	X
CS	600	Doctoral Research & Dissertation	X	X	X	X	X	X	X	X	X

CYBERSECURITY (CYB)

Subject	Course	Title	Spring 2022	Sum 2022	Fall 2022	Spring 2023	Sum 2023	Fall 2023	Spring 2024	Sum 2024	Fall 2024
CYB	536	Advanced Information Assurance Concepts	X			X			X		
ELECTRICAL & COMPUTER ENGINEERING (ECE) - additional courses offered through Engineering Outreach											
Subject	Course	Title	Spring 2022	Sum 2022	Fall 2022	Spring 2023	Sum 2023	Fall 2023	Spring 2024	Sum 2024	Fall 2024
ECE	504	Industrial Controls	X								
ECE	471	Control Systems			X						
ECE	572	Linear Systems Theory			X						
ECE	521	Power System Stability				X					
ECE	471	Control Systems						X			
ECE	504	Industrial Controls						X			
ECE	588	Advanced Frequency Domain Control							X		
ECE	471	Control Systems									X
ECE	571	Estimation Theory for Signal Processing, Communications and Control									X
ECE	500	Master's Research & Thesis	X	X	X	X	X	X	X	X	X
ECE	600	Doctoral Research & Dissertation	X	X	X	X	X	X	X	X	X
ENGINEERING MANAGEMENT (EM) - additional courses offered through Engineering Outreach											
Subject	Course	Title	Spring 2022	Sum 2022	Fall 2022	Spring 2023	Sum 2023	Fall 2023	Spring 2024	Sum 2024	Fall 2024
EM	510	Engineering & Technology Management	X			X			X		
EM	513	Leadership in Engineering Management			X			X			X
EM	550	Process Improvement Methods			X						
EM	560	Project Risk Management		X			X			X	
EM	570	Global Product Development			X			X			X
EM	580	Technical Project Management			X			X			X
EM	582	Adv Topics in Project Management (TM)	X			X			X		
EM	596	Capstone Integration	X	X	X	X	X	X	X	X	X
EM	599	Research:Master's Project	X	X	X	X	X	X	X	X	X
ENVIRONMENTAL SCIENCE (ENVS)											
Subject	Course	Title	Spring 2022	Sum 2022	Fall 2022	Spring 2023	Sum 2023	Fall 2023	Spring 2024	Sum 2024	Fall 2024
ENVS	101	Intro to Environmental Science (2 yr rotation, Fall semester)									
ENVS	102	Field Activities in Environmental Science (2 yr rotation, Fall semester)									
ENVS	225	International Environmental Issues Seminar	X								
ENVS	404	Special topic									
ENVS	415	Life Cycle Assessment (2 yr rotation, Spring semester)									
ENVS	428	Pollution Prevention (Spring semester)	X			X					
ENVS	429	Environmental Auditing	X								
ENVS	479	Intro to Environmental Regs (Fall semester)			X			X			X
ENVS	482	Natural Resource Policy & Law (2 yr rotation, Spring semester)				X					
Subject	Course	Title	Spring 2022	Sum 2022	Fall 2022	Spring 2023	Sum 2023	Fall 2023	Spring 2024	Sum 2024	Fall 2024
ENVS	483	Water & Energy Systems									
ENVS	484	History of Energy (Fall semester)			X						X
ENVS	485	Energy Efficiency and Conservation (Fall semester)			X			X			X
ENVS	497	Senior Research & Thesis	X	X	X	X	X	X	X	X	X
ENVS	498	Internship	X	X	X	X	X	X	X	X	X
ENVS	500	Master's Research & Thesis	X	X	X	X	X	X	X	X	X
ENVS	501	Seminar	X		X	X		X	X		X
ENVS	504	Special topic	X			X			X		
ENVS	515	Life Cycle Assessment (2 yr rotation, Spring semester)				X					
ENVS	548	Drinking Water and Human Health	X			X			X		
ENVS	552	Environmental Philosophy	X			X			X		
ENVS	577	Law, Ethics and the Environment				X			X		
ENVS	579	Intro to Environmental Regs (Fall semester)									
ENVS	581	Applications of Environmental Regulations									
ENVS	582	Natural Resource Policy & Law (2 yr rotation, Spring semester)									
ENVS	599	Research	X	X	X	X	X	X	X	X	X
ENVS	600	Doctoral Research & Dissertation	X	X	X	X	X	X	X	X	X
INDUSTRIAL TECHNOLOGY (INDT)											
Subject	Course	Title	Spring 2022	Sum 2022	Fall 2022	Spring 2023	Sum 2023	Fall 2023	Spring 2024	Sum 2024	Fall 2024
INDT	310	Introduction to Industrial Technology (Fall semester)			X			X			X
INDT	311	Problems in Industrial Technology (Spring semester)									
INDT	332	Intro to Analog and Digital Electronics (Spring semester)				X					
INDT	333	Industrial Electronics and Control Systems ((Fall semester)			X			X			X
INDT	350	Introduction to Materials Science (Fall semester)			X			X			X
INDT	353	Manufacturing Systems (Fall semester)	X			X			X		

