

BYU-Idaho Academic Catalog

Building Information Modeling (Certificate)

Program Description



At the heart of the Virtual Design and Construction degree (VDC degree proposed elsewhere) is the use of Building Information Modeling (BIM). BIM is a generic term for various 3-D CADD programs that are employed to model construction projects in the virtual world. A further explanation of how these models are used in the industry is outlined in the VDC proposal. The BIM certificate would provide students with an immersive project based experience in both CADD and BIM software. A student in possession of a BIM Certificate would have immediately employable skills.

Program Code

C134

Program Learning Outcomes (PLOs)

1. Create a computer-generated Building Information Model that meets project requirements.
2. Create a professional graphic illustration demonstrating design principles and technical skills.
3. Create an accurate construction document demonstrating knowledge of building materials and construction assemblies.

Program Notes





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- Completion of this certificate does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.

Program Course Requirements



Certificate Core

15

Total Credits



- Take the following:
 - [VDC120](#) - Introduction to Computer Aided Design (3)
 - [VDC190](#) - Building Information Modeling I (3)
 - [VDC310](#) - Preconstruction Building Information Modeling (3)
 - [VDC290](#) - Building Information Modeling II (3)
 - [CONST311](#) - Construction BIM (3)

Grand Total Credits: 15

Department

Department of Design and Construction Management



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BYU-Idaho Academic Catalog

Chemistry (Cluster)

Program Description



A cluster of courses (12-15 credits) designed to introduce students to general, organic, and biological chemistry.

Program Code

6500

Program Course Requirements



Core Courses

12

Total Credits

- Take 12 credit(s) from:
 - [CHEM105](#) - General Chemistry I (3)
 - [CHEM105L](#) - General Chemistry Laboratory I (1)
 - [CHEM106](#) - General Chemistry II (3)
 - [CHEM106L](#) - General Chemistry Laboratory II (1)
 - [CHEM220](#) - Quantitative Analysis (3)
 - [CHEM220L](#) - Quantitative Analysis Laboratory (2)
 - [CHEM250](#) - Introductory Organic and Biochemistry (3)
 - [CHEM250L](#) - Introductory Organic and Biochemistry Lab (1)
 - [CHEM351](#) - Organic Chemistry I (3)





Department of Chemistry and Biochemistry

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Campus Map

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Employment



BYU-Idaho Academic Catalog

Chemistry (Major: Bachelor-Level)

Program Description



Chemistry is the study of matter, energy, and their transformations. The principles of this discipline serve as a theoretical basis for a wide variety of fields such as agriculture, biology, dentistry, engineering, geology, medicine, nutrition, and physics. In addition, chemistry's analytical and logical approach to the world is excellent training for fields such as law and government.

Program Code

710

Program Learning Outcomes (PLOs)

1. Follow standard industrial chemical safety practices.
2. Explain and predict chemical changes using current chemical theories, including quantum chemistry, statistical mechanics, and spectroscopy.
3. Implement standard operating procedures in the laboratory.
4. Synthesize a target product using a multistep chemical process, including inorganic and organometallic materials.
5. Separate mixtures using standard laboratory separation techniques.
6. Identify a target product using standard characterization techniques.
7. Prepare samples for instrumental analysis.
8. Quantitatively analyze a sample using classical laboratory techniques.





Program Notes



- To graduate with a Bachelor's degree, a student must earn:
 - grades of C- or higher in major courses
 - a 2.0 cumulative GPA
 - a minimum of 120 cumulative credits
- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.
- For a recommended sequence of courses, please refer to the advising information on the [department website](#).
- Chemistry majors may need to request a track adjustment for the Fall/Winter track upon beginning their junior-level chemistry courses. Please consult with a faculty adviser.

Program Course Requirements



General Education

39

Total Credits



- Take at least 39 credit(s) to complete one of the following program(s): [GE - BACH](#)

Core

47 - 49

Total Credits



- Complete all of the following

Introductory Chemistry

- Take the following:
 - [CHEM105](#) - General Chemistry I (3)
 - [CHEM105L](#) - General Chemistry Laboratory I (1)
 - [CHEM106](#) - General Chemistry II (3)
 - [CHEM106L](#) - General Chemistry Laboratory II (1)
 - [CHEM220](#) - Quantitative Analysis (3)
 - [CHEM220L](#) - Quantitative Analysis Laboratory (2)
 - [CHEM351](#) - Organic Chemistry I (3)
 - [CHEM351L](#) - Organic Chemistry Laboratory I (1)
 - [CHEM352](#) - Organic Chemistry II (3)
 - [CHEM352L](#) - Organic Chemistry Laboratory II (1)

Core Courses

- Take the following:
 - [CHEM391](#) - Technical Writing in Chemical Literature (2)

[CHEMISTRY](#) / Physical Chemistry Electives

- [CHEM470](#) - Inorganic Chemistry (3)
- [CHEM471](#) - Advanced Laboratory (2)
- [CHEM481](#) - Biochemistry I (3)
- [CHEM498R](#) - Chemistry/Biochemistry Internship (1 - 3)

Special Topics**2**

Total Credits



- Take 2 credit(s) from:

- [CHEM290R](#) - Special Topics in Chemistry (1 - 3)
- [CHEM490R](#) - Advanced Topics in Chemistry (1 - 3)
- [CHEM492R](#) - Student Research (1 - 2)

Physics and Math**17**

Total Credits



- Take the following:

- [MATH112X](#) - Calculus I (4)
- [MATH215](#) - Multivariable Calculus (4)
- [PH121](#) - Principles of Physics I (3)
- [PH150](#) - Beginning Physics Lab (1)
- [PH223](#) - Engineering Physics (4)
- [PH250](#) - Intermediate Physics Lab (1)

Unspecified Electives**13**

Total Credits



- Take at least 13 credit(s) from any eligible university credits.

In addition to courses meeting the requirements for this program, students can take other courses offered by the university, for which they meet the course eligibility requirements, to bring their total number of credits to the minimum of 120 credits required for graduation. Additional credits may also come from credits received through General Education courses.

Grand Total Credits: 118 - 120**Degree**

Bachelor of Science (BS)

Department

Department of Chemistry and Biochemistry



BYU-Idaho Academic Catalog

Chemistry (Minor)

Program Description



A group of courses (20-24 credits) designed to encourage focused learning in Chemistry, complementary to an integrated standard degree or as an element of an interdisciplinary studies degree.

Program Code

146



Program Notes



- No grade less than C- in required courses.
- No double counting of courses within the Minor.

Program Course Requirements



Core

8

Total Credits



- Take the following:
 - [CHEM105](#) - General Chemistry I (3)
 - [CHEM105L](#) - General Chemistry Laboratory I (1)



Total Credits

- Complete all of the following
 - Take 2 credit(s) from:
 - [CHEM220L](#) - Quantitative Analysis Laboratory (2)
 - [CHEM351L](#) - Organic Chemistry Laboratory I (1)
 - [CHEM352L](#) - Organic Chemistry Laboratory II (1)
 - AND
 - Take 10 credit(s) from:
 - [CHEM220](#) - Quantitative Analysis (3)
 - [CHEM220L](#) - Quantitative Analysis Laboratory (2)
 - [CHEM351](#) - Organic Chemistry I (3)
 - [CHEM351L](#) - Organic Chemistry Laboratory I (1)
 - [CHEM352](#) - Organic Chemistry II (3)
 - [CHEM352L](#) - Organic Chemistry Laboratory II (1)
 - [CHEM461](#) - Quantum Chemistry and Spectroscopy (4)
 - [CHEM462](#) - Statistical Mechanics, Chemical Thermodynamics, and Kinetics (4)
 - [CHEM464](#) - Physical Chemistry Lab (2)
 - [CHEM368](#) - Physical Biochemistry (3)
 - [CHEM470](#) - Inorganic Chemistry (3)
 - [CHEM471](#) - Advanced Laboratory (2)
 - [CHEM481](#) - Biochemistry I (3)
 - [CHEM482](#) - Biochemistry II (3)

Grand Total Credits: 20**Department**

Department of Chemistry and Biochemistry





BYU-Idaho Academic Catalog

Cloud Computing (Certificate)

Program Description



This certificate provides students with an understanding of the principles, technologies, and practices related to cloud computing. The certificate equips students with the knowledge of cloud-based systems and services. Throughout the certificate, students explore various aspects of cloud computing, including distributed systems, storage, security, and scalability.

Program Code

C188

Program Learning Outcomes (PLOs)

1. Develop and deploy digital products in the cloud.
2. Apply cost optimization strategies for cloud environments.
3. Create and present value propositions for use of a new technology.
4. Support business activities that help identify product market fit.

Program Notes



- To be awarded an academic certificate independent of a bachelor's or an associate degree, a student must earn:





Program Course Requirements



Certificate Core

14

Total Credits



- Take the following:
 - [ITM101](#) - Introduction to Cloud Technologies (2)
 - [ITM112](#) - Introduction to Linux (2)
 - [WDD130](#) - Web Fundamentals (2)
 - [WDD131](#) - Dynamic Web Fundamentals (2)
 - [ITM300](#) - Cloud Foundations (3)
 - [ITM310](#) - Applied Cloud Computing (3)

Grand Total Credits: 14

Department

Department of Computer Science and Engineering

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BYU-Idaho Academic Catalog

Cloud Computing (Major: Associate-Level)

Program Description



This degree provides students with an understanding of the principles, technologies, and practices related to cloud computing. The courses equip students with the knowledge of cloud-based systems and services while providing a foundation in development. Throughout the degree, students explore various aspects of cloud computing, including development, distributed systems, storage, security, and scalability.

This degree helps prepare students for a career as a Cloud Engineer, Cloud Manager, Cloud Practitioner, DevOps Engineer, Site Reliability Engineer, or related field.

Program Code

381

Program Learning Outcomes (PLOs)

1. Develop and deploy digital products in the cloud.
2. Apply cost optimization strategies for cloud environments.
3. Create and present value propositions for use of a new technology.
4. Support business activities that help identify product market fit.
5. Demonstrate proficiency in cloud technology best practices.
6. Automate the creation and configuring of resources used in a cloud computing environment.





- grades of C- or higher in major courses
- a 2.0 cumulative GPA
- a minimum of 60 cumulative credits
- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.
- No double-counting.

Program Course Requirements



General Education

18

Total Credits



- Take at least 18 credit(s) to complete one of the following program(s): [GE - AAS](#)

Component(s)

14

Total Credits



Cloud Computing Certificate

- Take at least 14 credit(s) to complete one of the following program(s): [C188](#)

Core

26

Total Credits



- Complete all of the following

- Take 1 of the following:

- [ITM111](#) - Introduction to Databases (3)
- [ITM220](#) - SQL (3)

AND

- Take the following:

- [CSE110](#) - Introduction to Programming (2)
- [CSE111](#) - Programming with Functions (2)
- [CYBER201](#) - Cybersecurity Fundamentals (2)
- [CSE210](#) - Programming with Classes (2)
- [WDD231](#) - Web Frontend Development I (2)
- [BUS200](#) - Small Business Management (3)
- [BUS310](#) - Launching New Ventures (3)
- [CSE300](#) - Professional Readiness (1)
- [ITM350](#) - IT Management and DevOps (3)
- [ITM450](#) - DevOps II (3)



In addition to courses meeting the requirements for this program, students can take other courses offered by the university, for which they meet the course eligibility requirements, to bring their total number of credits to the minimum of 60 credits required for graduation.

Grand Total Credits: 60

Degree

Associate of Applied Science (AAS)

Department

Department of Computer Science and Engineering

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BYU-Idaho Academic Catalog

Cloud Computing (Major: Bachelor-Level)

Program Description



This program aims to provide students with a comprehensive understanding of cloud-based technologies and their application in developing innovative products. The program combines theoretical knowledge with practical skills to equip students with the expertise needed to create, manage, and optimize cloud-based digital products.

Students will gain proficiency in cloud infrastructure, platforms, and services, and learn how to leverage these technologies to build scalable and secure solutions. This degree helps prepare students for a career as a Cloud Architect, Cloud Developer, Cloud Engineer, Cloud Manager, Cloud Practitioner, Cloud Security Analyst, DevOps Engineer, Site Reliability Engineer, or related field.

Program Code

668

Program Learning Outcomes (PLOs)

1. Develop and deploy digital products in the cloud.
2. Apply cost optimization strategies for cloud environments.
3. Create and present value propositions for use of a new technology.
4. Support business activities that help identify product market fit.
5. Demonstrate proficiency in cloud technology best practices.
6. Automate the creation and configuring of resources used in a cloud computing environment.
7. Design and implement scalable, secure and highly available systems.





- To graduate with a Bachelor's degree, a student must earn:
 - grades of C- or higher in major courses
 - a 2.0 cumulative GPA
 - a minimum of 120 cumulative credits
- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.
- No double-counting of courses.

Program Course Requirements



General Education

39

Total Credits



- Take at least 39 credit(s) to complete one of the following program(s): [GE - BACH](#)

Component(s)

14

Total Credits



Cloud Computing Certificate

- Take at least 14 credit(s) to complete one of the following program(s): [C188](#)

Core

40 - 42

Total Credits



- Take the following:

- [BUS200](#) - Small Business Management (3)
- [BUS310](#) - Launching New Ventures (3)
- [BUS321](#) - Organizational Leadership (3)
- [CSE110](#) - Introduction to Programming (2)
- [CSE111](#) - Programming with Functions (2)
- [CSE210](#) - Programming with Classes (2)
- [CSE300](#) - Professional Readiness (1)
- [CSE341](#) - Web Services (3)
- [CYBER201](#) - Cybersecurity Fundamentals (2)
- [CYBER240](#) - Networking (3)
- [ITM220](#) - SQL (3)
- [ITM350](#) - IT Management and DevOps (3)
- [ITM398R](#) - Internship (1 - 3)
- [ITM400](#) - Cloud Architecture (4)
- [ITM450](#) - DevOps II (3)



- Complete 1 of the following

Option 1:

- Take 1 of the following:
 - [ITM295R](#) - Portfolio Service Project (1)
 - [ITM298R](#) - Introductory Internship (1 - 3)

Option 2:

- Take the following:
 - [WDD199](#) - Technology Product Development I (2)
 - [WDD299](#) - Technology Product Development II (2)

Unspecified Electives**21**

Total Credits



- Take at least 21 credit(s) from any eligible university credits.

In addition to courses meeting the requirements for this program, students can take other courses offered by the university, for which they meet the course eligibility requirements, to bring their total number of credits to the minimum of 120 credits required for graduation. Additional credits may also come from credits received through General Education courses.

Grand Total Credits: 115 - 120

Degree

Bachelor of Science (BS)

Department

Department of Computer Science and Engineering



BYU-Idaho Academic Catalog

Communication Theory (Minor)

Program Description



The minor in Communication Theory is designed to provide students with an understanding of the theoretical foundations of communication, as well as applied aspects of communication research and practice. These are valuable assets in the job market, as employers appreciate candidates who can recognize changes in media, think critically about communication issues, analyze data, and develop effective solutions. By studying these theories, students develop the ability to publicly present ideas and to write effectively for multiple audiences. Students also gain a deeper understanding of human behavior and motivation.

Program Code

284

Program Learning Outcomes (PLOs)

1. Communicate legally and ethically.
2. Model effective interaction in one-on-one and group settings.
3. Demonstrate effective presentation skills.
4. Write accurately, clearly and creatively.
5. Produce compelling visual media.

Program Notes





Program Course Requirements

**Core****24**

Total Credits



- Take the following:
 - [COMM102](#) - Public Speaking (3)
 - [COMM111](#) - Writing for Communication Career (3)
 - [COMM130](#) - Visual Media (3)
 - [COMM140](#) - Mass Media and Society (3)
 - [COMM150](#) - Interpersonal Theory and Practice (3)
 - [COMM273](#) - Professional Presentations (3)
 - [COMM280](#) - Communication Research Fundamentals (3)
 - [COMM307](#) - Ethics and Legal Issues (3)

Grand Total Credits: 24

Department

Department of Communication



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Program Course Requirements



General Education

39

Total Credits



- Take at least 39 credit(s) to complete one of the following program(s): [GE - BACH](#)

Core

26 - 27

Total Credits



Emphasis

29

Total Credits



- Take at least 29 credit(s) from one of the Emphasis options listed below.

Unspecified Electives

25

Total Credits

**Grand Total Credits: 119 - 120**

Degree

Bachelor of Science (BS)

Department

Department of Communication

Emphasis/Concentration Options

Digital/Social Media & Journalism



Digital/Social Media & Video Production



Emphasis/Concentration Description

Digital and Social Media prepares students to enter a career as a social media specialist, coordinator, strategist, or manager. It teaches students to curate and create content for intended audiences using multiple mediums and digital and social media strategies. In addition, students will learn how to make data-driven decisions and measure their effectiveness. It relies on experience-based learning—providing students with meaningful



and entertain a broad spectrum of target audiences. Students will become technically excellent in creating content from project inception to client delivery across multiple platforms and channels.

It equips students for the real-world. Twenty-first century media is evolving at an unprecedented pace and video is central for many communication strategies.

Students will be able to analyze the creation of video content in professional and ethical ways, plan and create their own video products in answer to specific industry requirements, and create news pieces, advertisements, factual documentaries, and short narrative films.

Emphasis/Concentration Code

311

Emphasis/Concentration Course Requirements

Emphasis Core

26

Total Credits

- Complete all of the following

Digital and Social Media

- Take the following:
 - [COMM222](#) - Digital Media Brand Strategy (3)
 - [COMM315](#) - Design for Social Media (3)
 - [COMM320](#) - Digital Media Content Creation (3)
 - [COMM322](#) - Digital Media Analytics and Strategy (3)
 - [COMM397D](#) - Social Media Practicum (1)

AND Video Production

- Take the following:
 - [COMM260](#) - Video Principles and Practices (3)
 - [COMM265](#) - Video and Film Production Essentials (3)
 - [COMM362](#) - Broadcast Performance (3)
 - [COMM365](#) - Advanced Moving Image 1 (3)
 - [COMM497B](#) - Motion Graphic Software Practicum (1)

Capstone

3

Total Credits

- Take 1 of the following:
 - [COMM420](#) - Digital and Social Media Campaigns (3)
 - [COMM465](#) - Advanced Moving Image 2 (3)

Grand Total Credits: 29



Program Course Requirements



General Education

39

Total Credits



- Take at least 39 credit(s) to complete one of the following program(s): [GE - BACH](#)

Core

26 - 27

Total Credits



Emphasis

29

Total Credits



- Take at least 29 credit(s) from one of the Emphasis options listed below.

