

COLLEGE OF BUSINESS

Entrepreneurship Minor



27 total credits required

All minor courses are 4 credits each unless otherwise noted []. *Courses, pre-reqs and availability are subject to change.

Required Minor Courses (19-24 credits)

ECON 201 (4) or AEC 250 (3) or ENGR 390 (3). Microeconomics
 BA 315. Accounting for Decision Making
 BA 260. Introduction to Entrepreneurship or BA 167 & 168 (6)
 BA 464. New Venture Financing
 BA 363. Technology and Innovation Management

Existing Prereq (check with advisor)

MTH 111
 Soph
 Soph
 Senior
 BA 260, Junior

Electives (3-8 credits)

Business electives are available to any Entrepreneurship minor student if pre-req is met; will need override from COB Advising Office. For all other electives, students must be in that major to access and will need to check with major advisor if allowed to double count.

Business Electives (credits)

BA 354. Managing Ethics and Corporate Social Responsibility (4)	Senior
BA 362. Social Entrepreneurship and Social Initiatives (4)	Junior
BA 365. Family Business Management (4)	Junior
BA 367. Launch Academy (3)	Junior
BA 458. Innovation and New Product Development (4)	BA 390, Senior
BA 460. Venture Management (4)	BA 260, BA 351, BA 390, Senior
BA 467. New Venture Laboratory (4)	BA 357, BA 458, Senior
BA 468. Technology Commercialization (4)	BA 363, Senior

Engineering Electives - Must be a student in the corresponding major to enroll

Biological & Ecological Engineering

BEE 221. Fundamentals of Ecological Engineering (3)	BI 211 [C] or BI 211H [C]) and (MTH 256 [C] or MTH 256H [C])
BEE 468. Bioremediation Engineering	
BEE 469. Ecological Engineering Design I	BEE 322 [C] and (ENGR 391 or ENGR 391H)
BEE 470. Ecological Engineering Design II	
BEE 473. Introduction to Food Engineering Process Design (3)	BEE 472 or BEE 572

Biological Engineering

BIOE 420. Social Justice, Ethics and Engineering (3)	
BIOE 470. Regulation of Drugs and Medical Devices (2)	
BIOE 490. Bioengineering Process Design	BIOE 457
BIOE 491. Bioengineering Product Design	BIOE 490 [C]
BIOE 492. Bioengineering Capstone Design	BIOE 491 [C]

Chemical Engineering

CHE 320. Safety, Engineering Ethics and Professionalism (3)	
CHE 431. Chemical Plant Design I (3)	CHE 312 [C] and CHE 411 [C] and CHE 443 [C]
CHE 432. Chemical Plant Design II (3)	CHE 431 [C]
CHE 443. Chemical Reaction Engineering	CHE 312 [C] and (CHE 333 [C] or CHE 333H [C])
CHE 445. Polymer Engineering and Science	CH 334 and CH 335 and CH 336 or equiv and (MTH 256 or MTH 256H)

Construction Engineering Management

CEM 341 Construction Estimating I	
CEM 342 Construction Estimating II	CEM 341 with C or better
CEM 343 Construction Planning and Scheduling	CEM 342 (may be taken concurrently) with C or better
CEM 431. Obtaining Construction Contracts	CEM 341 with C or better
CEM 432 Construction Project Planning	CEM 341 with C or better
CEM 441. Heavy Civil Construction Management	FE 315 with C or better or CE 372 with C or better
CEM 442. Building Construction Management	
CEM 443. Project Management for Construction	CEM 341 with C or better and CEM 343 [C]

Civil Engineering

CCE 201. Civil and Construction Engineering Graphics and Design (3)	
CE 202. Civil Engineering: Geospatial Information and GIS (3)	CE 201 [C] or CCE 201 [C] or ENGR 248 [C]
CE 418. Civil Engineering Professional Practice (3)	CE 382 [C] and CE 313 [C] and (CE 372 [C] or FE 315 [C]
CE 420. Engineering Planning	
CE 424. Contracts and Specifications	
CE 428. Project Management for Civil Engineers	