362	Behavior Based Safety (Fall semester)				X			X			X
INDT	364	Hazardous Materials (every 4th semester)			X						X
INDT	408	Fire Safety Hazard Analysis (Fire Cert)							X		
INDT	409	Fire Suppression/Design/Detection (Fire Cert)					X				
INDT	410	Fire Loss Control (Fire Cert)		X				X			
INDT	411	Facility Fire Mangament (Fire Cert)					X				
INDT	412	Fire Structural Design (Fire Cert)		X				X			
INDT	413	Community Planning & Design (Fire Cert)							X		
INDT	415	Impact of Technology on Society (Spring semester)				X					
INDT	419	Industrial sustainability analysis	X			X			X		
INDT	434	Power Generation and Distribution (Spring semester)	X			X			X		
INDT	435	Network Administration (every 4th semester)				X					X
INDT	442	Systems Integration (Spring and Summer semester)	X	X		X	X		X	X	
INDT	443	Government Contract Law (Fall semester)			X			X			X
INDT	444	Quality Assurance Organization & Management (every 4th semester)				X			X		
INDT	446	Labor Law (Spring semester)				X					
INDT	448	Project and Program Management (every 4th semester)	X				X				X
INDT	453	Computer Integrated and Robotics Manufacturing (Spring semester)	X			X			X		
INDT	457	Lean to Green Sustainable Technology (every other Fall)									
INDT	462	Industrial Safety (Spring semester)				X			X		
INDT	463	Industrial Transportation Safety									
INDT	464	Human Performance Fundamentals (Fall semester)			X			X			X
INDT	465	Construction Safety (every 4th semester)				X				X	
Subject	Course	Title	Spring 2022	Sum 2022	Fall 2022	Spring 2023	Sum 2023	Fall 2023	Spring 2024	Sum 2024	Fall 2024
INDT	466	Human Performance Field Investigation (Spring semester)	X			X			X		
INDT	468	Applied Research in Human Performance									
INDT	469	Safety Management through LEAN Engineering Methods)									
INDT	470	Homeland Security (Fall semester)			X			X			X
INDT	472	National Incident Mgmt Systems (Summer semester)		X			X				
INDT	473	Fundamentals of Unmanned Aerial Systems	X								
INDT	484	Industrial Technology Capstone I (Fall semester)	X		X			X			X
INDT	485	Industrial Technology Capstone II (Spring semester)	X			X			X		

MECHANICAL ENGINEERING (ME) - additional courses offered through Engineering Outreach

Subject	Course	Title	Spring 2022	Sum 2022	Fall 2022	Spring 2023	Sum 2023	Fall 2023	Spring 2024	Sum 2024	Fall 2024
ME	481	Control Systems			X			X			X
ME	500	Master's Research & Thesis	X	X	X	X	X	X	X	X	X
ME	501	Seminar	X	X	X	X	X	X	X	X	X
ME	502	Manufacturing Systems	X			X			X		
ME	504	Sustain Food-Energy-Water	X			X			X		
ME	525	Advanced heat transfer	X								
ME	527	Thermodynamics			X			X			X
ME	544	Conduction Heat Transfer			X			X			X
ME	546	Convective Heat Transfer				X					
ME	547	Radiative heat transfer						X			
ME	599	Master's Non-thesis Research	X	X	X	X	X	X	X	X	X
ME	600	Doctoral Research & Dissertation	X	X	X	X	X	X	X	X	X

MATERIALS SCIENCE & ENGINEERING (MSE)

Subject	Course	Title	Spring 2022	Sum 2022	Fall 2022	Spring 2023	Last Semester is Spring 2023				
MSE	437	Radiation Effects on Materials (NE)	X			X					
MSE	438	Fundamentals of Nuclear Materials (NE)			X						
MSE	500	Master's Research & Thesis	X	X	X	X					
MSE	537	Radiation Effects on Materials (NE)	X			X					
MSE	538	Fundamentals of Nuclear Materials (NE)			X						
MSE	550	Nuclear Reactor Fuels (NE)			X						
MSE	600	Doctoral Research & Dissertation	X	X	X	X					

NUCLEAR ENGINEERING (NE)

Subject	Course	Title	Spring 2022	Sum 2022	Fall 2022	Spring 2023	Sum 2023	Fall 2023	Spring 2024	Sum 2024	Fall 2024
NE	437	Radiation Effects on Materials (MSE)	X			X			X		
NE	438	Fundamentals of Nuclear Materials (MSE)			X			X			X
NE	450	Principles of Nuclear Engineering			X			X			X
NE	500	Master's Research & Thesis	X	X	X	X	X	X	X	X	X
NE	504	Special topic	X			X			X		
NE	513	Nuclear Security Science			X						X
NE	514	Nuclear Safety (TM)					X				