Unspecified Electives

25

Total Credits

**Grand Total Credits: 119 - 120**

Degree

Bachelor of Science (BS)

Department

Department of Communication

Emphasis/Concentration Options

Digital/Social Media & Journalism



Emphasis/Concentration Description

Digital and Social Media prepares students to enter a career as a social media specialist, coordinator, strategist, or manager. It teaches students to curate and create content for intended audiences using multiple mediums and digital and social media strategies. In addition, students will learn how to make data-driven decisions and measure their effectiveness. It relies on experience-based learning—providing students with meaningful opportunities to work on personal brands and with established organizations.

Digital and Social Media prepares students for a career in social media marketing. Students will learn to successfully develop, execute, and measure digital media strategies.



Students who graduate in communication with an emphasis in journalism get jobs in traditional and emerging news industries. They learn to be reporters and other non-fiction content creators. Many of our graduates also find employment in the emerging field of content marketing, freelance writing or creating non-fiction content for corporations or organizations. They also succeed in graduate school.

Emphasis/Concentration Code

310

Emphasis/Concentration Course Requirements

Emphasis Core

26

Total Credits

- Complete all of the following

Digital and Social Media

- Take the following:
 - [COMM222](#) - Digital Media Brand Strategy (3)
 - [COMM315](#) - Design for Social Media (3)
 - [COMM320](#) - Digital Media Content Creation (3)
 - [COMM322](#) - Digital Media Analytics and Strategy (3)
 - [COMM397D](#) - Social Media Practicum (1)

AND

Journalism

- Take the following:
 - [COMM240](#) - Newsgathering Principles and Practices (3)
 - [COMM340](#) - Advanced Media Writing (3)
 - [COMM342](#) - Editing Essentials (3)
 - [COMM360](#) - Video Journalism (3)
 - [COMM397A](#) - Scroll Practicum (1)

Capstone

3

Total Credits

- Take 1 of the following:
 - [COMM420](#) - Digital and Social Media Campaigns (3)
 - [COMM440](#) - News in the 21st Century (3)

Grand Total Credits: 29



Program Course Requirements



General Education

39

Total Credits



- Take at least 39 credit(s) to complete one of the following program(s): [GE - BACH](#)

Core

26 - 27

Total Credits



Emphasis

29

Total Credits



- Take at least 29 credit(s) from one of the Emphasis options listed below.

Unspecified Electives

25

Total Credits

**Grand Total Credits: 119 - 120**

Degree

Bachelor of Science (BS)

Department

Department of Communication

Emphasis/Concentration Options

Digital/Social Media & Journalism



Digital/Social Media & Video Production



Digital/Social Media & Visual Communication



Emphasis/Concentration Description



Digital and Social Media prepares students for a career in social media marketing. Students will learn to successfully develop, execute, and measure digital media strategies.

Visual Communication students gain marketable visual skills through project-based courses while creating portfolio work. Visual Communication students focus on developing the skills and thinking to strategically produce visuals that communicate a message. Students will learn to use industry standard software to apply design and composition principles to their design, photography, illustration, web design, and motion graphics. Students will learn to solve visual problems by implementing creative thinking processes. Graduates with this emphasis develop precise skills relevant to many levels and niches of industry.

Emphasis/Concentration Code

312

Emphasis/Concentration Course Requirements

Emphasis Core

26

Total Credits

- Complete all of the following

Digital and Social Media

- Take the following:
 - [COMM222](#) - Digital Media Brand Strategy (3)
 - [COMM315](#) - Design for Social Media (3)
 - [COMM320](#) - Digital Media Content Creation (3)
 - [COMM322](#) - Digital Media Analytics and Strategy (3)
 - [COMM397D](#) - Social Media Practicum (1)

AND Visual Communication

- Take the following:
 - [COMM300](#) - Digital Imaging (3)
 - [COMM305](#) - Vector Graphics (3)
 - [COMM310](#) - Creating Online Media (3)
 - [COMM316](#) - Professional Imaging (3)
 - [COMM397H](#) - Visual Emphasis Practicum (1)

Capstone

3

Total Credits

- Take 1 of the following:
 - [COMM420](#) - Digital and Social Media Campaigns (3)
 - [COMM462](#) - Advanced Visual Media (3)

Grand Total Credits: 29



Journalism provides real-world experience with journalism and news. Through the campus news organizations and courses, students get hands-on experience and build professional skills.

Students develop writing, video, editing, multimedia journalism, and production skills necessary to land a solid entry-level job in a variety of communication industries.

Students who graduate in communication with an emphasis in journalism get jobs in traditional and emerging news industries. They learn to be reporters and other non-fiction content creators. Many of our graduates also find employment in the emerging field of content marketing, freelance writing or creating non-fiction content for corporations or organizations. They also succeed in graduate school.

Emphasis/Concentration Code

313



- Complete all of the following
 - Journalism
 - Take the following:
 - [COMM240](#) - Newsgathering Principles and Practices (3)
 - [COMM340](#) - Advanced Media Writing (3)
 - [COMM342](#) - Editing Essentials (3)
 - [COMM360](#) - Video Journalism (3)
 - [COMM397A](#) - Scroll Practicum (1)
 - AND Organizational Leadership
 - Take the following:
 - [COMM250](#) - Organizational Principles (3)
 - [COMM350](#) - Group Dynamics (3)
 - [COMM352](#) - Persuasion (3)
 - [COMM450](#) - Conflict Resolution and Negotiation (3)
 - [COMM397E](#) - Community Outreach Practicum (1)

Capstone**3**

Total Credits



- Take 1 of the following:
 - [COMM440](#) - News in the 21st Century (3)
 - [COMM470](#) - Strategic Communication and Social Change (3)

Grand Total Credits: 29

Journalism & Visual Communication



Organizational Leadership & Digital/Social Media



Organizational Leadership & Visual Communication



Public Relations & Digital/Social Media





Emphasis/Concentration Description

Journalism provides real-world experience with journalism and news. Through the campus news organizations and courses, students get hands-on experience and build professional skills.

Students develop writing, video, editing, multimedia journalism, and production skills necessary to land a solid entry-level job in a variety of communication industries.

Students who graduate in communication with an emphasis in journalism get jobs in traditional and emerging news industries. They learn to be reporters and other non-fiction content creators. Many of our graduates also find employment in the emerging field of content marketing, freelance writing or creating non-fiction content for corporations or organizations. They also succeed in graduate school.

Visual Communication students gain marketable visual skills through project-based courses while creating portfolio work. Visual Communication students focus on developing the skills and thinking to strategically produce visuals that communicate a message. Students will learn to use industry standard software to apply design and composition principles to their design, photography, illustration, web design, and motion graphics. Students will learn to solve visual problems by implementing creative thinking processes. Graduates with this emphasis develop precise skills relevant to many levels and niches of industry.

Emphasis/Concentration Code

314

Emphasis/Concentration Course Requirements

Emphasis Core

26

Total Credits

- Complete all of the following

Journalism

- Take the following:
 - [COMM240](#) - Newsgathering Principles and Practices (3)
 - [COMM340](#) - Advanced Media Writing (3)
 - [COMM342](#) - Editing Essentials (3)
 - [COMM360](#) - Video Journalism (3)
 - [COMM397A](#) - Scroll Practicum (1)

AND Visual Communication

- Take the following:
 - [COMM300](#) - Digital Imaging (3)
 - [COMM305](#) - Vector Graphics (3)
 - [COMM310](#) - Creating Online Media (3)
 - [COMM316](#) - Professional Imaging (3)



- Take 1 of the following:
 - [COMM440](#) - News in the 21st Century (3)
 - [COMM462](#) - Advanced Visual Media (3)

Grand Total Credits: 29

Organizational Leadership & Digital/Social Media ▼

Organizational Leadership & Visual Communication ▼

Public Relations & Digital/Social Media ▼

Public Relations & Journalism ▼

Public Relations & Organizational Leadership ▼

Video Production & Journalism ▼

Video Production & Organizational Leadership ▼

Video Production & Public Relations ▼

Visual Communication & Public Relations ▼

Visual Communication & Video Production ▼



JOURNALISM & VISUAL COMMUNICATION

Organizational Leadership & Digital/Social Media



Emphasis/Concentration Description

A group of courses through which students specialize in Organizational Leadership and Digital and Social Media.

Emphasis/Concentration Code

307

Emphasis/Concentration Course Requirements

Emphasis Core

26

Total Credits



- Complete all of the following

Organizational Leadership

- Take the following:
 - [COMM250](#) - Organizational Principles (3)
 - [COMM350](#) - Group Dynamics (3)
 - [COMM352](#) - Persuasion (3)
 - [COMM450](#) - Conflict Resolution and Negotiation (3)
 - [COMM397E](#) - Community Outreach Practicum (1)

AND Digital & Social Media

- Take the following:
 - [COMM222](#) - Digital Media Brand Strategy (3)
 - [COMM315](#) - Design for Social Media (3)
 - [COMM320](#) - Digital Media Content Creation (3)
 - [COMM322](#) - Digital Media Analytics and Strategy (3)
 - [COMM397D](#) - Social Media Practicum (1)

Capstone

3

Total Credits



- Take 1 of the following:

- [COMM470](#) - Strategic Communication and Social Change (3)
- [COMM420](#) - Digital and Social Media Campaigns (3)

Grand Total Credits: 29



JOURNALISM & VISUAL COMMUNICATION

Organizational Leadership & Digital/Social Media

Organizational Leadership & Visual Communication

Emphasis/Concentration Description

Visual Communication students gain marketable visual skills through project-based courses while creating portfolio work. Visual Communication students focus on developing the skills and thinking to strategically produce visuals that communicate a message. Students will learn to use industry standard software to apply design and composition principles to their design, photography, illustration, web design, and motion graphics. Students will learn to solve visual problems by implementing creative thinking processes. Graduates with this emphasis develop precise skills relevant to many levels and niches of industry.

Emphasis/Concentration Code

315

Emphasis/Concentration Course Requirements

Emphasis Core

26

Total Credits



- Complete all of the following

Organizational Leadership

- Take the following:
 - [COMM250](#) - Organizational Principles (3)
 - [COMM350](#) - Group Dynamics (3)
 - [COMM352](#) - Persuasion (3)
 - [COMM450](#) - Conflict Resolution and Negotiation (3)
 - [COMM397E](#) - Community Outreach Practicum (1)

AND Visual Communication

- Take the following:
 - [COMM300](#) - Digital Imaging (3)
 - [COMM305](#) - Vector Graphics (3)
 - [COMM310](#) - Creating Online Media (3)
 - [COMM316](#) - Professional Imaging (3)
 - [COMM397H](#) - Visual Emphasis Practicum (1)

**Grand Total Credits: 29**Public Relations & Digital/Social Media ▼Public Relations & Journalism ▼Public Relations & Organizational Leadership ▼Video Production & Journalism ▼Video Production & Organizational Leadership ▼Video Production & Public Relations ▼Visual Communication & Public Relations ▼Visual Communication & Video Production ▼



JOURNALISM & VISUAL COMMUNICATION

Organizational Leadership & Digital/Social Media



Organizational Leadership & Visual Communication



Public Relations & Digital/Social Media



Emphasis/Concentration Description

Public Relations prepares students for professional work in the public relations industry. Students will learn to establish effective relationships with key publics, as well as how to anticipate, analyze, and interpret public opinion. They will gain the skills necessary to persuade, educate and protect their clients' and organizations' reputations, thereby directly influencing organizational success. In addition to research, students will also learn how to influence audiences using persuasive principles and tools to achieve organizational goals. The use of traditional and digital media will be accentuated. Courses are designed to prepare students with excellent writing skills and other key skills required to begin a public relations career.

Digital and Social Media prepares students to enter a career as a social media specialist, coordinator, strategist, or manager. It teaches students to curate and create content for intended audiences using multiple mediums and digital and social media strategies. In addition, students will learn how to make data-driven decisions and measure their effectiveness. It relies on experience-based learning—providing students with meaningful opportunities to work on personal brands and with established organizations.

Digital and Social Media prepares students for a career in social media marketing. Students will learn to successfully develop, execute, and measure digital media strategies.

Emphasis/Concentration Code

316

Emphasis/Concentration Course Requirements

Emphasis Core

26

Total Credits



- Complete all of the following

- Public Relations

- Take the following:

- [COMM235 - PR Principles and Writing \(3\)](#)
 - [COMM335 - Public Relations Research \(3\)](#)
 - [COMM336 - Public Relations Design \(3\)](#)



- [COMM315](#) - Design for Social Media (3)
- [COMM320](#) - Digital Media Content Creation (3)
- [COMM322](#) - Digital Media Analytics and Strategy (3)
- [COMM397D](#) - Social Media Practicum (1)

Capstone**3**

Total Credits

- Take 1 of the following:
 - [COMM435](#) - Public Relation Campaigns (3)
 - [COMM420](#) - Digital and Social Media Campaigns (3)

Grand Total Credits: 29

Public Relations & Journalism



Public Relations & Organizational Leadership



Video Production & Journalism



Video Production & Organizational Leadership



Video Production & Public Relations



Visual Communication & Public Relations



Visual Communication & Video Production





JOURNALISM & VISUAL COMMUNICATION

Organizational Leadership & Digital/Social Media



Organizational Leadership & Visual Communication



Public Relations & Digital/Social Media



Public Relations & Journalism



Emphasis/Concentration Description

Public Relations prepares students for professional work in the public relations industry. Students will learn to establish effective relationships with key publics, as well as how to anticipate, analyze, and interpret public opinion. They will gain the skills necessary to persuade, educate and protect their clients' and organizations' reputations, thereby directly influencing organizational success. In addition to research, students will also learn how to influence audiences using persuasive principles and tools to achieve organizational goals. The use of traditional and digital media will be accentuated. Courses are designed to prepare students with excellent writing skills and other key skills required to begin a public relations career.

Journalism provides real-world experience with journalism and news. Through the campus news organizations and courses, students get hands-on experience and build professional skills.

Students develop writing, video, editing, multimedia journalism, and production skills necessary to land a solid entry-level job in a variety of communication industries.

Students who graduate in communication with an emphasis in journalism get jobs in traditional and emerging news industries. They learn to be reporters and other non-fiction content creators. Many of our graduates also find employment in the emerging field of content marketing, freelance writing or creating non-fiction content for corporations or organizations. They also succeed in graduate school.

Emphasis/Concentration Code

318

Emphasis/Concentration Course Requirements

Emphasis Core

26

Total Credits



- Complete all of the following



- [COMM425](#) - Crisis Communication (3)
 - [COMM397J](#) - Public Relations Practicum (1)
- AND Journalism
- Take the following:
 - [COMM240](#) - Newsgathering Principles and Practices (3)
 - [COMM340](#) - Advanced Media Writing (3)
 - [COMM342](#) - Editing Essentials (3)
 - [COMM360](#) - Video Journalism (3)
 - [COMM397A](#) - Scroll Practicum (1)

Capstone**3**

Total Credits

- Take 1 of the following:
 - [COMM435](#) - Public Relation Campaigns (3)
 - [COMM440](#) - News in the 21st Century (3)

Grand Total Credits: 29

Public Relations & Organizational Leadership

Video Production & Journalism

Video Production & Organizational Leadership

Video Production & Public Relations

Visual Communication & Public Relations

Visual Communication & Video Production





JOURNALISM & VISUAL COMMUNICATION

Organizational Leadership & Digital/Social Media

Organizational Leadership & Visual Communication

Public Relations & Digital/Social Media

Public Relations & Journalism

Public Relations & Organizational Leadership

Emphasis/Concentration Description

Public Relations prepares students for professional work in the public relations industry. Students will learn to establish effective relationships with key publics, as well as how to anticipate, analyze, and interpret public opinion. They will gain the skills necessary to persuade, educate and protect their clients' and organizations' reputations, thereby directly influencing organizational success. In addition to research, students will also learn how to influence audiences using persuasive principles and tools to achieve organizational goals. The use of traditional and digital media will be accentuated. Courses are designed to prepare students with excellent writing skills and other key skills required to begin a public relations career.

Emphasis/Concentration Code

317

Emphasis/Concentration Course Requirements

Emphasis Core

26

Total Credits

- Complete all of the following

- Public Relations

- Take the following:

- [COMM235 - PR Principles and Writing](#) (3)
 - [COMM335 - Public Relations Research](#) (3)
 - [COMM336 - Public Relations Design](#) (3)



- [COMM350](#) - Group Dynamics (3)
- [COMM352](#) - Persuasion (3)
- [COMM450](#) - Conflict Resolution and Negotiation (3)
- [COMM397E](#) - Community Outreach Practicum (1)

Capstone**3**

Total Credits

- Take 1 of the following:
 - [COMM435](#) - Public Relation Campaigns (3)
 - [COMM470](#) - Strategic Communication and Social Change (3)

Grand Total Credits: 29

Video Production & Journalism



Video Production & Organizational Leadership



Video Production & Public Relations



Visual Communication & Public Relations



Visual Communication & Video Production





JOURNALISM & VISUAL COMMUNICATION

Organizational Leadership & Digital/Social Media

Organizational Leadership & Visual Communication

Public Relations & Digital/Social Media

Public Relations & Journalism

Public Relations & Organizational Leadership

Video Production & Journalism

Emphasis/Concentration Description

Video Production prepares students to harness the unprecedented power of video to effectively inform, educate, and entertain a broad spectrum of target audiences. Students will become technically excellent in creating content from project inception to client delivery across multiple platforms and channels.

It equips students for the real-world. Twenty-first century media is evolving at an unprecedented pace and video is central for many communication strategies.

Students will be able to analyze the creation of video content in professional and ethical ways, plan and create their own video products in answer to specific industry requirements, and create news pieces, advertisements, factual documentaries, and short narrative films.

Journalism provides real-world experience with journalism and news. Through the campus news organizations and courses, students get hands-on experience and build professional skills.

Students develop writing, video, editing, multimedia journalism, and production skills necessary to land a solid entry-level job in a variety of communication industries.

Students who graduate in communication with an emphasis in journalism get jobs in traditional and emerging news industries. They learn to be reporters and other non-fiction content creators. Many of our graduates also find employment in the emerging field of content marketing, freelance writing or creating non-fiction content for corporations or organizations. They also succeed in graduate school.