WR 327. Technical Writing (3)	
ST 314. Introduction to Statistics for Engineers (3)	
Computer Science	
CS 295. Website Management	CS 195 [C]
CS 352. Introduction to Usability Engineering	CS 151 [C] or CS 161 [C] or CS 165 [C] or CS 295 [C] or ECE 151 [C]
CS 361 Software Engineering I	CS 261 [C]
CS 362 Software Engineering II	CS 261 [C]
CS 391. Social and Ethical Issues in Computer Science (3)	CS 101
CS 458. Introduction to Information Visualization	CS 361 [C]
CS 461. Senior Software Engineering Project I (3)	CS 361 [C]
CS 462. Senior Software Engineering Project II (3)	CS 362 [C] and CS 461 [C]
CS 463. Senior Software Engineering Project (2)	CS 462 [C]
CS 464. Open Source Software	CS 261 [C] or CS 361 [C]
CS 468. Inclusive Design HCI	CS 352 [C]
Electrical Engineering & Computer Science	
ECE 341. Junior Design I (3)	CS 261* [C] and ENGR 203 [C]
ECE 342. Junior Design II (3)	ECE 341 [C]
ECE 441. Engineering Design Project (3)	ECE 322 [C] and ECE 351 [C]
ECE 442. Engineering Design Project (3)	ECE 441 [C]
ECE 443. Engineering Design Project (3)	ECE 442 [C]
Engineering Science	
ENGR 221. The Science, Engineering, and Soc Impact of Nanotechnology (3)	
ENGR 248. Engineering Graphics and 3-D Modeling (3)	
ENGR 350. Sustainable Engineering (3)	
ENGR 352. Creative Collaboration: Designing and Building (3)	
ENGR 390. Engineering Economy (3)	
ENGR 391. Engineering Economics & Project Management (3)	
ENGR 421. Applied Robotics	
Humanitarian Engineering Science & Tech	
HEST 241. Household Energy in Guatemala: Background (1)	
HEST 242. Household Energy in Guatemala: Applications (3)	
HEST 310. Intro to Community Engagement & Community-Based Design (3)	
HEST 320. Engineering for Global Health Solutions (3)	
HEST 411. Engr Design for Emergency & Low-Resource Environments (3)	
Industrial Engineering	
IE 212. Computational Methods for Industrial Engineering	ENGR 112 [C]
IE 255 Introductory Quantitative Analysis of Industrial and Mfr. Systems (3)	MTH 252 [C]
IE 285. Introduction to Industrial and Mfr. Engineering (3)	
IE 355. Statistical Quality Control	IE 255 [C] or ST 314 [C]
IE 356. Experimental Design for Industrial Processes	IE 255 [C] or ST 314 [C]
IE 366. Work Systems Engineering	IE 255 [C] or ST 314 [C]
IE 367. Production Planning and Control	IE 255 [C] or ST 314 [C]
IE 368. Facility Design and Operations Management	IE 255 [C] or ST 314 [C]
IE 380. The Responsible Engineer (3)	
IE 415. Simulation and Decision Support Systems	IE 255 [C] or ST 314 [C]
IE 425. Industrial Systems Optimization	IE 255 [C] or ST 314 [C] and MTH 306 [C] or MTH 341 [C]
IE 426. Stochastic Models of Industrial Systems	IE 255 [C] or ST 314 [C] and IE 425 [C]
IE 470. Management Systems Engineering	
IE 471. Project Management in Engineering (3)	
IE 475. Advanced Manufacturing Costing Techniques (3)	ENGR 390 [C]
Manufacturing Engineering	
MFGE 285. Introduction to Indus and Manufacturing Engineering (3)	
MFGE 436. Lean Manufacturing Systems Engineering	
Material Science	
MATS 322. Mechanical properties of materials (3)	(ENGR 213 with C or better or ENGR 213H with C or better) and (ENGR 321 [C] or ENGR 321H [C] or MATS 321 [C])
MATS 445. Welding metallurgy	(MATS 321 with C or better or ENGR 321 with C or better or ENGR 321H with C or better) or MATS 570 with C or better
MATS 455. Experimental techniques in material science	(ENGR 321 with C or better or ENGR 321H with C or better)
MATS 478. Thin film materials characterization and properties	(ME 311 with C or better or ME 311H with C or better) and (ENGR 321 [C] or ENGR 321H [C] or MATS 321 [C]) and (ENGR 322 [C] or MATS 322 [C])
Mechanical Engineering	
ME 373. Mechanical Engineering Methods (3)	ENGR 112 [C] or ENGR 112H [C] and MTH 256 [C] or MTH 256H [C]
ME 382. Introduction to Design	ENGR 248 [C] and ME 250* [C]
ME 383. Mechanical Component Design	ME 316 [C] and ME 250* [C]
ME 412. Design of Mechanisms	(ME 317 [C] or ME 317H [C]) and ME 383 [C]