**Emphasis Core****26**

Total Credits



- Complete all of the following

Video Production

- Take the following:
 - [COMM260](#) - Video Principles and Practices (3)
 - [COMM265](#) - Video and Film Production Essentials (3)
 - [COMM362](#) - Broadcast Performance (3)
 - [COMM365](#) - Advanced Moving Image 1 (3)
 - [COMM497B](#) - Motion Graphic Software Practicum (1)

AND Journalism

- Take the following:
 - [COMM240](#) - Newsgathering Principles and Practices (3)
 - [COMM340](#) - Advanced Media Writing (3)
 - [COMM342](#) - Editing Essentials (3)
 - [COMM360](#) - Video Journalism (3)
 - [COMM397A](#) - Scroll Practicum (1)

Capstone**3**

Total Credits



- Take 1 of the following:

- [COMM465](#) - Advanced Moving Image 2 (3)
- [COMM440](#) - News in the 21st Century (3)

Grand Total Credits: 29

Video Production & Organizational Leadership



Video Production & Public Relations



Visual Communication & Public Relations





JOURNALISM & VISUAL COMMUNICATION

Organizational Leadership & Digital/Social Media

Organizational Leadership & Visual Communication

Public Relations & Digital/Social Media

Public Relations & Journalism

Public Relations & Organizational Leadership

Video Production & Journalism

Video Production & Organizational Leadership

Emphasis/Concentration Description

Video Production prepares students to harness the unprecedented power of video to effectively inform, educate, and entertain a broad spectrum of target audiences. Students will become technically excellent in creating content from project inception to client delivery across multiple platforms and channels.

It equips students for the real-world. Twenty-first century media is evolving at an unprecedented pace and video is central for many communication strategies.

Students will be able to analyze the creation of video content in professional and ethical ways, plan and create their own video products in answer to specific industry requirements, and create news pieces, advertisements, factual documentaries, and short narrative films.

Emphasis/Concentration Code

320

Emphasis/Concentration Course Requirements



- Video Production
- Take the following:
 - [COMM260](#) - Video Principles and Practices (3)
 - [COMM265](#) - Video and Film Production Essentials (3)
 - [COMM362](#) - Broadcast Performance (3)
 - [COMM365](#) - Advanced Moving Image 1 (3)
 - [COMM497B](#) - Motion Graphic Software Practicum (1)
 - AND Organizational Leadership
 - Take the following:
 - [COMM250](#) - Organizational Principles (3)
 - [COMM350](#) - Group Dynamics (3)
 - [COMM352](#) - Persuasion (3)
 - [COMM450](#) - Conflict Resolution and Negotiation (3)
 - [COMM397E](#) - Community Outreach Practicum (1)

Capstone**3**

Total Credits

- Take 1 of the following:
 - [COMM465](#) - Advanced Moving Image 2 (3)
 - [COMM470](#) - Strategic Communication and Social Change (3)

Grand Total Credits: 29

Video Production & Public Relations

Visual Communication & Public Relations

Visual Communication & Video Production





JOURNALISM & VISUAL COMMUNICATION

Organizational Leadership & Digital/Social Media

Organizational Leadership & Visual Communication

Public Relations & Digital/Social Media

Public Relations & Journalism

Public Relations & Organizational Leadership

Video Production & Journalism

Video Production & Organizational Leadership

Video Production & Public Relations

Emphasis/Concentration Description

Video Production prepares students to harness the unprecedented power of video to effectively inform, educate, and entertain a broad spectrum of target audiences. Students will become technically excellent in creating content from project inception to client delivery across multiple platforms and channels.

It equips students for the real-world. Twenty-first century media is evolving at an unprecedented pace and video is central for many communication strategies.

Students will be able to analyze the creation of video content in professional and ethical ways, plan and create their own video products in answer to specific industry requirements, and create news pieces, advertisements, factual documentaries, and short narrative films.

Public Relations prepares students for professional work in the public relations industry. Students will learn to establish effective relationships with key publics, as well as how to anticipate, analyze, and interpret public



Emphasis/Concentration Code

321

Emphasis/Concentration Course Requirements

Emphasis Core

26

Total Credits

- Complete all of the following
 - Video Production
 - Take the following:
 - [COMM260](#) - Video Principles and Practices (3)
 - [COMM265](#) - Video and Film Production Essentials (3)
 - [COMM362](#) - Broadcast Performance (3)
 - [COMM365](#) - Advanced Moving Image 1 (3)
 - [COMM497B](#) - Motion Graphic Software Practicum (1)
 - AND Public Relations
 - Take the following:
 - [COMM235](#) - PR Principles and Writing (3)
 - [COMM335](#) - Public Relations Research (3)
 - [COMM336](#) - Public Relations Design (3)
 - [COMM425](#) - Crisis Communication (3)
 - [COMM397J](#) - Public Relations Practicum (1)

Capstone

3

Total Credits

- Take 1 of the following:
 - [COMM465](#) - Advanced Moving Image 2 (3)
 - [COMM435](#) - Public Relation Campaigns (3)

Grand Total Credits: 29

Visual Communication & Public Relations

Visual Communication & Video Production



JOURNALISM & VISUAL COMMUNICATION

Organizational Leadership & Digital/Social Media

Organizational Leadership & Visual Communication

Public Relations & Digital/Social Media

Public Relations & Journalism

Public Relations & Organizational Leadership

Video Production & Journalism

Video Production & Organizational Leadership

Video Production & Public Relations

Visual Communication & Public Relations

Emphasis/Concentration Description

Visual Communication students gain marketable visual skills through project-based courses while creating portfolio work. Visual Communication students focus on developing the skills and thinking to strategically produce visuals that communicate a message. Students will learn to use industry standard software to apply design and composition principles to their design, photography, illustration, web design, and motion graphics. Students will learn to solve visual problems by implementing creative thinking processes. Graduates with this emphasis develop precise skills relevant to many levels and niches of industry.

Public Relations prepares students for professional work in the public relations industry. Students will learn to establish effective relationships with key publics, as well as how to anticipate, analyze, and interpret public



Emphasis/Concentration Code

322

Emphasis/Concentration Course Requirements

Emphasis Core**26**

Total Credits



- Complete all of the following

Visual Communication

- Take the following:

- [COMM300](#) - Digital Imaging (3)
- [COMM305](#) - Vector Graphics (3)
- [COMM310](#) - Creating Online Media (3)
- [COMM316](#) - Professional Imaging (3)
- [COMM397H](#) - Visual Emphasis Practicum (1)

AND Public Relations

- Take the following:

- [COMM235](#) - PR Principles and Writing (3)
- [COMM335](#) - Public Relations Research (3)
- [COMM336](#) - Public Relations Design (3)
- [COMM425](#) - Crisis Communication (3)
- [COMM397J](#) - Public Relations Practicum (1)

Capstone**3**

Total Credits



- Take 1 of the following:

- [COMM462](#) - Advanced Visual Media (3)
- [COMM435](#) - Public Relation Campaigns (3)

Grand Total Credits: 29

Visual Communication & Video Production





JOURNALISM & VISUAL COMMUNICATION

Organizational Leadership & Digital/Social Media

Organizational Leadership & Visual Communication

Public Relations & Digital/Social Media

Public Relations & Journalism

Public Relations & Organizational Leadership

Video Production & Journalism

Video Production & Organizational Leadership

Video Production & Public Relations

Visual Communication & Public Relations

Visual Communication & Video Production

Emphasis/Concentration Description

Visual Communication students gain marketable visual skills through project-based courses while creating portfolio work. Visual Communication students focus on developing the skills and thinking to strategically produce visuals that communicate a message. Students will learn to use industry standard software to apply design and composition principles to their design, photography, illustration, web design, and motion graphics.



It equips students for the real-world. Twenty-first century media is evolving at an unprecedented pace and video is central for many communication strategies.

Students will be able to analyze the creation of video content in professional and ethical ways, plan and create their own video products in answer to specific industry requirements, and create news pieces, advertisements, factual documentaries, and short narrative films.

Emphasis/Concentration Code

323

Emphasis/Concentration Course Requirements

Emphasis Core

26

Total Credits



- Complete all of the following

Visual Communication

- Take the following:
 - [COMM300](#) - Digital Imaging (3)
 - [COMM305](#) - Vector Graphics (3)
 - [COMM310](#) - Creating Online Media (3)
 - [COMM316](#) - Professional Imaging (3)
 - [COMM397H](#) - Visual Emphasis Practicum (1)

AND Video Production

- Take the following:
 - [COMM260](#) - Video Principles and Practices (3)
 - [COMM265](#) - Video and Film Production Essentials (3)
 - [COMM362](#) - Broadcast Performance (3)
 - [COMM365](#) - Advanced Moving Image 1 (3)
 - [COMM497B](#) - Motion Graphic Software Practicum (1)

Capstone

3

Total Credits



- Take 1 of the following:

- [COMM462](#) - Advanced Visual Media (3)
- [COMM465](#) - Advanced Moving Image 2 (3)

Grand Total Credits: 29



BYU-Idaho Academic Catalog

Communication (Major: Bachelor-Level)

Program Description



Prepares students for careers in Communications.

Program Code

675

Program Learning Outcomes (PLOs)

1. Communicate legally and ethically.
2. Model effective interaction in one-on-one and group settings.
3. Demonstrate effective presentation skills.
4. Write accurately, clearly and creatively.
5. Demonstrate media literacy.
6. Produce compelling visual media.
7. Implement industry-standard research methods.

Program Notes



- To graduate with a Bachelor's degree, a student must earn:



Program Course Requirements



General Education

39

Total Credits



- Take at least 39 credit(s) to complete one of the following program(s): [GE - BACH](#)

Core

26 - 27

Total Credits



- Take the following:
 - [COMM100](#) - Introduction to Communication (1)
 - [COMM102](#) - Public Speaking (3)
 - [COMM111](#) - Writing for Communication Career (3)
 - [COMM130](#) - Visual Media (3)
 - [COMM140](#) - Mass Media and Society (3)
 - [COMM150](#) - Interpersonal Theory and Practice (3)
 - [COMM273](#) - Professional Presentations (3)
 - [COMM280](#) - Communication Research Fundamentals (3)
 - [COMM307](#) - Ethics and Legal Issues (3)
 - [COMM498R](#) - Communication Internship (1 - 2)

Emphasis

29

Total Credits



- Take at least 29 credit(s) from one of the Emphasis options listed below.

Unspecified Electives

25

Total Credits



- Take at least 25 credit(s) from any eligible university credits.

In addition to courses meeting the requirements for this program, students can take other courses offered by the university, for which they meet the course eligibility requirements, to bring their total number of credits to the minimum of 120 credits required for graduation. Additional credits may also come from credits received through General Education courses.

Grand Total Credits: 119 - 120



BYU-Idaho Academic Catalog

Computer Engineering (Major: Bachelor-Level)

Program Description



The Computer Engineering program at BYU-Idaho balances the study of electrical and electronic theory (hardware) with the power of microprocessors and computing (software) to benefit humanity. Hands-on laboratory exercises supplement engineering theory with the practical skills that today's computer engineers need. Graduates of the program are routinely recruited for high-paying careers as engineers with a computing emphasis, while some choose the path of graduate school to further their education.

Program Code

450

Program Learning Outcomes (PLOs)

1. Identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. Apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. Communicate effectively with a range of audiences.
4. Recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. Function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. Develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.





- To graduate with a Bachelor's degree, a student must earn:
 - grades of C- or higher in major courses
 - a 2.0 cumulative GPA
 - a minimum of 120 cumulative credits
- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.
- The bachelor of science degree program in Computer Engineering is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>, under the commission's General Criteria and the Program Criteria for Computer Engineering.

Program Course Requirements



General Education

27

Total Credits



- Take at least 27 credit(s) to complete one of the following program(s): [GE - ABET](#)

Core

41

Total Credits



- Complete all of the following

- Take the following:
 - [CSE110](#) - Introduction to Programming (2)
 - [CSE111](#) - Programming with Functions (2)
 - [CSE121C](#) - C Language (1)
 - [CSE210](#) - Programming with Classes (2)
 - [CSE212](#) - Programming with Data Structures (2)
 - [CSE310](#) - Applied Programming (3)
 - [ECEN101](#) - Introduction to Electrical and Computer Engineering (1)
 - [ECEN150](#) - Electric Circuit Analysis I (3)
 - [ECEN240](#) - Fundamentals of Digital Systems (3)
 - [ECEN260](#) - Microprocessor Based-System Design (3)
 - [ECEN324](#) - Computer Architecture (3)
 - [ECEN340](#) - Digital Systems Design (3)
 - [ECEN350](#) - Electronic Devices and Circuits (3)
 - [ECEN361](#) - Embedded Systems (3)
 - [ECEN499](#) - Senior Project (3)

AND

- Take 4 credit(s) from:
 - [ECEN250](#) - Electric Circuit Analysis II (3)



- Complete all of the following
 - Take 3 of the following:
 - [CSE450](#) - Machine Learning (3)
 - [ECEN311](#) - Introduction to Electrical Power and Rotating Machines (3)
 - [ECEN351](#) - VLSI System Design (3)
 - [ECEN380](#) - Signals and Systems (3)
 - [ECEN390](#) - Electromagnetics (3)
 - [ECEN411](#) - Power Systems Analysis (3)
 - [ECEN420](#) - RF Circuits (3)
 - [ECEN430](#) - Signal and Power Integrity (3)
 - [ECEN451](#) - Semiconductor Device Engineering (3)
 - [ECEN461](#) - Advanced Embedded Systems (3)
 - [ECEN470](#) - Feedback Control of Dynamic Systems (3)
 - [ECEN480](#) - Digital Signal Processing (3)
 - [ECEN490R](#) - Special Topics (3)
 - [ME310](#) - Mechatronics and Measurement Systems II (3)
 - [ME410](#) - Autonomous Control of Dynamic Systems (3)
 - No double counting

Experiential Learning**1 - 7**

Total Credits



- Complete 1 of the following
 - Option 1: Internship
 - Take the following:
 - [ECEN398R](#) - Internship (1)
 - Option 2: Professional Preparation
 - Complete all of the following
 - Take the following:
 - [ECEN397](#) - Professional Career Preparation (1)
 - AND
 - Take 2 of the following:
 - [CSE450](#) - Machine Learning (3)
 - [ECEN311](#) - Introduction to Electrical Power and Rotating Machines (3)
 - [ECEN351](#) - VLSI System Design (3)
 - [ECEN380](#) - Signals and Systems (3)
 - [ECEN390](#) - Electromagnetics (3)
 - [ECEN411](#) - Power Systems Analysis (3)
 - [ECEN420](#) - RF Circuits (3)
 - [ECEN430](#) - Signal and Power Integrity (3)

[ECE1100 - Special Topics \(3\)](#)

- [ME310](#) - Mechatronics and Measurement Systems II (3)
- [ME410](#) - Autonomous Control of Dynamic Systems (3)
- No double counting

Foundational Math**4 - 9**

Total Credits



- Complete 1 of the following

Option 1:

- Take the following:
 - [MATH112X](#) - Calculus I (4)

Option 2:

- Take the following:
 - [MATH109](#) - Precalculus (5)
 - [MATH112X](#) - Calculus I (4)

Option 3:

- Take the following:
 - [MATH110X](#) - College Algebra (3)
 - [MATH111](#) - Trigonometry (2)
 - [MATH112X](#) - Calculus I (4)

Math and Science**27**

Total Credits



- Complete all of the following

- Take 13 credit(s) from:

- [CHEM105](#) - General Chemistry I (3)
- [CHEM105L](#) - General Chemistry Laboratory I (1)
- [CSE280](#) - Discrete Mathematics (3)
- [PH121](#) - Principles of Physics I (3)
- [PH123](#) - Principles of Physics II (3)
- [PH150](#) - Beginning Physics Lab (1)

AND

- Take 3 credit(s) from:

- [MATH221A](#) - Business Statistics (3)
- [MATH221B](#) - Biostatistics (3)
- [MATH221C](#) - Social Science Statistics (3)
- [MATH221D](#) - Introductory Statistics with R (3)
- [MATH330](#) - Engineering Statistics (3)

AND

- Take 3 credit(s) from:



- [BIO180L](#) - Introduction to Biology I Lab (1)
- [BIO181](#) - Introduction to Biology II (3)
- [BIO181L](#) - Introduction to Biology II Lab (1)
- [BIO221](#) - General Microbiology (3)
- [BIO222](#) - General Microbiology Lab (1)
- [BIO240](#) - Neurobiology (4)
- [BIO264](#) - Human Anatomy and Physiology I (3)
- [BIO264L](#) - Human Anatomy and Physiology I Lab (1)
- [CHEM106](#) - General Chemistry II (3)
- [CHEM106L](#) - General Chemistry Laboratory II (1)
- [GEOL111](#) - Physical Geology (3)
- [GEOL111L](#) - Physical Geology Lab (1)
- [GEOL112](#) - Historical Geology (4)
- [GEOL404](#) - Environmental Geology (3)
- [GEOL435](#) - Groundwater Hydrology (3)
- [MATH113](#) - Calculus II (3)
- [MATH214](#) - Multivariable and Vector Calculus (3)
- [MATH215](#) - Multivariable Calculus (4)
- [MATH316](#) - Differential Equations with Linear Algebra (4)
- [MATH411](#) - Numerical Analysis I (3)
- [MATH423](#) - Probability and Statistics (3)
- [PH220](#) - Principles of Physics III (3)
- [PH250](#) - Intermediate Physics Lab (1)

Unspecified Electives

0



Total Credits

- In addition to courses meeting the requirements for this program, students can take other courses offered by the university, for which they meet the course eligibility requirements, to bring their total number of credits to the minimum of 120 credits required for graduation. Additional credits may also come from credits received through General Education courses.

Grand Total Credits: 109 - 120

Degree

Bachelor of Science (BS)

Department

Department of Computer Science and Engineering



Program Notes

NEW

- To graduate with a Bachelor's degree, a student must earn:
 - grades of C- or higher in major courses
 - a 2.0 cumulative GPA
 - a minimum of 120 cumulative credits
- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.
- The bachelor of science degree program in Computer Engineering is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>, under the commission's General Criteria and the Program Criteria for Computer Engineering.

OLD

- To graduate with a Bachelor's degree, a student must earn:
 - grades of C- or higher in major courses
 - a 2.0 cumulative GPA
 - a minimum of 120 cumulative credits
- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.
- The Bachelor of Science degree program in Computer Engineering is accredited by the Engineering Accreditation Commission of ABET, <https://www.abet.org>, under the General Criteria and the Computer Engineering Program Criteria.



BYU-Idaho Academic Catalog

Computer Programming (Minor)

Program Description



The Computer Programming Minor provides a solid foundation in all aspects of computer programming. Students will be taught problem-solving skills that will allow them to debug and correct software system errors.

Program Code

264

Program Notes



- No grade less than C- in Minor courses.

Program Course Requirements



Introductory Core

8 - 9

Total Credits



- Complete all of the following
 - Take the following:
 - [CYBER201](#) - Cybersecurity Fundamentals (2)



- [ECEN106](#) - Computer Systems (2)
- [GIS250](#) - Spatial Analysis (3)
- [ITM111](#) - Introduction to Databases (3)

Core**12**

Total Credits



- Take the following:
 - [CSE110](#) - Introduction to Programming (2)
 - [CSE111](#) - Programming with Functions (2)
 - [CSE210](#) - Programming with Classes (2)
 - [CSE212](#) - Programming with Data Structures (2)
 - [CSE300](#) - Professional Readiness (1)
 - [CSE310](#) - Applied Programming (3)

Grand Total Credits: 20 - 21**Department**

Department of Computer Science and Engineering

Call or Text 208-496-1411**ask@byui.edu**



BYU-Idaho Academic Catalog

Computer Science (Major: Bachelor-Level)

Program Description



Computer scientists tackle some of the most interesting and challenging problems of our time, including developing massive-scale applications in the cloud, highly-reliable systems, and artificial intelligence. To be a successful computer scientist, you need an excellent understanding of both programming and algorithms, so you know not only the how but also the why of computing.

The Computer Science degree gives students a broad, deep, balanced understanding of computing including cutting edge technologies and skills in preparation to work in any area of the computing industry.

As a computer science student at BYU-Idaho, you first engage in a wide variety of experiences that help you develop core skills in programming, algorithms, and computing. Then you will explore advanced topics in machine learning and massively parallel computation. After successfully completing this program, you will be ready for a career in a variety of computing areas, including software development, data science, system analysis, or research.

Program Code

440

Program Learning Outcomes (PLOs)

1. Apply principles of discrete mathematics to analyze and solve problems.
2. Apply principles of calculus to analyze and solve problems.
3. Mathematically calculate and analyze algorithmic complexity.
4. Demonstrate proficiency in multiple programming languages and paradigms.





-
9. Apply database design principles to solve problems.
 10. Demonstrate proficiency using command-line interfaces and file system navigation.
 11. Demonstrate proficiency in modern software deployment.
 12. Apply system architectural patterns to design scalable systems.
 13. Apply software engineering principles.
 14. Demonstrate understanding of software development lifecycles.
 15. Demonstrate the value of testing and write tests to validate code.
 16. Apply secure coding practices to mitigate security risks.
 17. Demonstrate how to act ethically, as a disciple of Jesus Christ, in the context of Computer Science.
 18. Demonstrate the traits of an effective team member.
 19. Demonstrate initiative and self-reliance in learning.
 20. Communicate effectively with a range of audiences.
 21. Gain foundational knowledge in at least two computing disciplines.
 22. Create innovative products that add value.
 23. Relate personal technical contributions to bigger picture, real-world problems.

Program Notes



- To graduate with a Bachelor's degree, a student must earn:
 - grades of C- or higher in major courses
 - a 2.0 cumulative GPA
 - a minimum of 120 cumulative credits
- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.

Program Course Requirements



General Education

39

Total Credits



- Take at least 39 credit(s) to complete one of the following program(s): [GE - BACH](#)

Computing Fundamentals

11





- [ITM220](#) - SQL (3)
- [WDD130](#) - Web Fundamentals (2)
- [WDD131](#) - Dynamic Web Fundamentals (2)

Introductory Core**4**

Total Credits



- Take the following:
 - [CSE110](#) - Introduction to Programming (2)
 - [CSE111](#) - Programming with Functions (2)

Intermediate Core**8**

Total Credits



- Take the following:
 - [CSE210](#) - Programming with Classes (2)
 - [CSE212](#) - Programming with Data Structures (2)
 - [CSE300](#) - Professional Readiness (1)
 - [CSE310](#) - Applied Programming (3)

Core**26**

Total Credits



- Complete all of the following
 - Take 1 of the following:
 - [MATH112X](#) - Calculus I (4)
 - [MATH119](#) - Applied Calculus for Data Analysis (4)
 - AND
 - Take 2 credit(s) from:
 - [CSE199R](#) - Freshman Discovery Project (1 - 2)
 - AND
 - Take the following:
 - [CSE280](#) - Discrete Mathematics (3)
 - [CSE351](#) - Parallelism and Concurrency (2)
 - [CSE370](#) - Software Engineering Principles (2)
 - [CSE381](#) - Algorithms and Complexity (3)
 - [CSE382](#) - Patterns and Data Structures (3)
 - [CSE399R](#) - Product Development Project (2)
 - [DS250](#) - Data Science Programming (2)
 - [ITM300](#) - Cloud Foundations (3)



- [CSE450 - Machine Learning](#) (3)
- [CSE481 - Massively Parallel Computation](#) (3)
- [CSE490R - Special Topics](#) (3)
- [CSE498R - Internship II](#) (1 - 4)
- [DS460 - Big Data Programming and Analytics](#) (3)

Experiential Learning**1 - 4**

Total Credits



- Take 1 of the following:
 - [CSE397 - Professional Career Project](#) (3)
 - [CSE398 - Internship](#) (1 - 4)

Unspecified Electives**22**

Total Credits



- Take at least 22 credit(s) from any eligible university credits.

In addition to courses meeting the requirements for this program, students can take other courses offered by the university, for which they meet the course eligibility requirements, to bring their total number of credits to the minimum of 120 credits required for graduation. Additional credits may also come from credits received through General Education courses.

Grand Total Credits: 117 - 120**Degree**

Bachelor of Science (BS)

Department

Department of Computer Science and Engineering





BYU-Idaho Academic Catalog

Computer Science (Minor)

Program Description



The Computer Science Minor helps students develop a strong foundation in Computer Science. It can complement other standard degrees or be used as part of an interdisciplinary studies program.

Program Code

147

Program Notes



- No grade less than C- in Minor courses.

Program Course Requirements



Core

12

Total Credits

- Take the following:
 - [CSE110](#) - Introduction to Programming (2)
 - [CSE111](#) - Programming with Functions (2)
 - [CSE210](#) - Programming with Classes (2)



**Supplemental Courses**

Total Credits

- Take 11 credit(s) from:
 - [CSE280](#) - Discrete Mathematics (3)
 - [CSE351](#) - Parallelism and Concurrency (2)
 - [CSE381](#) - Algorithms and Complexity (3)
 - [CSE382](#) - Patterns and Data Structures (3)

Grand Total Credits: 23**Department**

Department of Computer Science and Engineering

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BYU-Idaho Academic Catalog

Computing Fundamentals (Cluster)

Program Description



Computing Fundamentals provides practical skills in a breadth of areas in computing including: Programming, Technical Teamwork, Security, Data, Web, and Circuits. These skills are valuable for people in computing majors, but they also complement any program of study on campus.

Program Code

7001

Program Course Requirements



Core Courses

13 - 14

Total Credits



- Complete all of the following
 - Take the following:
 - [CSE100](#) - Introduction to Computing (1)
 - [CSE110](#) - Introduction to Programming (2)
 - [CSE170](#) - Introduction to Technical Teamwork (2)
 - [CYBER201](#) - Cybersecurity Fundamentals (2)
 - [ECEN106](#) - Computer Systems (2)
 - [WDD130](#) - Web Fundamentals (2)





Grand Total Credits: 13 - 14

Department

Department of Computer Science and Engineering

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Devotionals

Campus Map



BYU-Idaho Academic Catalog

Construction Field Supervision (Certificate)

Program Description



Prepare current construction craftsmen to assume construction supervisory responsibilities.

Program Code

C126

Program Learning Outcomes (PLOs)

1. Develop management tools to ensure compliance with construction safety laws and regulations.
2. Create construction project cost estimate.
3. Create construction project schedule.

Program Notes



- To be awarded an academic certificate independent of a bachelor's or an associate degree, a student must earn:
 - grades of C- or higher in required courses
 - a minimum certificate program grade point average of 2.0
- Completion of this certificate does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.

Total Credits

- Take the following:
 - [CONST221](#) - Construction Safety (3)
 - [CONST305](#) - Construction Estimating (3)
 - [CONST315](#) - Field Scheduling (3)
 - [CONST380](#) - Project Management (2)
 - [VDC170](#) - Plan Reading (1)
 - [VDC370](#) - Contract Documents (2)

Grand Total Credits: 14

Department

Department of Design and Construction Management



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BYU-Idaho Academic Catalog

Construction Management (Major: Bachelor-Level)

Program Description

^

The Bachelor of Science degree in Construction Management provides students with a comprehensive understanding of the principles and practices involved in successfully managing construction projects. Through a combination of coursework and practical experiences, students develop strong technical knowledge in areas such as construction methods, estimating, scheduling, cost control, and safety regulations. The program emphasizes the application of effective project management techniques, critical thinking, and communication skills to ensure projects are completed on time, within budget, and to the highest quality standards. Graduates of this program are well-prepared for a range of careers in the construction industry, including project management, estimating, site supervision, and construction consulting, among others, making meaningful contributions to the dynamic and ever-growing field of construction management.

Program Code

605

Program Learning Outcomes (PLOs)

1. Create written communication appropriate to the construction discipline.
2. Create oral presentations appropriate to the construction discipline.
3. Collaborate effectively within a team environment.
4. Develop management tools to ensure compliance with construction safety laws and regulations.
5. Create an accurate construction cost estimate.
6. Effectively schedule project activities.



-
11. Analyze professional decisions based on ethical principles.
 12. Apply basic surveying techniques for construction layout and control.
 13. Identify the basic principles of building systems.
 14. Evaluate a construction problem and develop a possible solution.
 15. Evaluate disciple leadership principles.

Program Notes



- To graduate with a Bachelor's degree, a student must earn:
 - grades of C- or higher in major courses
 - a 2.0 cumulative GPA
 - a minimum of 120 cumulative credits
- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.

Program Course Requirements



General Education

39

Total Credits

- Take at least 39 credit(s) to complete one of the following program(s): [GE - BACH](#)

Core

51

Total Credits

- Take the following:
 - [CONST105](#) - Survey of Virtual Design and Construction Management (1)
 - [CONST120](#) - Framing Systems (3)
 - [CONST221](#) - Construction Safety (3)
 - [CONST235](#) - Building Systems (4)
 - [CONST260](#) - Statics and Strength of Materials (3)
 - [CONST305](#) - Construction Estimating (3)
 - [CONST311](#) - Construction BIM (3)
 - [CONST315](#) - Field Scheduling (3)
 - [CONST340](#) - Land Surveying (3)
 - [CONST350](#) - Soils (3)
 - [CONST355](#) - Construction Materials (4)



- CONST100 - Capstone Construction Principles (2)

- [VDC170](#) - Plan Reading (1)
- [VDC190](#) - Building Information Modeling I (3)
- [VDC370](#) - Contract Documents (2)

Component(s) **14 - 24**

Total Credits



- Complete 1 of the following

Business Fundamentals Certificate

- Take at least 14 credit(s) to complete one of the following program(s): [C105](#)

Business Management Minor

- Take at least 24 credit(s) to complete one of the following program(s): [250](#)

Experiential Learning**2**

Total Credits



- Take the following:

- [CONST298R](#) - Beginning Internship (1)
- [CONST498R](#) - Construction Internship (1)

Unspecified Electives**4**

Total Credits



- Take at least 4 credit(s) from any eligible university credits.

In addition to courses meeting the requirements for this program, students can take other courses offered by the university, for which they meet the course eligibility requirements, to bring their total number of credits to the minimum of 120 credits required for graduation. Additional credits may also come from credits received through General Education courses.

Grand Total Credits: 110 - 120

Degree

Bachelor of Science (BS)

Department

Department of Design and Construction Management



BYU-Idaho Academic Catalog

Construction Superintendence (Major: Associate-Level)

Program Description

^

The Associate Degree in Construction Superintendence is designed to prepare students for leadership roles in the construction industry. This program provides a solid foundation in construction management principles, technical skills, and practical experience necessary for supervising construction projects. Students will learn to manage construction sites, coordinate with various stakeholders, and ensure projects are completed on time and within budget. This degree is ideal for individuals seeking to advance their careers in construction management and take on supervisory roles within the industry.

Program Code

391

Program Learning Outcomes (PLOs)

1. Create written communications appropriate to the construction discipline.
2. Create oral presentations appropriate to the construction discipline.
3. Collaborate effectively within a team environment.
4. Develop management tools to ensure compliance with construction safety laws and regulations.
5. Create an accurate construction cost estimate.
6. Effectively schedule project activities.
7. Apply electronic-based technology to manage the construction process.
8. Understand construction project control processes.



-
- 13. Identify the basic principles of building systems.
 - 14. Evaluate a construction problem and develop a possible solution.
 - 15. Evaluate disciple leadership principles.

Program Notes



- To graduate with an associate degree, a student must earn:
 - grades of C- or higher in major courses
 - a 2.0 cumulative GPA
 - a minimum of 60 cumulative credits
- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.

Program Course Requirements



General Education

18

Total Credits



- Take at least 18 credit(s) to complete one of the following program(s): [GE - AAS](#)

Core

7

Total Credits



- Take the following:
 - [CONST105](#) - Survey of Virtual Design and Construction Management (1)
 - [CONST260](#) - Statics and Strength of Materials (3)
 - [VDC190](#) - Building Information Modeling I (3)

Component(s)

34

Total Credits



- Complete all of the following
 - Construction Field Certificate
 - Take at least 14 credit(s) to complete one of the following program(s): [C126](#)
 - Construction Technology Minor
 - Take at least 20 credit(s) to complete one of the following program(s): [258](#)



- [CONST290K - Beginning Internship \(1\)](#)
- [CONST499 - Capstone: Construction Principles \(2\)](#)

Grand Total Credits: 62

Degree

Associate of Applied Science (AAS)

Department

Department of Design and Construction Management



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BYU-Idaho Academic Catalog

Construction Technology (Minor)

Program Description



The Minor in Construction Management is designed to provide students with a comprehensive understanding of the principles and practices involved in managing construction projects. This program equips students with the technical knowledge and practical skills necessary to excel in the construction industry. The curriculum covers a range of topics from framing and finishing systems to land surveying and construction materials. This minor is ideal for students who wish to enhance their major with specialized knowledge in construction management, preparing them for careers in construction project management, site supervision, and related fields.

Program Code

258

Program Learning Outcomes (PLOs)

Program Notes



- No grade less than C- in required courses.

Program Course Requirements



- Take the following:
 - [CONST120](#) - Framing Systems (3)
 - [CONST235](#) - Building Systems (4)
 - [CONST340](#) - Land Surveying (3)
 - [CONST350](#) - Soils (3)
 - [CONST355](#) - Construction Materials (4)

AND

- Take 1 of the following:
 - [CONST210](#) - Finishing Systems (3)
 - [CONST391](#) - Construction Scheduling (3)
 - [CONST400](#) - Advanced Estimating and Bidding (3)

Grand Total Credits: 20

Department

Department of Design and Construction Management



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BYU-Idaho Academic Catalog

Cybersecurity (Certificate)

Program Description



This certificate prepares individuals for information security careers, to protect computer systems, networks, and data from unauthorized access, use, disclosure, disruption, modification, or destruction. The certificate is designed to provide students with a basic understanding of the foundations of cybersecurity and practical skills for defending against cyberattacks.

Program Code

C190

Program Learning Outcomes (PLOs)

1. Identify core components of IT systems.
2. Demonstrate competency with modern cybersecurity issues and concepts.
3. Engage with stakeholders to break down business goals into technology solutions.

Program Notes



- To be awarded an academic certificate independent of a bachelor's or an associate degree, a student must earn:
 - grades of C- or higher in required courses
 - a minimum certificate program grade point average of 2.0



**Certificate Core****14**

Total Credits



- Complete all of the following
 - Take the following:
 - [CSE111](#) - Programming with Functions (2)
 - [CYBER240](#) - Networking (3)
 - [CYBER301](#) - Systems Security I (3)
 - [CYBER360](#) - Advanced Scripting (3)
 - AND
 - Take 1 of the following:
 - [CYBER370](#) - Security Assessment (3)
 - [CYBER375](#) - Security Analysis and Operations (3)

Grand Total Credits: 14**Department**

Department of Computer Science and Engineering

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BYU-Idaho Academic Catalog

Cybersecurity (Major: Bachelor-Level)

Program Description



This degree prepares individuals for information security careers where they will protect computer systems, networks, and data from unauthorized access, use, disclosure, disruption, modification, or destruction. The program is designed to provide students with a comprehensive understanding of the theoretical foundations of cybersecurity and practical skills for defending against cyberattacks.

Program Code

688

Program Learning Outcomes (PLOs)

1. Identify core components of IT systems.
2. Demonstrate competency with modern cybersecurity issues and concepts.
3. Engage with stakeholders to break down business goals into technology solutions.
4. Qualify for an industry recognized advanced certification in cybersecurity.
5. Simulate real-world cyber-attacks to identify and exploit vulnerabilities in computer systems to improve their security posture.
6. Implement cybersecurity countermeasures to protect computer systems, networks, and data from cyber threats.
7. Acquire the competence to effectively administer identity, access management, and privacy protocols using industry best practices.
8. Synthesize the components of IT systems to balance both functionality and security.





- grades of C- or higher in major courses
- a 2.0 cumulative GPA
- a minimum of 120 cumulative credits
- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.

Program Course Requirements



General Education

39

Total Credits



- Take at least 39 credit(s) to complete one of the following program(s): [GE - BACH](#)

Component(s)

27

Total Credits



- Complete all of the following
 - IT Fundamentals Certificate
 - Take at least 13 credit(s) to complete one of the following program(s): [C199](#)
 - Cybersecurity Certificate
 - Take at least 14 credit(s) to complete one of the following program(s): [C190](#)

Core

36 - 39

Total Credits



- Complete all of the following
 - Take the following:
 - [BUS200](#) - Small Business Management (3)
 - [BUS321](#) - Organizational Leadership (3)
 - [CSE170](#) - Introduction to Technical Teamwork (2)
 - [CSE300](#) - Professional Readiness (1)
 - [CYBER370](#) - Security Assessment (3)
 - [CYBER375](#) - Security Analysis and Operations (3)
 - [CYBER450](#) - Identity and Access Management (3)
 - [CYBER470](#) - Systems Security II (3)
 - [ITM300](#) - Cloud Foundations (3)
 - [ITM350](#) - IT Management and DevOps (3)
 - [ITM398R](#) - Internship (1 - 3)
 - [WDD131](#) - Dynamic Web Fundamentals (2)

AND



- [CYBER341](#) - Network Design II (3)
- [ITM400](#) - Cloud Architecture (4)
- [ITM450](#) - DevOps II (3)

Experiential Learning**1 - 3**

Total Credits



- Complete 1 of the following

Option 1:

- Take 1 of the following:
 - [ITM295R](#) - Portfolio Service Project (1)
 - [ITM298R](#) - Introductory Internship (1 - 3)

Option 2:

- Take 1 of the following:
 - [CSE199C](#) - Freshman Discovery Project (Cybersecurity) (1 - 2)
 - [CSE199R](#) - Freshman Discovery Project (1 - 2)

AND

- Take 1 of the following:
 - [CSE399C](#) - Product Development Project (Cybersecurity) (2)
 - [CSE399R](#) - Product Development Project (2)

Unspecified Electives**12**

Total Credits



- Take at least 12 credit(s) from any eligible university credits.