ME 413. Computer-Aided Design and Manufacturing

ME 497. MIME Capstone Design

Nuclear Science & Engineering

NSE 474. Nuclear Systems Design I

NSE 475. Nuclear Systems Design II

Energy Systems Engineering

ESE 497. MIME Capstone Design

ESE 498. MIME Capstone Design

Robotics

ROB 421 Applied Robotics

ME 382 [C] or ME 382H [C] or IE 366 [C]

(NSE 452 [C] or NE 452 [C]) and (NSE 474 [C] or NE 474 [C] or RHP 474 [C])

ENGR 390 with C or better or BA 360 with C or better) and IE 425 [C] and (ME 312 [C] or ME 312H [C]) and (ME 331 [C] or ME 331H [C]) and ESE 355 [C] and ESE 360 [C] and WR 327 [C] and (ST 314 [C] or ST 314H [C]

ESE 497 with C or better or IE 497 with C or better or ME 497 with C or better

Forestry Electives - Available only if a Forestry major

Wood Science

WSE 250. Computer-aided Design (3)

WSE 350. Secondary Product Designs and Manufacturing (3)

WSE 351. Advanced CAD: Computer-aided Design (3)

WSE 406. Projects (1-16 depending on approval)

WSE 450. Entrepreneurial Product Development I (3)

WSE 451. Entrepreneurial Product Development II (3)

WSE 455. Industrial Marketing in the Forest Sector

WSE 250

WSE 250

WSE 250, WSE 455

WSE 250, WSE 455

Forest Engineering

FE 312. Forestry Field School (2)

FE 370. Harvesting Operations

FE 371. Harvesting Process Engineering

FE 440 Forest Operations Analysis

FE (FOR) 459. Forest Management Planning and Design I

FE 460 Forest Operations Regulations and Policy Issues (3)

FE (FOR) 469 Forest Management Planning and Design II

FE 471 Harvesting Management (3)

FE 480 Forest Engineering Practice and Professionalism (1)

ENGR 211 [C] and FE 102 [C] and COREQS: FE 208 and FE 357

FE 102 [C-] and (FE 370 [C-] or FE 371 [C-]) and basic statistics

FE 457 or FOR 457 and senior standing or departmental approval required.

FE 459 [C] or FOR 459 [C]

FE 371 and FE 470

Public Health and Human Sciences - Available only if a PHHS major

Public Health

H 210 Introduction to the Healthcare System (3)

H 225 Social and individual Health Determinants

H 250 Introduction to Healthcare Management (3)

H 319 Introduction to Health Policy (3)

H 320 Introduction to Human Disease (3)

H 432 Economic Issues in Health and Medical Care (3)

H 436 Advanced Topics in Healthcare Management (3)

H 457 Financial Management of Healthcare Organizations (3)

H 458 Reimbursement Mechanisms (3)

H 468 Financing and Administration of Long-term Care (3)

H 476 Planning and Evaluating Health Promotion Programs

H 489 Emergency and Disaster Management (3)

H 495 Design for Environment, Safety, and Health (3)

Human Development and Family Science

HDFS 341 Family Studies

HDFS 360 Critical Thinking in HDFS

HDFS 431 Family, School, and Community Collaboration (3)

HDFS 444 Family Violence & Neglect

HDFS 447 Families and Poverty

HDFS 460 Family Policy

Nutrition

NUTR 311 Food Service Production and Purchasing

NUTR 312 Issues in Nutrition and Health (3)

NUTR 319 Promoting Food and Nutrition (3)

NUTR 423 Community Nutrition

NUTR 439 Communications in Dietetics (3)

NUTR 446 Managing Food and Nutrition Services

H 210

H 210, PS 201

Econ 201, H 210

H 210, H 250

BA 215, H 210, H 250

H 210

HDFS 311, HDFS 313

NUTR 235

NUTR 225, NUTR 240

NUTR 325

NUTR 325

NUTR 311

NUTR 447 Management of Food Systems Laboratory (3)

NUTR 446, NUTR 546

Kinesiology

KIN 131 Introduction to Kinesiology (1)

KIN 132 Introduction to Allied Health Professions (1)

KIN 230 Introduction to Adventure Programs (3)

KIN 231 Human Group Dynamics (3)

KIN 232 Backcountry Leadership (3)

KIN 233 Teaching Techniques for Outdoor Activities (3)

KIN 325 Fitness Assessment and Exercise Prescription (2)

KIN 394 Professional Activities: Resistance Training Program Design (2)

KIN 395. Professional Activities: Group Fitness (2)

KIN 422 Facilitating Physical Activity for Children and Youth (3)

KIN 435 Physical Activity Promotion (3)

EXSS 230 or KIN 230, PAC 301, PAC 325, PAC 326

EXSS 232, KIN 232

KIN 324 or EXSS 324

KIN 324 or EXSS 324

KIN 324 or EXSS 324, KIN 325 or EXSS 325

Ag Science - Available only if an Ag Science major

Horticulture

HORT 111. Introduction to Horticulture Crop Production (2)

HORT 112. Introduction to Horticultural Systems, Practices and Careers (2)

HORT (CROP) 300. Crop Production in Pacific Northwest Agroecosystems

HORT 412. Career Exploration: Internships and Research Projects (1)

HORT 480. Case Studies in Cropping Systems (4 or 8)

HORT 481. Horticulture Production Case Studies

HORT 495 Horticultural Management Plans (3 or 6)

One Year of General Biology

HORT/CROP 300

HORT 301, Senior standing

Senior standing

Ag Science

AG 421. Leadership Development (3)

AG 492. Technology Transfer in Agriculture (3)

Senior Standing

Senior Standing

Ag Business Management

AEC 121. Discovering Agricultural and Resource Economics (1)

AEC 211: Agricultural and Food Management

AEC 221: Agricultural and Food Marketing (3)

AEC 251: Introduction to Agricultural and Food Economics (3)

AEC 311: Intermediate Applied Economics I: Producers and Consumers

AEC 353: Introduction to Coastal and Marine Resource Economics (3)

AEC 372: Agricultural Cooperatives (3)

AEC 388: Agricultural Law

AEC 440: The Economics of Business Organization in the Food System

AEC 442: Agricultural Business Management

AEC 460: Capital Investment Analysis Using AGBIZ Logic (3)

AEC 465: Agricultural and Food Financial Management (3)

AEC 466: Agricultural and Food Marketing Management

AEC 475: Writing Business Plans: Agriculture/Food-related Enterprises (2)

AEC 250 [C-] or AEC 251 [C-] or AREC 250 [C-] or ECON 201 [C-] or ECON 201H [C-]

AEC 250 [D-] or AEC 251 [D-] or AREC 250 [D-] or ECON 201 [D-] or ECON 201H [D-]

MTH 111 or equivalent is recommended.