In addition to courses meeting the requirements for this program, students can take other courses offered by the university, for which they meet the course eligibility requirements, to bring their total number of credits to the minimum of 120 credits required for graduation. Additional credits may also come from credits received through General Education courses.

Grand Total Credits: 115 - 120

Degree

Bachelor of Science (BS)

Department

Department of Computer Science and Engineering





BYU-Idaho Academic Catalog

Database (Certificate)

Program Description



This certificate provides students with an employability level of knowledge and skills in developing and administering modern database technologies.

Program Code

C116

Program Learning Outcomes (PLOs)

1. Utilize SQL and Query to communicate with databases.
2. Design a transaction entity relationship model.
3. Work with user-defined code objects in a database.
4. Provision flexible data environments aligning to business initiatives.
5. Demonstrate ability to work with big data and supporting environments.

Program Notes



- To be awarded an academic certificate independent of a bachelor's or an associate degree, a student must earn:





Program Course Requirements



Certificate Core

13 - 14



Total Credits

- Complete all of the following
 - Take the following:
 - [CSE110](#) - Introduction to Programming (2)
 - [ITM220](#) - SQL (3)
 - AND
 - Take 3 of the following:
 - [DS250](#) - Data Science Programming (2)
 - [ITM310](#) - Applied Cloud Computing (3)
 - [ITM325](#) - Database Programming (3)
 - [ITM326](#) - Database Administration (3)
 - Course Not Found

Grand Total Credits: 13 - 14

Department

Department of Computer Science and Engineering





BYU-Idaho Academic Catalog

Digital and Social Media (Minor)

Program Description



The Digital and Social Media minor equips students with the essential skills and knowledge to excel in today's dynamic digital landscape. This program offers hands-on experience and theoretical understanding across various key areas, ensuring students are well-prepared for careers in digital marketing, advertising, social media management, content creation, and social media analytics, allowing students to become valuable assets in any industry that leverages digital platforms.

Program Code

285

Program Learning Outcomes (PLOs)

1. Design digital media strategies.
2. Execute digital media strategies.
3. Measure digital media strategies.
4. Demonstrate current knowledge in digital media platforms and tools.

Program Notes



- No grade less than C- in Minor courses.
- No double counting of courses within the Minor.





Program Course Requirements

**Core****24**

Total Credits



- Complete all of the following
 - Take 12 credit(s) from:
 - [COMM102](#) - Public Speaking (3)
 - [COMM111](#) - Writing for Communication Career (3)
 - [COMM130](#) - Visual Media (3)
 - [COMM140](#) - Mass Media and Society (3)
 - [COMM150](#) - Interpersonal Theory and Practice (3)

AND

 - Take the following:
 - [COMM222](#) - Digital Media Brand Strategy (3)
 - [COMM315](#) - Design for Social Media (3)
 - [COMM320](#) - Digital Media Content Creation (3)
 - [COMM322](#) - Digital Media Analytics and Strategy (3)

Grand Total Credits: 24Department

Department of Communication



BYU-Idaho Academic Catalog

Digital Imaging (Cluster)

Program Description

A cluster of courses (12-15 credits) designed to prepare students in Digital Imaging, supplemental to a major.

Program Code

2214

Program Course Requirements

Core Courses

12

Total Credits

- Complete all of the following
 - Take the following:
 - [COMM130](#) - Visual Media (3)
 - AND
 - Take 9 credit(s) from:
 - [COMM300](#) - Digital Imaging (3)
 - [COMM305](#) - Vector Graphics (3)
 - [COMM316](#) - Professional Imaging (3)



BYU-Idaho Academic Catalog

Early Childhood Education/Early Childhood Special Education (Major: Bachelor-Level)

Program Description



The Early Childhood Education/Early Childhood Special Education (ECE/ECSE) blended program prepares students to work with children who are typically developing and those children with special needs from birth through age eight. Students who successfully complete this program will be eligible to apply for the Blended Early Childhood/Early Childhood Special Education Idaho Teaching License, which allows them to teach general or special education classes in preschool through third grade in Idaho and older grades in some states. Students may also choose to work in Early Intervention with toddlers and their families in their homes. Applied coursework and fieldwork involving children in a variety of settings will prepare students for successful career experiences. Students will demonstrate knowledge, understanding, and application of skills during five student teaching experiences with: (1) infants, (2) toddlers, (3) preschoolers, (4) kindergartners, and (5) first through third-grade children in public schools (general education and special education).

Program Code

980

Program Learning Outcomes (PLOs)

1. Emulate teaching in the Savior's way to empower learners to reach their divine potential.
2. Design developmentally appropriate learning experiences for children across developmental and curricular domains.
3. Collaborate with families to evaluate assessments, create individualized plans, and effectively share findings and interventions.
4. Foster inclusive learning environments where curriculum is accessible, and all students are welcome.

- To graduate with a Bachelor's degree, a student must earn:
 - grades of C- or higher in major courses
 - a 2.0 cumulative GPA
 - a minimum of 120 cumulative credits
- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.
- All state-required exams and coursework must be completed before taking EDCOR492.
- Students are encouraged to take SCIED259 Integrated Science for the Natural Science Module in Breadth Courses since helps them with the PRAXIS requirement.
- Students are encouraged to take MATH 108X Math for the Real World, for the Quantitative Reasoning Requirement of the General Education for Teacher Preparation Programs. It is encouraged that students majoring in Early Childhood Education/Early Childhood Special Education take ENG 301 Advanced Writing and Research for the Writing requirement.

Program Course Requirements



General Education

33

Total Credits



- Take at least 33 credit(s) to complete one of the following program(s): [GE - TEACH](#)

Core

56

Total Credits



- Take the following:
 - [CHILD210](#) - Child Development (3)
 - [ECSE341](#) - Principles and Practices of Early Intervention (2)
 - [ECSE350A](#) - Early Childhood Curriculum and Fundamentals for Toddlers (2)
 - [ECSE350L](#) - Experience with Toddlers (3)
 - [ECSE360A](#) - Early Childhood Curriculum and Fundamentals for Preschool (2)
 - [ECSE360L](#) - Early Childhood: Teaching Preschool Children (3)
 - [ECSE421](#) - Family and Community Relationships (2)
 - [ECSE425](#) - Strategies for ECSE (4)
 - [ED245](#) - Early Field Practicum (2)
 - [ED246](#) - Elementary Education Motivation and Classroom Leadership (2)
 - [ED345](#) - Idaho Comprehensive Literacy #2 (3)
 - [ED346E](#) - Elementary Literacy Practicum (2)
 - [ED405](#) - Elementary STEM Methods 1 (2)
 - [ED406](#) - STEM Methods (2)
 - [ED444](#) - Elementary Social Studies Methods (2)
 - [MATH205](#) - Mathematical Reasoning for Teachers 1 (3)

Education Core

30



Total Credits

- Take the following:
 - [EDCOR200](#) - Teaching as a Profession (2)
 - [EDCOR310](#) - Educational Psychology and Human Development (3)
 - [EDCOR320](#) - Assessment Methods and Analysis (2)
 - [EDCOR325](#) - Instructional Methods and Technology (3)
 - [EDCOR340](#) - Diverse and Exceptional Students (3)
 - [EDCOR365](#) - Idaho Comprehensive Literacy #1 (3)
 - [EDCOR465](#) - Language Arts Methods (2)
 - [EDCOR480](#) - Management and Professional Ethics (2)
 - [EDCOR492](#) - Student Teaching (10)

Unspecified Electives

1



Total Credits

- Take at least 1 credit(s) from any eligible university credits.

In addition to courses meeting the requirements for this program, students can take other courses offered by the university, for which they meet the course eligibility requirements, to bring their total number of credits to the minimum of 120 credits required for graduation. Additional credits may also come from credits received through General Education courses.

Grand Total Credits: 120

Degree

Bachelor of Science (BS)

Department

Department of Elementary, Early, and Special Education



BYU-Idaho Academic Catalog

Early Intervention (Minor)

Program Description



Prepares students to work with children with special needs from birth through age three. Students will be engaged in applied coursework and fieldwork involving children in a variety of settings that qualify the student to work with children in a home setting. This minor meets Idaho state regulations for students desiring to become a Development Specialist/Early Interventionist and does not result in a teaching license.

Program Code

269

Program Notes



- No grade less than C- in Minor courses.

Program Course Requirements



Core Courses

20

Total Credits



- Take the following:
 - [ECSE350A](#) - Early Childhood Curriculum and Fundamentals for Toddlers (2)



- SPED310 - Exceptional Students in Grade 3 (3)
- o SPED424 - Assessment and Evaluation (4)

Grand Total Credits: 20

Department

Department of Elementary, Early, and Special Education

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Campus Map

BYU-Idaho Academic Catalog

Economics (Major: Bachelor-Level)

Program Description

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Economics is first and foremost a way of thinking critically about how personal, business, financial, government policy, and other life decisions are made and improved. The economic way of thinking employs structured economic models and methods combined with analytical reasoning and technical expertise. When combined, these provide well-developed analytical skills suitable for research analysis and problem-solving related to business operations, personal choice, market operations, financial investments, government policy development and assessment, and other decisions and challenges that arise in a dynamic economic environment and global society. Successful graduates work in teams to achieve desired research and project outcomes, and they communicate their analysis results professionally in both academic and business settings. At BYU-Idaho, the gospel of Jesus Christ helps inform economic decisions in a fully integrated and immersive way, including a commitment to decisions with long-term benefits and ethical and (not just legal) business practices.

Program Code

720

Program Learning Outcomes (PLOs)

1. Demonstrate well-developed analytical skills, specifically in terms of critical reasoning and technical expertise.
2. Conduct research and demonstrate necessary skills that are relevant for employment or graduate studies in economics, business, or related fields.
3. Demonstrate professional written and verbal communication skills that allow them to present the results of their analysis and research in a clear and convincing manner.
4. Lead, accept responsibility, and work effectively as team members within an organization.

- To graduate with a Bachelor's degree, a student must earn:
 - grades of C- or higher in major courses
 - a 2.0 cumulative GPA
 - a minimum of 120 cumulative credits
- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.
- When a student completes 60 credits, their track will be changed to Fall/Winter.
- MATH 112X or ECON 215 fulfills the General Education Quantitative Reasoning requirement.

Program Course Requirements



General Education

39

Total Credits



- Take at least 39 credit(s) to complete one of the following program(s): [GE - BACH](#)

Introductory Core

15 - 27

Total Credits



- Complete all of the following

- Take 1 of the following:

- [ACCTG233](#) - Spreadsheet Application (1)
 - [BUS115](#) - Business Applications (3)
 - [CIT110](#) - Introduction to Excel (3)
 - [ME142](#) - Engineering Computation (3)

AND

- Take the following:
 - [ECON151](#) - Economic Principles and Problems-Macro (3)
 - [ECON201](#) - Professional Exploration and Orientation (1)

AND

- Take 1 of the following:
 - [AGBUS210](#) - Agricultural Economics (3)
 - [ECON150](#) - Economic Principles and Problems-Micro (3)

Introductory Core 2

- Complete 1 of the following

Option 1:

- Take the following:
 - [ECON278](#) - Statistics for Economists (3)

Option 2:

- Take the following:



- [MATH109](#) - Precalculus (5)
- Option 4:
 - Take the following:
 - [MATH221A](#) - Business Statistics (3)
 - [MATH325](#) - Intermediate Statistics (3)
- Introductory Core 3
- Complete 1 of the following
 - Option 1:
 - Take the following:
 - [ECON215](#) - Quantitative Methods (4)
 - Option 2:
 - Take the following:
 - [MATH112X](#) - Calculus I (4)
 - Option 3:
 - Take the following:
 - [ECON215](#) - Quantitative Methods (4)
 - [MATH110X](#) - College Algebra (3)
 - Option 4:
 - Take the following:
 - [ECON215](#) - Quantitative Methods (4)
 - [MATH109](#) - Precalculus (5)
 - Option 5:
 - Take the following:
 - [MATH109](#) - Precalculus (5)
 - [MATH112X](#) - Calculus I (4)
 - Option 6:
 - Take the following:
 - [MATH110X](#) - College Algebra (3)
 - [MATH111](#) - Trigonometry (2)
 - [MATH112X](#) - Calculus I (4)

Core Courses

16

Total Credits



- Take the following:
 - [ECON330](#) - Economic Thought and History (3)
 - [ECON380](#) - Intermediate Microeconomics (3)
 - [ECON381](#) - Intermediate Macroeconomics (3)
 - [ECON388](#) - Introduction to Econometrics (3)
 - [ECON398R](#) - Professional Internship (1)
 - [ECON499](#) - Senior Capstone (3)

Quantitative Analysis Module

- Take the following:
 - [BA315](#) - Business Analytics (3)
 - [ITM220](#) - SQL (3)
 - [CSE110](#) - Introduction to Programming (2)
 - [CSE111](#) - Programming with Functions (2)

Economics Module

- Take 9 credit(s) from:
 - [ECON357](#) - Environmental and Natural Resource Economics (3)
 - [ECON358](#) - International Economics (3)
 - [ECON360](#) - Behavioral Economics (3)
 - [ECON365](#) - Health Economics (3)
 - [ECON390R](#) - Special Projects (1 - 3)
 - [ECON440](#) - Law and Economics (3)
 - [ECON463](#) - Labor Economics (3)
 - [ECON475](#) - Public Economics (3)
 - [ECON476](#) - Industrial Organization (3)

Unspecified Electives

19

Total Credits



- Take at least 19 credit(s) from any eligible university credits.

In addition to courses meeting the requirements for this program, students can take other courses offered by the university, for which they meet the course eligibility requirements, to bring their total number of credits to the minimum of 120 credits required for graduation. Additional credits may also come from credits received through General Education courses.

Grand Total Credits: 108 - 120

Degree

Bachelor of Science (BS)

Department

Department of Economics



BYU-Idaho Academic Catalog

Economics (Minor)

Program Description



A group of courses (20-24 credits) designed to encourage focused learning in Economics, complementary to an integrated standard degree or as an element of an interdisciplinary studies degree.

Program Code

149

Program Notes



- No grade less than C- in required courses.

Program Course Requirements



Introductory Core

6

Total Credits



- Complete all of the following
 - Take the following:
 - [ECON151](#) - Economic Principles and Problems-Macro (3)

**Core****3 - 8**

Total Credits



- Complete 1 of the following

Option 1:

- Take the following:
 - [ECON278](#) - Statistics for Economists (3)

Option 2:

- Take the following:
 - [ECON278](#) - Statistics for Economists (3)
 - [MATH110X](#) - College Algebra (3)

Option 3:

- Take the following:
 - [ECON278](#) - Statistics for Economists (3)
 - [MATH109](#) - Precalculus (5)

Option 4:

- Take the following:
 - [MATH221A](#) - Business Statistics (3)
 - [MATH325](#) - Intermediate Statistics (3)

Math Core**4 - 9**

Total Credits



- Complete 1 of the following

Option 1:

- Take the following:
 - [ECON215](#) - Quantitative Methods (4)

Option 2:

- Take the following:
 - [MATH112X](#) - Calculus I (4)

Option 3:

- Take the following:
 - [ECON215](#) - Quantitative Methods (4)
 - [MATH110X](#) - College Algebra (3)

Option 4:

- Take the following:
 - [ECON215](#) - Quantitative Methods (4)
 - [MATH109](#) - Precalculus (5)

Option 5:

- Take the following:
 - [MATH109](#) - Precalculus (5)
 - [MATH112X](#) - Calculus I (4)

Electives**9**

Total Credits



- Take 9 credit(s) from:
 - [ECON255](#) - Financial Analytics (3)
 - [ECON300](#) - Managerial Economics (3)
 - [ECON330](#) - Economic Thought and History (3)
 - [ECON353](#) - Money and Banking (3)
 - [ECON355](#) - Investment Analysis (3)
 - [ECON357](#) - Environmental and Natural Resource Economics (3)
 - [ECON358](#) - International Economics (3)
 - [ECON365](#) - Health Economics (3)
 - [ECON380](#) - Intermediate Microeconomics (3)
 - [ECON381](#) - Intermediate Macroeconomics (3)
 - [ECON388](#) - Introduction to Econometrics (3)
 - [ECON390R](#) - Special Projects (1 - 3)
 - [ECON398R](#) - Professional Internship (1)
 - [ECON440](#) - Law and Economics (3)
 - [ECON455](#) - Financial Economics (3)
 - [ECON463](#) - Labor Economics (3)
 - [ECON475](#) - Public Economics (3)
 - [ECON476](#) - Industrial Organization (3)

Grand Total Credits: 22 - 32**Department**

Department of Economics





BYU-Idaho Academic Catalog

Electrical and Computer Engineering (Major: Associate-Level)

Program Description



The A.A.S. in Electrical and Computer Engineering provides a solid foundation in basic computer and electronic systems. This includes knowledge and skills in computer programming, computer system design, and analog electronics. Students will be taught problem solving skills that will allow them to debug and correct electronic system errors.

Program Code

384

Program Learning Outcomes (PLOs)

1. Use the techniques, skills, and modern engineering tools necessary for engineering practice.
2. Maintain a broad and rigorous understanding of the fundamentals of electrical/computer engineering.
3. Possess well developed design and problem-solving skills.
4. Continually develop and learn.
5. Possess strong communication and interpersonal skills.
6. Make a positive difference in their family, their workplace, and their community.

Program Notes





- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.