AEC 250 [C-] or AREC 250 [C-] or ECON 201 [C-] or ECON 201H [C-]) and (MTH 241 [C-] or MTH 251 [C-] or MTH 251H [C-])

MTH 111 [C-] and (AEC 250 [C-] or AREC 250 [C-] or ECON 201 [C-] or ECON 201H [C-])

AEC 211 [D-] or AREC 211 [D-]

AEC 311 [D-] or ECON 311 [D-] and /or instructor consent

Animal Sciences

ANS 215 Beef/Dairy Industry (3)

ANS 216 Sheep/Swine Industries (3)

ANS 217 Poultry Industries (3)

ANS 223 Equine Marketing (2)

ANS 333 Equine Stable Management (3)

ANS 433 Poultry Meat Production Systems (3)

ANS 434 Egg Production Systems (3)

ANS 436 Sheep Production Systems (3)

ANS 439 Dairy Production Systems

ANS 443 Beef Production Systems: Cow/Calf (3)

ANS 444 Beef Production Systems: Stocker/Feedlot (3)

ANS 445 Beef Production Systems

ANS 456 Companion Animal Production Systems (3)

ANS 460 Beef Production Systems

ANS 121

ANS 121

ANS 121

ANS 121, ANS 220

ANS 220, ANS 222

ANS 217, ANS 313, ANS 316, ANS 378

ANS 217, ANS 313, ANS 316, ANS 378

ANS 216, ANS 311, ANS 316, ANS 378

ANS 215, ANS 313, ANS 316, ANS 378

ANS 313, ANS 315, ANS 316, ANS 378

ANS 443 or ANS 543

ANS 313, ANS 315, ANS 316, ANS 378

ANS 313, ANS 316, ANS 317, ANS 378

ANS 121, ANS 216, ANS 311, ANS 316, ANS 378

Crop and Soil Science

CROP 280 Introduction to the Complexity of Oregon Cropping Systems

CROP (HORT) 300 Crop Production in Pacific Northwest Agroecosystems

CROP 310 Forage Production

CROP 319 Principles of Field Crop Production

One year of general biology or equivalent.

(CSS 300 or CROP 300 or HORT 300) and (CSS 305 or CSS 205 or SOIL 205) or equivalent

CROP 280 or equivalent and SOIL 205

CROP 325 Ag and Environmental Predicaments: A Case Study Approach (3)	(CSS 305 [D-] or CSS 205 [D-] or SOIL 205 [D-])
CROP 460 Seed Production (3)	CROP 200 or CSS 200 or equivalent.
CROP 480 Case Studies in Cropping Management Systems	CROP 300 or HORT 300 and senior standing in agriculture.
Food Science	
FST 210 Fruit and Vegetable Processing (3)	(CH 123 or CH 223 or CH 233) and (CH 263 or CH 263H)
FST 212 Dairy Processing (2)	CH 123 or CH 223 or CH 233
FST 213 Dairy Processing (1)	FST 212
FST 260 Food Science and Technology in Western Culture (3)	
FST 315 Pilot Plant Experiences (2)	
FST 370 Industry Preparation/HACCP (3)	
FST 421 Food Law (3)	
FST 430 Innovation and Food Product Development	CH 331, CH 332, FST 360, FST 421, FST 422
FST 460 Brewing Science (3)	BI 212, CH 331, CH 332, BEE 472, MB 302
FST 466 Wine Production Principles (3)	BI 212, CH 331, CH 332, BB 350, MB 302
FST 467 Wine Production, Analysis, and Sensory Evaluation (5)	FST 466, FST 479

College of Earth, Ocean and Atmospheric Sciences - Available only if a CEOA major

Geology

GEO 440. Economic Geology	GEO 315 with D- or better
GEO 497. Field Mapping of Ore Deposits (3)	