Program Course Requirements



General Education

18

Total Credits



- Take at least 18 credit(s) to complete one of the following program(s): [GE - AAS](#)

Core

34

Total Credits



- Complete all of the following

- Take the following:
 - [CHEM105](#) - General Chemistry I (3)
 - [CHEM105L](#) - General Chemistry Laboratory I (1)
 - [CSE110](#) - Introduction to Programming (2)
 - [CSE111](#) - Programming with Functions (2)
 - [CSE121C](#) - C Language (1)
 - [CSE210](#) - Programming with Classes (2)
 - [CSE212](#) - Programming with Data Structures (2)
 - [ECEN101](#) - Introduction to Electrical and Computer Engineering (1)
 - [ECEN150](#) - Electric Circuit Analysis I (3)
 - [ECEN240](#) - Fundamentals of Digital Systems (3)
 - [ECEN250](#) - Electric Circuit Analysis II (3)
 - [ECEN260](#) - Microprocessor Based-System Design (3)
 - [ECEN299](#) - Electronic Circuit Fabrication and Evaluation Lab (1)
 - [PH121](#) - Principles of Physics I (3)

AND

- Take 4 credit(s) from:
 - [BIO180L](#) - Introduction to Biology I Lab (1)
 - [BIO181](#) - Introduction to Biology II (3)
 - [BIO181L](#) - Introduction to Biology II Lab (1)
 - [BIO221](#) - General Microbiology (3)
 - [BIO222](#) - General Microbiology Lab (1)
 - [BIO240](#) - Neurobiology (4)
 - [BIO264](#) - Human Anatomy and Physiology I (3)
 - [CHEM106](#) - General Chemistry II (3)
 - [CHEM106L](#) - General Chemistry Laboratory II (1)



- [MATH130](#) Differential Equations with Linear Algebra (3)

- o [PH220](#) - Principles of Physics III (3)
- o [PH250](#) - Intermediate Physics Lab (1)

Unspecified Electives**8**

Total Credits



- Take at least 8 credit(s) from any eligible University credits.

In addition to courses meeting the requirements for this program, students can take other courses offered by the university, for which they meet the course eligibility requirements, to bring their total number of credits to the minimum of 60 credits required for graduation.

Grand Total Credits: 60**Degree**

Associate of Applied Science (AAS)

Department

Department of Computer Science and Engineering

Call or Text 208-496-1411**ask@byui.edu**



BYU-Idaho Academic Catalog

Electrical and Computer Engineering (Minor)

Program Description



A group of courses (20-24 credits) designed to encourage focused learning in Electrical and Computer Engineering, complementary to an integrated standard degree or as an element of an interdisciplinary studies degree.

Program Code

245

Program Notes



- No grade less than C- in Minor courses.

Program Course Requirements



Core

21

Total Credits

- Take the following:
 - [CSE110](#) - Introduction to Programming (2)
 - [CSE111](#) - Programming with Functions (2)
 - [CSE121C](#) - C Language (1)





- ECEN250 - Electric Circuit Analysis II (3)

- [ECEN260](#) - Microprocessor Based-System Design (3)
- [ECEN299](#) - Electronic Circuit Fabrication and Evaluation Lab (1)

Grand Total Credits: 21

Department

Department of Computer Science and Engineering

Call or Text 208-496-1411

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Devotionals



BYU-Idaho Academic Catalog

Electrical Engineering (Major: Bachelor-Level)

Program Description



The Electrical Engineering program at BYU-Idaho prepares the graduate to use electricity and electronics in novel ways to improve the lives of people around the world. Hands-on laboratory exercises supplement engineering theory with the practical skills that today's electrical engineers need. Graduates of the program are routinely recruited for high paying careers as electrical engineers while others choose the path of graduate school to further their education.

Program Code

445

Program Learning Outcomes (PLOs)

1. Identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. Apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3. Communicate effectively with a range of audiences.
4. Recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. Function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6. Develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.





- To graduate with a Bachelor's degree, a student must earn:
 - grades of C- or higher in major courses
 - a 2.0 cumulative GPA
 - a minimum of 120 cumulative credits
- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.
- The bachelor of science degree program in Electrical Engineering is accredited by the Engineering Accreditation Commission of ABET, <https://www.abet.org>, under the General Criteria and the Electrical Engineering Program Criteria.

Program Course Requirements



General Education

27

Total Credits



- Take at least 27 credit(s) to complete one of the following program(s): [GE - ABET](#)

Core

38

Total Credits



- Complete all of the following

- Take the following:

- [CSE110](#) - Introduction to Programming (2)
- [CSE111](#) - Programming with Functions (2)
- [CSE121C](#) - C Language (1)
- [CSE210](#) - Programming with Classes (2)
- [CSE212](#) - Programming with Data Structures (2)
- [ECEN101](#) - Introduction to Electrical and Computer Engineering (1)
- [ECEN150](#) - Electric Circuit Analysis I (3)
- [ECEN240](#) - Fundamentals of Digital Systems (3)
- [ECEN260](#) - Microprocessor Based-System Design (3)
- [ECEN340](#) - Digital Systems Design (3)
- [ECEN350](#) - Electronic Devices and Circuits (3)
- [ECEN380](#) - Signals and Systems (3)
- [ECEN390](#) - Electromagnetics (3)
- [ECEN499](#) - Senior Project (3)

AND

- Take 4 credit(s) from:
 - [ECEN250](#) - Electric Circuit Analysis II (3)



- Complete all of the following
 - Note: No double counting
 - Take 4 of the following:
 - [CSE450](#) - Machine Learning (3)
 - [ECEN311](#) - Introduction to Electrical Power and Rotating Machines (3)
 - [ECEN324](#) - Computer Architecture (3)
 - [ECEN351](#) - VLSI System Design (3)
 - [ECEN361](#) - Embedded Systems (3)
 - [ECEN411](#) - Power Systems Analysis (3)
 - [ECEN420](#) - RF Circuits (3)
 - [ECEN430](#) - Signal and Power Integrity (3)
 - [ECEN451](#) - Semiconductor Device Engineering (3)
 - [ECEN461](#) - Advanced Embedded Systems (3)
 - [ECEN470](#) - Feedback Control of Dynamic Systems (3)
 - [ECEN480](#) - Digital Signal Processing (3)
 - [ECEN490R](#) - Special Topics (3)
 - [ME310](#) - Mechatronics and Measurement Systems II (3)
 - [ME410](#) - Autonomous Control of Dynamic Systems (3)

Experiential Learning**1 - 7**

Total Credits



- Complete 1 of the following
 - Option 1: Internship
 - Complete all of the following
 - Note: No double counting
 - Take the following:
 - [ECEN398R](#) - Internship (1)
 - Option 2: Professional Preparation
 - Complete all of the following
 - Take the following:
 - [ECEN397](#) - Professional Career Preparation (1)
 - AND
 - Take 2 of the following:
 - [CSE450](#) - Machine Learning (3)
 - [ECEN311](#) - Introduction to Electrical Power and Rotating Machines (3)
 - [ECEN324](#) - Computer Architecture (3)
 - [ECEN351](#) - VLSI System Design (3)
 - [ECEN361](#) - Embedded Systems (3)



- [ECEN451 - Advanced Embedded Systems](#) (3)
 - [ECEN470 - Feedback Control of Dynamic Systems](#) (3)
 - [ECEN480 - Digital Signal Processing](#) (3)
 - [ECEN490R - Special Topics](#) (3)
 - [ME310 - Mechatronics and Measurement Systems II](#) (3)
 - [ME410 - Autonomous Control of Dynamic Systems](#) (3)

Foundational Math**4 - 9**

Total Credits



- Complete 1 of the following

Option 1:

- Take the following:
 - [MATH112X - Calculus I](#) (4)

Option 2:

- Take the following:
 - [MATH109 - Precalculus](#) (5)
 - [MATH112X - Calculus I](#) (4)

Option 3:

- Take the following:
 - [MATH110X - College Algebra](#) (3)
 - [MATH111 - Trigonometry](#) (2)
 - [MATH112X - Calculus I](#) (4)

Math and Science Courses**27**

Total Credits



- Complete all of the following

- Take 4 credit(s) from:
 - [MATH113 - Calculus II](#) (3)
 - [MATH214 - Multivariable and Vector Calculus](#) (3)
 - [MATH215 - Multivariable Calculus](#) (4)

AND

- Take 20 credit(s) from:
 - [CHEM105 - General Chemistry I](#) (3)
 - [CHEM105L - General Chemistry Laboratory I](#) (1)
 - [MATH316 - Differential Equations with Linear Algebra](#) (4)
 - [MATH330 - Engineering Statistics](#) (3)
 - [PH121 - Principles of Physics I](#) (3)
 - [PH123 - Principles of Physics II](#) (3)
 - [PH150 - Beginning Physics Lab](#) (1)



- [BIO181](#) - Introduction to Biology II (3)
- [BIO181L](#) - Introduction to Biology II Lab (1)
- [BIO221](#) - General Microbiology (3)
- [BIO222](#) - General Microbiology Lab (1)
- [BIO240](#) - Neurobiology (4)
- [BIO264](#) - Human Anatomy and Physiology I (3)
- [BIO264L](#) - Human Anatomy and Physiology I Lab (1)
- [CHEM106](#) - General Chemistry II (3)
- [CHEM106L](#) - General Chemistry Laboratory II (1)
- [CSE280](#) - Discrete Mathematics (3)
- [GEOL111](#) - Physical Geology (3)
- [GEOL111L](#) - Physical Geology Lab (1)
- [GEOL112](#) - Historical Geology (4)
- [GEOL404](#) - Environmental Geology (3)
- [GEOL435](#) - Groundwater Hydrology (3)
- [MATH341](#) - Linear Algebra (3)
- [MATH411](#) - Numerical Analysis I (3)
- [MATH423](#) - Probability and Statistics (3)
- [PH250](#) - Intermediate Physics Lab (1)

Unspecified Electives

0

Total Credits



- In addition to courses meeting the requirements for this program, students can take other courses offered by the university, for which they meet the course eligibility requirements, to bring their total number of credits to the minimum of 120 credits required for graduation. Additional credits may also come from credits received through General Education courses.

Grand Total Credits: 109 - 120

Degree

Bachelor of Science (BS)

Department

Department of Computer Science and Engineering



Changes Since 2025-2026 BYU-Idaho Catalog Publication

**NEW****General Education****27**

Total Credits

**Core****38**

Total Credits



- Complete all of the following

- Take the following:
 - [CSE110](#) - Introduction to Programming (2)
 - [CSE111](#) - Programming with Functions (2)
 - [CSE121C](#) - C Language (1)
 - [CSE210](#) - Programming with Classes (2)
 - [CSE212](#) - Programming with Data Structures (2)
 - [ECEN101](#) - Introduction to Electrical and Computer Engineering (1)
 - [ECEN150](#) - Electric Circuit Analysis I (3)
 - [ECEN240](#) - Fundamentals of Digital Systems (3)
 - [ECEN260](#) - Microprocessor Based-System Design (3)
 - [ECEN340](#) - Digital Systems Design (3)
 - [ECEN350](#) - Electronic Devices and Circuits (3)
 - [ECEN380](#) - Signals and Systems (3)
 - [ECEN390](#) - Electromagnetics (3)
 - [ECEN499](#) - Senior Project (3)

AND

- Take 4 credit(s) from:
 - [ECEN250](#) - Electric Circuit Analysis II (3)
 - [ECEN299](#) - Electronic Circuit Fabrication and Evaluation Lab (1)

Supplemental Courses**12**

Total Credits



- Complete all of the following

- Note: No double counting
 - Take 4 of the following:
 - [CSE450](#) - Machine Learning (3)
 - [ECEN311](#) - Introduction to Electrical Power and Rotating Machines (3)
 - [ECEN324](#) - Computer Architecture (3)

[ECEN150 - Signal and Power Integrity \(3\)](#)

- [ECEN451](#) - Semiconductor Device Engineering (3)
- [ECEN461](#) - Advanced Embedded Systems (3)
- [ECEN470](#) - Feedback Control of Dynamic Systems (3)
- [ECEN480](#) - Digital Signal Processing (3)
- [ECEN490R](#) - Special Topics (3)
- [ME310](#) - Mechatronics and Measurement Systems II (3)
- [ME410](#) - Autonomous Control of Dynamic Systems (3)

Experiential Learning**1 - 7**

Total Credits



- Complete 1 of the following

Option 1: Internship

- Complete all of the following
 - Note: No double counting
 - Take the following:
 - [ECEN398R](#) - Internship (1)

Option 2: Professional Preparation

- Complete all of the following
 - Take the following:
 - [ECEN397](#) - Professional Career Preparation (1)
 - AND
 - Take 2 of the following:
 - [CSE450](#) - Machine Learning (3)
 - [ECEN311](#) - Introduction to Electrical Power and Rotating Machines (3)
 - [ECEN324](#) - Computer Architecture (3)
 - [ECEN351](#) - VLSI System Design (3)
 - [ECEN361](#) - Embedded Systems (3)
 - [ECEN411](#) - Power Systems Analysis (3)
 - [ECEN420](#) - RF Circuits (3)
 - [ECEN430](#) - Signal and Power Integrity (3)
 - [ECEN451](#) - Semiconductor Device Engineering (3)
 - [ECEN461](#) - Advanced Embedded Systems (3)
 - [ECEN470](#) - Feedback Control of Dynamic Systems (3)
 - [ECEN480](#) - Digital Signal Processing (3)
 - [ECEN490R](#) - Special Topics (3)
 - [ME310](#) - Mechatronics and Measurement Systems II (3)
 - [ME410](#) - Autonomous Control of Dynamic Systems (3)



- Option 1:
- Take the following:
 - [MATH112X](#) - Calculus I (4)
- Option 2:
- Take the following:
 - [MATH109](#) - Precalculus (5)
 - [MATH112X](#) - Calculus I (4)
- Option 3:
- Take the following:
 - [MATH110X](#) - College Algebra (3)
 - [MATH111](#) - Trigonometry (2)
 - [MATH112X](#) - Calculus I (4)

Math and Science Courses **27**
Total Credits



- Complete all of the following
 - Take 4 credit(s) from:
 - [MATH113](#) - Calculus II (3)
 - [MATH214](#) - Multivariable and Vector Calculus (3)
 - [MATH215](#) - Multivariable Calculus (4)

AND

 - Take 20 credit(s) from:
 - [CHEM105](#) - General Chemistry I (3)
 - [CHEM105L](#) - General Chemistry Laboratory I (1)
 - [MATH316](#) - Differential Equations with Linear Algebra (4)
 - [MATH330](#) - Engineering Statistics (3)
 - [PH121](#) - Principles of Physics I (3)
 - [PH123](#) - Principles of Physics II (3)
 - [PH150](#) - Beginning Physics Lab (1)
 - [PH220](#) - Principles of Physics III (3)

AND

 - Take 3 credit(s) from:
 - [BIO180](#) - Introduction to Biology I (3)
 - [BIO180L](#) - Introduction to Biology I Lab (1)
 - [BIO181](#) - Introduction to Biology II (3)
 - [BIO181L](#) - Introduction to Biology II Lab (1)
 - [BIO221](#) - General Microbiology (3)
 - [BIO222](#) - General Microbiology Lab (1)
 - [BIO240](#) - Neurobiology (4)
 - [BIO264](#) - Human Anatomy and Physiology I (3)



- [GEOL111 - Physical Geology](#) (3)
 - [GEOL111L - Physical Geology Lab](#) (1)
 - [GEOL112 - Historical Geology](#) (4)
 - [GEOL404 - Environmental Geology](#) (3)
 - [GEOL435 - Groundwater Hydrology](#) (3)
 - [MATH341 - Linear Algebra](#) (3)
 - [MATH411 - Numerical Analysis I](#) (3)
 - [MATH423 - Probability and Statistics](#) (3)
 - [PH250 - Intermediate Physics Lab](#) (1)

Unspecified Electives**0**

Total Credits



- In addition to courses meeting the requirements for this program, students can take other courses offered by the university, for which they meet the course eligibility requirements, to bring their total number of credits to the minimum of 120 credits required for graduation. Additional credits may also come from credits received through General Education courses.

Grand Total Credits: 109 - 120**OLD****General Education****27**

Total Credits



- Take at least 27 credit(s) to complete one of the following program(s): [GE - ABET](#)

Core**38**

Total Credits



- Complete all of the following
 - Take the following:
 - [CSE110 - Introduction to Programming](#) (2)
 - [CSE111 - Programming with Functions](#) (2)
 - [CSE121C - C Language](#) (1)
 - [CSE210 - Programming with Classes](#) (2)
 - [CSE212 - Programming with Data Structures](#) (2)
 - [ECEN101 - Introduction to Electrical and Computer Engineering](#) (1)
 - [ECEN150 - Electric Circuit Analysis I](#) (3)
 - [ECEN240 - Fundamentals of Digital Systems](#) (3)
 - [ECEN260 - Microprocessor Based-System Design](#) (3)
 - [ECEN340 - Digital Systems Design](#) (3)



- Take 4 credit(s) from:
 - [ECEN250](#) - Electric Circuit Analysis II (3)
 - [ECEN299](#) - Electronic Circuit Fabrication and Evaluation Lab (1)

Supplemental Courses**12**

Total Credits



- Complete all of the following
 - Note: No double counting
 - Take 4 of the following:
 - [CSE450](#) - Machine Learning (3)
 - [ECEN311](#) - Introduction to Electrical Power and Rotating Machines (3)
 - [ECEN324](#) - Computer Architecture (3)
 - [ECEN351](#) - VLSI System Design (3)
 - [ECEN361](#) - Embedded Systems (3)
 - [ECEN411](#) - Power Systems Analysis (3)
 - [ECEN420](#) - RF Circuits (3)
 - [ECEN430](#) - Signal and Power Integrity (3)
 - [ECEN451](#) - Semiconductor Device Engineering (3)
 - [ECEN461](#) - Advanced Embedded Systems (3)
 - [ECEN470](#) - Feedback Control of Dynamic Systems (3)
 - [ECEN480](#) - Digital Signal Processing (3)
 - [ECEN490R](#) - Special Topics (3)
 - [ME310](#) - Mechatronics and Measurement Systems II (3)
 - [ME410](#) - Autonomous Control of Dynamic Systems (3)

Experiential Learning**1 - 7**

Total Credits



- Complete 1 of the following
 - Option 1: Internship
 - Complete all of the following
 - Note: No double counting
 - Take the following:
 - [ECEN398R](#) - Internship (1)
 - Option 2: Professional Preparation
 - Complete all of the following
 - Take the following:
 - [ECEN397](#) - Professional Career Preparation (1)



- [ECEN351](#) - VLSI System Design (3)
- [ECEN361](#) - Embedded Systems (3)
- [ECEN411](#) - Power Systems Analysis (3)
- [ECEN420](#) - RF Circuits (3)
- [ECEN430](#) - Signal and Power Integrity (3)
- [ECEN451](#) - Semiconductor Device Engineering (3)
- [ECEN461](#) - Advanced Embedded Systems (3)
- [ECEN470](#) - Feedback Control of Dynamic Systems (3)
- [ECEN480](#) - Digital Signal Processing (3)
- [ECEN490R](#) - Special Topics (3)
- [ME310](#) - Mechatronics and Measurement Systems II (3)
- [ME410](#) - Autonomous Control of Dynamic Systems (3)

Foundational Math**4 - 9**

Total Credits



- Complete 1 of the following

Option 1:

- Take the following:
 - [MATH112X](#) - Calculus I (4)

Option 2:

- Take the following:
 - [MATH109](#) - Precalculus (5)
 - [MATH112X](#) - Calculus I (4)

Option 3:

- Take the following:
 - [MATH110X](#) - College Algebra (3)
 - [MATH111](#) - Trigonometry (2)
 - [MATH112X](#) - Calculus I (4)

Math and Science Courses**27**

Total Credits



- Complete all of the following

- Take 4 credit(s) from:
 - [MATH113](#) - Calculus II (3)
 - [MATH214](#) - Multivariable and Vector Calculus (3)
 - [MATH215](#) - Multivariable Calculus (4)

AND

- Take 20 credit(s) from:



[Principles of Physics I \(3\)](#)

- [PH123](#) - Principles of Physics II (3)
- [PH150](#) - Beginning Physics Lab (1)
- [PH220](#) - Principles of Physics III (3)

AND

- Take 3 credit(s) from:
- [BIO180](#) - Introduction to Biology I (3)
- [BIO180L](#) - Introduction to Biology I Lab (1)
- [BIO181](#) - Introduction to Biology II (3)
- [BIO181L](#) - Introduction to Biology II Lab (1)
- [BIO221](#) - General Microbiology (3)
- [BIO222](#) - General Microbiology Lab (1)
- [BIO240](#) - Neurobiology (4)
- [BIO264](#) - Human Anatomy and Physiology I (3)
- [BIO264L](#) - Human Anatomy and Physiology I Lab (1)
- [CHEM106](#) - General Chemistry II (3)
- [CHEM106L](#) - General Chemistry Laboratory II (1)
- [CSE280](#) - Discrete Mathematics (3)
- [GEOL111](#) - Physical Geology (3)
- [GEOL111L](#) - Physical Geology Lab (1)
- [GEOL112](#) - Historical Geology (4)
- [GEOL404](#) - Environmental Geology (3)
- [GEOL435](#) - Groundwater Hydrology (3)
- [MATH341](#) - Linear Algebra (3)
- [MATH411](#) - Numerical Analysis I (3)
- [MATH423](#) - Probability and Statistics (3)
- [PH250](#) - Intermediate Physics Lab (1)

Unspecified Electives

0

Total Credits



- any eligible university credits. In addition to courses meeting the requirements for this program, students can take other courses offered by the university, for which they meet the course eligibility requirements, to bring their total number of credits to the minimum of 120 credits required for graduation. Additional credits may also come from credits received through General Education courses.

Grand Total Credits: 109 - 120

Program Notes

NEW



- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.
- The bachelor of science degree program in Electrical Engineering is accredited by the Engineering Accreditation Commission of ABET, <https://www.abet.org>, under the General Criteria and the Electrical Engineering Program Criteria.

OLD

- To graduate with a Bachelor's degree, a student must earn:
 - grades of C- or higher in major courses
 - a 2.0 cumulative GPA
 - a minimum of 120 cumulative credits
- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.
- The Bachelor of Science degree program in Electrical Engineering is accredited by the Engineering Accreditation Commission of ABET, <https://www.abet.org>, under the General Criteria and the Electrical Engineering Program Criteria.

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BYU-Idaho Academic Catalog

Elementary Education (Major: Bachelor-Level)

Program Description



Elementary Education teachers are uniquely skilled in designing and delivering instruction to engage children in the learning process. The Elementary Education major prepares candidates to provide children with the foundational skills necessary to continue learning throughout their lives and empowers young learners to reach their divine potential.

Program Code

990

Program Learning Outcomes (PLOs)

1. Demonstrate knowledge of K-8 subject content (math, social studies, science, literacy/language development).
2. Demonstrate proficiency in the evidence-based methods of teaching elementary subject areas (math, social studies, science, literacy/language development).
3. Apply knowledge of learner development and cognitive processes to plan effective instruction.
4. Apply knowledge of learning differences to differentiate instruction.
5. Implement classroom management and behavior support.
6. Utilize formative and summative assessments to improve instruction and develop interventions.
7. Integrate technology into instruction to enhance learning.
8. Display the professional dispositions of a Disciple of Jesus Christ.



- grades of C- or higher in major courses
- a 2.0 cumulative GPA
- a minimum of 120 cumulative credits
- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.
- All state-required exams and coursework must be completed before taking EDCOR 492.

Program Course Requirements



General Education

33

Total Credits



- Take at least 33 credit(s) to complete one of the following program(s): [GE - TEACH](#)

Education Core

30

Total Credits



- Take the following:
 - [EDCOR200](#) - Teaching as a Profession (2)
 - [EDCOR310](#) - Educational Psychology and Human Development (3)
 - [EDCOR320](#) - Assessment Methods and Analysis (2)
 - [EDCOR325](#) - Instructional Methods and Technology (3)
 - [EDCOR340](#) - Diverse and Exceptional Students (3)
 - [EDCOR365](#) - Idaho Comprehensive Literacy #1 (3)
 - [EDCOR465](#) - Language Arts Methods (2)
 - [EDCOR480](#) - Management and Professional Ethics (2)
 - [EDCOR492](#) - Student Teaching (10)

Core

35

Total Credits



- Take the following:
 - [ED245](#) - Early Field Practicum (2)
 - [ED246](#) - Elementary Education Motivation and Classroom Leadership (2)
 - [ED345](#) - Idaho Comprehensive Literacy #2 (3)
 - [ED346E](#) - Elementary Literacy Practicum (2)
 - [ED405](#) - Elementary STEM Methods 1 (2)
 - [ED406](#) - STEM Methods (2)
 - [ED444](#) - Elementary Social Studies Methods (2)
 - [ED449](#) - Elementary Senior Practicum (6)



Component(s) **20 - 25**
Total Credits

- Complete 1 of the following
 - English Education Minor
 - Take at least 25 credit(s) to complete one of the following program(s): [134](#)
 - History Education Minor
 - Take at least 23 credit(s) to complete one of the following program(s): [114](#)
 - Literacy Education Minor
 - Take at least 20 credit(s) to complete one of the following program(s): [270](#)
 - Mathematics Education Minor
 - Take at least 20 credit(s) to complete one of the following program(s): [120](#)
 - Special Education Generalist K-8 Minor
 - Take at least 24 credit(s) to complete one of the following program(s): [280](#)
 - TESOL Education Minor
 - Take at least 21 credit(s) to complete one of the following program(s): [195](#)
 - Spanish Education Minor
 - Take at least 21 credit(s) to complete one of the following program(s): [188](#)

Grand Total Credits: 118 - 123

Degree

Bachelor of Science (BS)

Department

Department of Elementary, Early, and Special Education

BYU-Idaho Academic Catalog

Elementary Education (Minor)

Program Description ^

Provides in-depth knowledge in literacy, science, technology, engineering, and mathematics (STEM) methodologies, classroom technology integration, and working with diverse learners. The minor includes a practicum experience supervised by faculty. The Elementary Education minor does not meet the requirements for a teaching certificate.

Program Code

268

Program Notes ^

- No grade less than C- in Minor courses.

Program Course Requirements ^

Core

20

Total Credits

- Take the following:
 - [ED211](#) - Technology for the 21st Century Classroom (2)
 - [ED245](#) - Early Field Practicum (2)





- EDUC4100 - Language Arts Methods (2)
- [ED444](#) - Elementary Social Studies Methods (2)
 - [SPED310](#) - Exceptional Students: P-Grade 6 (3)

Grand Total Credits: 20

Department

Department of Elementary, Early, and Special Education

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Devotionals



BYU-Idaho Academic Catalog

Embedded Systems (Certificate)

Program Description



This certificate provides students with an understanding of how to design and develop programs for dedicated embedded devices.

Program Code

C168

Program Learning Outcomes (PLOs)

1. Read a code segment and predict the outcome/output.
2. Find a defect in existing code.
3. Qualitatively evaluate the pros and cons of alternative solutions.
4. Utilize a systematic approach to writing code.
5. Understand basic digital circuits and how they work.
6. Understand how hardware/software interfaces work.
7. Be on the path to becoming self-reliant learners.
8. Work effectively as a self-reliant programmer.





earn:

- grades of C- or higher in required courses
- a minimum certificate program grade point average of 2.0
- Completion of this certificate does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.

Program Course Requirements



Certificate Core

13

Total Credits



- Take the following:
 - [CSE121C - C Language](#) (1)
 - [ECEN240 - Fundamentals of Digital Systems](#) (3)
 - [ECEN260 - Microprocessor Based-System Design](#) (3)
 - [ECEN324 - Computer Architecture](#) (3)
 - [ECEN361 - Embedded Systems](#) (3)

Grand Total Credits: 13

Department

Department of Computer Science and Engineering

BYU-Idaho Academic Catalog

Engineering Technology (Major: Associate-Level)

Program Description



The 2-year associate program in Engineering Technology (380) is designed as a transfer associate degree whereby students transfer to a 4-year university to complete their education. Common engineering technology programs include manufacturing, welding, design, and mechanical engineering technology. The associate program in Engineering Technology is available to students on any track.

Program Code

380

Program Learning Outcomes (PLOs)

1. Apply knowledge of fundamental math, science, and engineering principles. (Fundamentals)
2. Use the techniques, skills, and modern engineering tools necessary for engineering practice. (Engineering Tools)
3. Communicate effectively in both oral and written format. (Communication)
4. Design components, systems, or processes necessary to meet product specifications and design constraints. (Design Concepts)
5. Demonstrate an understanding of modern manufacturing processes. (Mfg Processes)
6. Function well within a multidisciplinary team (Team Work)



Program Notes



- grades of C or higher in major courses

- a 2.0 cumulative GPA

- a minimum of 60 cumulative credits

- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.
- MATH112X needs to be taken to satisfy a major requirement as well as the General Education Quantitative Reasoning requirement.
- If MATH 113 is taken, MATH 214 must be taken as well. Students may choose between ME 305 or ECEN 150.

Program Course Requirements



General Education

18



Total Credits

- Take at least 18 credit(s) to complete one of the following program(s): [GE - AAS](#)

Core

32 - 33



Total Credits

- Complete all of the following

Chemistry Core

- Take 1 of the following:

- [CHEM101](#) - Introductory Chemistry (3)
- [CHEM105](#) - General Chemistry I (3)

Mathematics Core

- Complete 1 of the following

- Take the following:
 - [MATH110X](#) - College Algebra (3)
 - [MATH111](#) - Trigonometry (2)
- Take the following:
 - [MATH109](#) - Precalculus (5)

Engineering Technology Core

- Take the following:

- [MATH112X](#) - Calculus I (4)
- [ME142](#) - Engineering Computation (3)
- [ME172](#) - Parametric Mechanical CAD (3)
- [ME201](#) - Engineering Mechanics: Statics (3)
- [ME202](#) - Strength of Materials (3)
- [MET231](#) - Manufacturing Processes I (2)
- [ME250](#) - Materials Science (3)

Physics Core

- Take 1 of the following:



Total Credits

- Take 12 credit(s) from:
 - [ECEN150](#) - Electric Circuit Analysis I (3)
 - [MATH113](#) - Calculus II (3)
 - [MATH214](#) - Multivariable and Vector Calculus (3)
 - [MATH215](#) - Multivariable Calculus (4)
 - [MATH330](#) - Engineering Statistics (3)
 - [ME101](#) - Introduction to Engineering and Technology (1)
 - [ME162](#) - Fundamentals in 2D CADD (3)
 - [ME204](#) - Engineering Mechanics: Dynamics (3)
 - [MET231L](#) - Manufacturing Processes I Lab (1)
 - [MET250L](#) - Materials Lab (1)
 - [ME272](#) - Mechanical CADD and GD&T (3)
 - [ME280](#) - ME Design I: Mechanical Design (3)
 - [ME299](#) - Student Mentorship (1)
 - [ME305](#) - Mechatronics and Measurement Systems I (3)
 - [ME398R](#) - Work Experience and Career Development (1)

Grand Total Credits: 62 - 63

Degree

Associate of Applied Science (AAS)

Department

Department of Engineering Technology

BYU-Idaho Academic Catalog

Fabrication (Cluster)

Program Description

A cluster of courses (12-15 credits) designed to prepare students in Fabrication, supplemental to a major.

Program Code

6303

Program Course Requirements

Core Courses

10

Total Credits

- Take the following:
 - [ME172](#) - Parametric Mechanical CAD (3)
 - [MET231](#) - Manufacturing Processes I (2)
 - [MET231L](#) - Manufacturing Processes I Lab (1)
 - [WELD170](#) - Welding Science and Allied Processes (2)
 - [WELD170L](#) - Welding Science and Allied Processes Lab (2)

Supplemental Courses

3

Total Credits



- [WELD224L](#) - Welding Engineering I Lab (2)
- [WELD243L](#) - Welding Engineering II Lab (2)

Grand Total Credits: 13

Department

Department of Engineering Technology

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Devotionals

Campus Map

BYU-Idaho Academic Catalog

Financial Economics (Major: Bachelor-Level)

Program Description



The Financial Economics major provides an academic framework to explore the role of financial markets and intermediaries in the allocation of capital and prepares students to be disciple leaders in their homes, communities, and professions. Among the topics studied in financial economics are financial markets, banks and other financial intermediaries, portfolio allocation, asset valuation, regulation and corporate governance.

Program Code

715

Program Learning Outcomes (PLOs)

1. Demonstrate well-developed analytical skills, specifically in terms of critical reasoning and technical expertise.
2. Conduct technical research that is relevant for employment in financial markets, treasury management, insurance underwriting or banking, or for further education in a graduate program, if desired.
3. Demonstrate professional written and verbal communication skills that allow them to present the results of their analysis and research in a clear and convincing manner.
4. Lead, accept responsibility, and work effectively as team members within an organization.
5. Apply the restored gospel of Jesus Christ as the pattern for behaving in responsible, informed, legal, ethical, and moral ways in their family, the Church, employment, and community.



- grades of C- or higher in major courses
- a 2.0 cumulative GPA
- a minimum of 120 cumulative credits
- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.
- MATH 112X or ECON 215 fulfills the General Education Quantitative Reasoning requirement.

Program Course Requirements



General Education

39

Total Credits



- Take at least 39 credit(s) to complete one of the following program(s): [GE - BACH](#)

Introductory Core

4

Total Credits



- Take the following:
 - [ECON151](#) - Economic Principles and Problems-Macro (3)
 - [ECON201](#) - Professional Exploration and Orientation (1)

Intermediate Core

4 - 6

Total Credits



- Complete all of the following
 - Take 1 of the following:
 - [AGBUS210](#) - Agricultural Economics (3)
 - [ECON150](#) - Economic Principles and Problems-Micro (3)
 - AND
 - Take 1 of the following:
 - [ACCTG233](#) - Spreadsheet Application (1)
 - [BUS115](#) - Business Applications (3)
 - [CIT110](#) - Introduction to Excel (3)

Statistics

3 - 8

Total Credits



- Complete 1 of the following
 - Option 1:
 - Take the following:
 - [ECON278](#) - Statistics for Economists (3)



- Take the following:
 - [ECON278](#) - Statistics for Economists (3)
 - [MATH109](#) - Precalculus (5)

Option 4:

- Take the following:
 - [MATH221A](#) - Business Statistics (3)
 - [MATH325](#) - Intermediate Statistics (3)

Core**13**

Total Credits



- Take the following:

- [ECON300](#) - Managerial Economics (3)
- [ECON353](#) - Money and Banking (3)
- [ECON388](#) - Introduction to Econometrics (3)
- [ECON398R](#) - Professional Internship (1)
- [ECON499](#) - Senior Capstone (3)

Module(s)**20 - 21**

Total Credits



- Complete all of the following

Financial Accounting Module

- Take 1 of the following:
 - [ACCTG201](#) - Financial Accounting (3)
 - [AGBUS201](#) - Agricultural Financial Accounting (3)

Financial Economics Module

- Take the following:
 - [ACCTG202](#) - Managerial Accounting (3)
 - [ECON255](#) - Financial Analytics (3)
 - [ECON355](#) - Investment Analysis (3)
 - [ECON370](#) - Ethics in Financial Management (3)
 - [ECON455](#) - Financial Economics (3)

Advanced Spreadsheet Module

- Take 1 of the following:
 - [ACCTG333B](#) - Advanced Spreadsheet Application (2)
 - [FIN411](#) - Advanced Financial Modeling (3)

Unspecified Electives**29**

Total Credits





the minimum of 120 credits required for graduation. Additional credits may also come from credits received through General Education courses.

Grand Total Credits: 112 - 120

Degree

Bachelor of Science (BS)

Department

Department of Economics

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BYU-Idaho Academic Catalog

Full Stack Web Development (Certificate)

Program Description



This certificate prepares students with the foundational skills necessary to find a job in full stack web development.

Program Code

C180

Program Learning Outcomes (PLOs)

1. Develop web sites that are visually appealing and follow industry standards.
2. Develop frontend web sites that query from web services and dynamically update the web page.
3. Develop backend web sites/services that provide access to both relational and NoSQL databases.
4. Develop full stack applications using a client-side framework.
5. Demonstrate the traits of an effective team member.

Program Notes



- To be awarded an academic certificate independent of a bachelor's or an associate degree, a student must earn:
 - grades of C- or higher in required courses





Program Course Requirements

**Certificate Core****14**

Total Credits



- Take the following:
 - [CSE340](#) - Web Backend Development (3)
 - [WDD231](#) - Web Frontend Development I (2)
 - [WDD331R](#) - Advanced CSS (2)
 - [WDD360](#) - Full Stack Foundations (4)
 - [WDD430](#) - Web Full-Stack Development (3)

Grand Total Credits: 14

Department

Department of Computer Science and Engineering

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BYU-Idaho Academic Catalog

General Economics (Cluster)

Program Description

A cluster of courses (12-15 credits) designed to prepare students in General Economics, supplemental to a major.