Geography

GEOG 360. GISCIENCE I: Geographic information systems and theory	
GEOG 361. GISCIENCE II: Analysis and applications	GEOG 360 with C- or better and MTH 112 [C-] and (ST 201 [C-] or ST 351 [C-])
GEOG 370. Geovisualization: Cartography	GEOG 201 with D- or better or GEO 301 with D- or better
GEOG 371. Geovisualization: Web Mapping	GEOG 201 with D- or better or GEO 301 with D- or better
GEOG 462. GISCIENCE III: Programming for geospatial analysis	GEOG 361 with C- or better or GEOG 561 with C- or better or GEO 480 with C- or better
GEOG 463. GISCIENCE IV: Spatial Modeling	GEOG 462 with C- or better or GEOG 562 with C- or better or GEO 578 with C- or better
GEOG 464. Geospacial perspectives on intelligence, security and ethics (3)	GEOG 360 with C- or better or GEOG 560 with C- or better or GEO 365 with C- or better or GEO 465 with C- or better
GEOG 472. Geovisualization: Geovisual analytics (3)	GEOG 370 with C- or better or GEOG 371 with C- or better or GEO 360 with C- or better
GEOG 480. Remote Sensing I: Principles and Applications	GEOG 201 with C- or better or GEO 301 with C- or better
GEOG 481. Remote Sensing II: Digital Image Processing	(GEOG 480 with C- or better or GEOG 580 with C- or better or GEO 444 with C- or better or GEO 544 with C- or better) and (ST 202 [D-] or ST 352 [D-])

College of Liberal Arts - Available only if a Liberal Arts major

Art

ART 339. Professional Practices for Artists (3)
ART 350. Photography on Assignment
ART 352. *Creative Collaboration: Designing and Building (3 Credits)
ART 414. Arts Management (3 Credits)
ART 451. Introduction to Arts Entrepreneurship (3)

Economics

ECON 350. Financial Economics	ECON 201 with D- or better and ECON 202 [D-]
ECON 460. Industrial Organization Theory and Policy	ECON 311 with D- or better or ECON 411 with D- or better
ECON 462. Managerial Economics	ECON 311 with D- or better or ECON 411 with D- or better
ECON 463. Efficiency and Productivity Analysis	ECON 311 with C or better or ECON 411 with C or better

Graphic Design

GD 230. Graphic Design: Professional Development (2)	
GD 325. Graphic Design: Collaborative Processes	
GD 420. Professional practices (3)	GD 126 with D- or better
GD 424. Brand Identity Systems	GD 126 with C- or better
GD 429. Graphic Design Studio	

New Media Communications

NMC 255. Introduction to Sound Design	NMC 101 with C- or better
NMC 355. Applied Sound Design	NMC 255 with C- or better and NMC 260 [C-]
NMC 380. Pre-production	NMC 260 with C- or better
NMC 382. Studio and Multicamera Production	
NMC 383. Field Production	NMC 380 with C- or better
NMC 385. 2D Motion Design	ART 121 with C- or better and NMC 260 [C-]
NMC 440. Media Management (3)	NMC 301 with C- or better
NMC 441. Media Entrepreneurship (3)	NMC 301 with C- or better

NMC 461. Trans-media Publishing I: Creating IP
NMC 462. Trans-media Publishing II: Exploiting IP (3)
NMC 481. Post Production
NMC 482. Documentary
NMC 483. New Media 3-D
NMC 484. New Media Animation
NMC 498. Advanced Collaborative Experience (3-4)

Philosophy

PHL 121. Reasoning and Writing (3)

PHL 205. Ethics

Writing

WR 414. Advertising and Public Relations Writing

WR 448. Magazine Article Writing

NMC 260 with C- or better and NMC 301 [C-]
NMC 260 with C- or better and NMC 301 [C-]
NMC 383 with C- or better
NMC 383 with C- or better

NMC 101 with C- or better and NMC 301 [C-]

WR 121 with B or better or WR 121H with B or better