Program Code

2300

Program Course Requirements

Core Courses**6**

Total Credits



- Take the following:

- [ECON150](#) - Economic Principles and Problems-Micro (3)
- [ECON151](#) - Economic Principles and Problems-Macro (3)

Supplemental Courses**9**

Total Credits



- Take 3 of the following:

- [ECON255](#) - Financial Analytics (3)
- [ECON300](#) - Managerial Economics (3)



Grand Total Credits: 15

Department

Department of Economics

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BYU-Idaho Academic Catalog

IT Fundamentals (Certificate)

Program Description



This certificate provides foundational elements of information technology (IT). Designed for individuals aspiring to enter the IT field or enhance their existing knowledge. Through a blend of theoretical learning and hands-on experience, students gain skills to apply their knowledge in real-world scenarios. By completing this program, students are prepared for entry-level IT roles and can pursue further specialization in the field.

Program Code

C199

Program Learning Outcomes (PLOs)

1. Engage with stakeholders to break down business goals into technology solutions.
2. Identify core components of IT systems.

Program Notes



- To be awarded an academic certificate independent of a bachelor's or an associate degree, a student must earn:
 - grades of C- or higher in required courses
 - a minimum certificate program grade point average of 2.0





Program Course Requirements



Certificate Core

13

Total Credits



- Complete all of the following
 - Take the following:
 - [ITM101](#) - Introduction to Cloud Technologies (2)
 - [CSE110](#) - Introduction to Programming (2)
 - [ITM112](#) - Introduction to Linux (2)
 - [WDD130](#) - Web Fundamentals (2)
 - [CYBER201](#) - Cybersecurity Fundamentals (2)

AND

 - Take 1 of the following:
 - [ITM111](#) - Introduction to Databases (3)
 - [ITM220](#) - SQL (3)

Grand Total Credits: 13

Department

Department of Computer Science and Engineering



BYU-Idaho Academic Catalog

Journalism (Minor)

Program Description



Many studies show that the ability to communicate well on a job is one of the most important skills. A journalism minor presents a perfect opportunity to develop those communication skills. A journalism minor helps students write more succinctly and think more critically and learn vital newsgathering, multimedia, writing and editing skills. These include effective grammar, punctuation and style. Journalism minors focus on accuracy, precision and clarity when taking photos, producing news videos, writing and gathering news as they learn to value the traditions of the First Amendment.

Program Code

286

Program Learning Outcomes (PLOs)

1. Demonstrate the ability to write in a variety of journalism styles, including the inverted pyramid, feature styles and various media forms.
2. Show the ability to edit and rewrite stories in a professional manner.
3. Demonstrate the ability to gather information ethically for journalism using interviews, beats, observation, documents and data.
4. Demonstrate the ability to use tools such as photography or video or computer software to tell powerful news stories.
5. Demonstrate a knowledge of the ethics, norms and professional standards of this always-developing profession.





-
- No double counting of courses between the Minor and Major.
 - COMM 397A and COMM 397F may be repeated for credit.
 - For specific recommendations regarding the minor, please visit the Communication Department in Spori 229

Program Course Requirements



Core

24

Total Credits



- Complete all of the following
 - Take 12 credit(s) from:
 - [COMM102](#) - Public Speaking (3)
 - [COMM111](#) - Writing for Communication Career (3)
 - [COMM130](#) - Visual Media (3)
 - [COMM140](#) - Mass Media and Society (3)
 - [COMM150](#) - Interpersonal Theory and Practice (3)
- AND
 - Take 12 credit(s) from:
 - [COMM240](#) - Newsgathering Principles and Practices (3)
 - [COMM340](#) - Advanced Media Writing (3)
 - [COMM342](#) - Editing Essentials (3)
 - [COMM360](#) - Video Journalism (3)
 - [COMM397A](#) - Scroll Practicum (1)
 - [COMM397F](#) - Radio Station Practicum (1)

Grand Total Credits: 24

Department

Department of Communication

BYU-Idaho Academic Catalog

Law and Economics (Cluster)

Program Description

A cluster of courses (12-15 credits) designed to prepare students in Law and Economics, supplemental to a major.

Program Code

2302

Program Course Requirements

Core Courses

12

Total Credits

- Complete all of the following
 - Take the following:
 - [ECON150](#) - Economic Principles and Problems-Micro (3)
 - [ECON151](#) - Economic Principles and Problems-Macro (3)
 - [ECON440](#) - Law and Economics (3)
 - AND
 - Take 1 of the following:
 - [ECON330](#) - Economic Thought and History (3)
 - [ECON357](#) - Environmental and Natural Resource Economics (3)
 - [ECON463](#) - Labor Economics (3)



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Employment

BYU-Idaho Academic Catalog

Literacy Education (Minor)

Program Description



The literacy endorsement minor, in conjunction with an elementary education major, prepares teacher candidates to work effectively with diverse populations of learners in kindergarten through 12th grades. Candidates will engage in applied coursework in literacy, linguistics, and language acquisition theory, the science of reading and evidence-based practices research, and structured literacy methods. Teacher candidates will be prepared to assess and diagnose student literacy needs, and design structured literacy interventions using evidence-based teaching principles to meet the needs of students with diverse literacy profiles. This knowledge is applied during a practicum experience.

Program Code

270

Program Learning Outcomes (PLOs)

1. Know the foundations of language and literacy acquisition and development including reading, writing, listening, speaking, viewing.
2. Identify the characteristics of literacy difficulties in diverse learners, including dyslexia.
3. Apply knowledge of literacy assessments and data analysis to identify literacy difficulties and design structured literacy interventions.
4. Use data-driven, diagnostic methods of teaching reading and writing to provide instructional literacy interventions across content areas.
5. Know federal and state laws, regulations, guidance documents, and advocacy related to reading difficulties, including dyslexia.

Program Course Requirements



Core

20

Total Credits



- Complete all of the following
 - Take the following:
 - [ED340](#) - Foundations of Literacy Development and Rdg. Disabilities (3)
 - [ED350](#) - Language and the Brain (3)
 - [ED352](#) - Advanced Phonics (3)
 - [ED454](#) - Literacy Assessment and Intervention Methods (3)
 - [ED455](#) - Practicum in Assessment and Intervention (2)
 - [ED460](#) - Literacy in the Content Areas (3)
 - AND
 - Take 1 of the following:
 - [ENG355](#) - Children's Literature (3)
 - [ENG356](#) - Young Adult Literature (3)

Grand Total Credits: 20

Department

Department of Elementary, Early, and Special Education



BYU-Idaho Academic Catalog

Media Sales and Digital Media (Cluster)

Program Description



A cluster of courses (12-15 credits) designed to prepare students in Media Sales and Digital Media, supplemental to a major.

Program Code

2207

Program Course Requirements



Core Courses

9

Total Credits



- Take the following:

- [COMM320](#) - Digital Media Content Creation (3)
- [COMM322](#) - Digital Media Analytics and Strategy (3)
- [MKT370](#) - Professional Sales (3)

Supplemental Courses

3

Total Credits



- Take 3 credit(s) from:





Department

Department of Communication



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BYU-Idaho Academic Catalog

News/Journalism (Cluster)

Program Description

A cluster of courses (12-15 credits) designed to prepare students in News/Journalism, supplemental to a major.

Program Code

2213

Program Course Requirements

Core Courses

6

Total Credits

- Take the following:
 - [COMM111](#) - Writing for Communication Career (3)
 - [COMM240](#) - Newsgathering Principles and Practices (3)

Supplemental Courses

6

Total Credits

- Take 6 credit(s) from:
 - [COMM340](#) - Advanced Media Writing (3)
 - [COMM342](#) - Editing Essentials (3)





Department

Department of Communication

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BYU-Idaho Academic Catalog

Organizational Leadership (Minor)

Program Description



The Organizational Leadership Minor is designed to provide students with a comprehensive understanding of the principles and practices of communication in organizational settings. The program is designed to equip students with the skills and knowledge needed to effectively communicate within and across organizations. The minor will provide the leadership skills necessary to resolve conflict and help teams achieve their desired objects using appropriate persuasive methods.

Program Code

287

Program Learning Outcomes (PLOs)

1. Identify the skills to work effectively in teams, build consensus, and foster a culture of collaboration within organizations.
2. Recognize their own strengths, weaknesses, values, and emotions, enabling them to lead more effectively.
3. Use organizational leadership to analyze complex organizational issues, develop strategic plans and achieve organizational goals.
4. Develop effective interpersonal skills, including listening, conflict resolution, negotiation, and collaboration, to work with diverse stakeholders.
5. Create written, oral, and visual communication to lead change initiatives, manage resistance to change, and implement innovative solutions for organizations.





-
- No double counting of courses within the Minor.
 - No double counting of courses between the Minor and Major.
 - Courses designated with an 'R' may be repeated for a maximum of 8 credits.
 - For specific recommendations regarding the minor, please visit the Communication Department in Spori 229

Program Course Requirements

**Core****24**

Total Credits



- Complete all of the following
 - Take 12 credit(s) from:
 - [COMM102](#) - Public Speaking (3)
 - [COMM111](#) - Writing for Communication Career (3)
 - [COMM130](#) - Visual Media (3)
 - [COMM140](#) - Mass Media and Society (3)
 - [COMM150](#) - Interpersonal Theory and Practice (3)
 - AND
 - Take the following:
 - [COMM250](#) - Organizational Principles (3)
 - [COMM350](#) - Group Dynamics (3)
 - [COMM352](#) - Persuasion (3)
 - [COMM450](#) - Conflict Resolution and Negotiation (3)

Grand Total Credits: 24Department

Department of Communication



BYU-Idaho Academic Catalog

Biochemistry (Major: Bachelor-Level)

Program Description



Chemistry is the study of matter, energy, and their transformations. The principles of this discipline serve as a theoretical basis for a wide variety of fields such as agriculture, biology, dentistry, engineering, geology, medicine, nutrition, and physics. In addition, chemistry's analytical and logical approach to the world is excellent training for fields such as law and government.

Program Code

705

Program Learning Outcomes (PLOs)

1. Follow standard industrial chemical safety practices including biological safety.
2. Explain and predict chemical changes using current chemical theories, including biochemistry and molecular biology.
3. Implement standard operating procedures in the laboratory.
4. Synthesize a target product using a multistep chemical process.
5. Separate mixtures using standard laboratory separation techniques.
6. Identify a target product using standard characterization techniques.
7. Prepare sample for instrumental analysis.
8. Quantitatively analyze a sample using classical laboratory techniques.
9. Quantitatively analyze a sample using standard instrumental techniques.





Program Notes



- To graduate with a Bachelor's degree, a student must earn:
 - grades of C- or higher in major courses
 - a 2.0 cumulative GPA
 - a minimum of 120 cumulative credits
- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.
- For a recommended sequence of courses, please refer to the advising information on the department website: www.byui.edu/chemistry/advising.
- Biochemistry majors may need to request a track adjustment for the Fall/Winter track upon beginning their junior-level chemistry courses. Please consult with a faculty adviser.

Program Course Requirements



General Education

39

Total Credits



- Take at least 39 credit(s) to complete one of the following program(s): [GE - BACH](#)

Core

40 - 42

Total Credits



- Complete all of the following

- Take the following:
 - [CHEM105](#) - General Chemistry I (3)
 - [CHEM105L](#) - General Chemistry Laboratory I (1)
 - [CHEM106](#) - General Chemistry II (3)
 - [CHEM106L](#) - General Chemistry Laboratory II (1)
 - [CHEM220](#) - Quantitative Analysis (3)
 - [CHEM220L](#) - Quantitative Analysis Laboratory (2)
 - [CHEM250](#) - Introductory Organic and Biochemistry (3)
 - [CHEM250L](#) - Introductory Organic and Biochemistry Lab (1)
 - [CHEM351](#) - Organic Chemistry I (3)
 - [CHEM351L](#) - Organic Chemistry Laboratory I (1)
 - [CHEM352](#) - Organic Chemistry II (3)
 - [CHEM352L](#) - Organic Chemistry Laboratory II (1)
 - [CHEM368](#) - Physical Biochemistry (3)
 - [CHEM391](#) - Technical Writing in Chemical Literature (2)



- Take 1 credit(s) from:
 - [CHEM290R](#) - Special Topics in Chemistry (1 - 3)
 - [CHEM490R](#) - Advanced Topics in Chemistry (1 - 3)
 - [CHEM492R](#) - Student Research (1 - 2)

Multidisciplinary Core 1**16**

Total Credits



- Take the following:

- [BIO180](#) - Introduction to Biology I (3)
- [BIO180L](#) - Introduction to Biology I Lab (1)
- [BIO181](#) - Introduction to Biology II (3)
- [BIO181L](#) - Introduction to Biology II Lab (1)
- [PH121](#) - Principles of Physics I (3)
- [PH150](#) - Beginning Physics Lab (1)
- [PH220](#) - Principles of Physics III (3)
- [PH250](#) - Intermediate Physics Lab (1)

Math Core**4 - 9**

Total Credits



- Complete 1 of the following

Option 1:

- Take the following:
 - [MATH112X](#) - Calculus I (4)

Option 2:

- Take the following:
 - [MATH109](#) - Precalculus (5)
 - [MATH112X](#) - Calculus I (4)

Option 3:

- Take the following:
 - [MATH110X](#) - College Algebra (3)
 - [MATH111](#) - Trigonometry (2)
 - [MATH112X](#) - Calculus I (4)

Calculus**3 - 4**

Total Credits



- Take 1 of the following:

- [MATH113](#) - Calculus II (3)



- Complete 1 of the following

Option 1: Biology

- Take 1 of the following:
 - [BIO321](#) - Biology of Microorganisms (4)
 - [BIO375](#) - Genetics and Molecular Biology (3)
 - [BIO376](#) - Cell and Molecular Biology (3)
 - [BIO380](#) - Histology with Lab (4)
 - [BIO410](#) - Immunology (3)
 - [BIO412](#) - Virology (3)
 - [BIO461](#) - Principles of Physiology (5)

Option 2: Chemistry

- Take the following:
 - [CHEM420](#) - Instrumental Analysis (3)
 - [CHEM421](#) - Instrumental Analysis Lab (2)

Unspecified Electives**5**

Total Credits



- Take at least 5 credit(s) from any eligible university credits.

In addition to courses meeting the requirements for this program, students can take other courses offered by the university, for which they meet the course eligibility requirements, to bring their total number of credits to the minimum of 120 credits required for graduation. Additional credits may also come from credits received through General Education courses.

Grand Total Credits: 110 - 120

Degree

Bachelor of Science (BS)

Department

Department of Chemistry and Biochemistry





BYU-Idaho Academic Catalog

Department of Communication

Communication

Major: Bachelor-Level

- Digital/Social Media & Journalism
- Digital/Social Media & Video Production
- Digital/Social Media & Visual Communication
- Journalism & Organizational Leadership
- Journalism & Visual Communication
- Organizational Leadership & Digital/Social Media
- Organizational Leadership & Visual Communication
- Public Relations & Digital/Social Media
- Public Relations & Journalism
- Public Relations & Organizational Leadership
- Video Production & Journalism
- Video Production & Organizational Leadership
- Video Production & Public Relations
- Visual Communication & Public Relations
- Visual Communication & Video Production

Communication Theory

Minor

Digital and Social Media





VIEW
Media Sales and Digital Media Cluster
News/Journalism Cluster
Organizational Leadership Minor
Professional Presentations Cluster
Public Relations Cluster
Public Relations Minor
Strategic Organizational Communication Cluster
Video Production Minor
Video Production Cluster
Visual Communication Minor
Visual Communications Cluster



BYU-Idaho Academic Catalog

Department of Computer Science and Engineering

[Cloud Computing](#)

Major: Associate-Level

[Cloud Computing](#)

Major: Bachelor-Level

[Cloud Computing](#)

Certificate

[Computer Engineering](#)

Major: Bachelor-Level

[Computer Programming](#)

Minor

[Computer Science](#)

Major: Bachelor-Level

[Computer Science](#)

Minor

[Computing Fundamentals](#)

Cluster

[Cybersecurity](#)

Certificate

[Cybersecurity](#)

Major: Bachelor-Level

[Database](#)

Certificate

[Electrical and Computer Engineering](#)



**Majors, Bachelor-Level**[Embedded Systems](#)

Certificate

[Full Stack Web Development](#)

Certificate

[IT Fundamentals](#)

Certificate

[Software Design](#)

Certificate

[Software Engineering](#)

Major: Bachelor-Level

[Software Management](#)

Cluster

[Software Management](#)

Minor

[Software Quality Assurance](#)

Certificate

[Web and Computer Programming](#)

Certificate

[Web Design](#)

Minor

[Web Design and Development](#)

Major: Bachelor-Level

[Web Design and Development](#)

Major: Associate-Level

[Web Development](#)

Minor

[Web Frontend](#)

Certificate

BYU-Idaho Academic Catalog

Architectural Technology (Major: Associate-Level)

Program Description



The Architectural Technology Associates degree program is a pathway designed to equip students with the knowledge and skills necessary to work effectively in the field of architecture. Through a combination of classroom instruction and hands-on practical experience, students will learn about architectural design principles, construction techniques, building materials, computer-aided drafting (CAD), and architectural visualization software. The program emphasizes the development of technical proficiency in producing architectural drawings, 3D modeling, and construction documentation, as well as fostering an understanding of building codes, sustainability principles, and project management. Graduates of this program will be prepared to support architectural teams in various capacities, such as producing detailed drawings, collaborating on design projects, and assisting in the overall implementation of architectural plans.

Program Code

345

Program Learning Outcomes (PLOs)

1. Perform professional responsibilities independently, as a team member, and as part of a multi-disciplinary team.
2. Apply sound communication, business, and financial and ethical principles in the management of people and/or resources in the architectural environment.
3. Understand architecture/construction processes, sciences, technology, methods, and system assemblies and requirements.
4. Continue to grow intellectually and keep informed of new concepts and developments in architecture and /or construction.



- To graduate with an associate degree, a student must earn:
 - grades of C- or higher in major courses
 - a 2.0 cumulative GPA
 - a minimum of 60 cumulative credits
- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.

Program Course Requirements



General Education

18

Total Credits



- Take at least 18 credit(s) to complete one of the following program(s): [GE - AAS](#)

Core

39

Total Credits



- Take the following:
 - [CONST105](#) - Survey of Virtual Design and Construction Management (1)
 - [CONST120](#) - Framing Systems (3)
 - [CONST235](#) - Building Systems (4)
 - [CONST305](#) - Construction Estimating (3)
 - [CONST298R](#) - Beginning Internship (1)
 - [CONST311](#) - Construction BIM (3)
 - [VDC120](#) - Introduction to Computer Aided Design (3)
 - [VDC170](#) - Plan Reading (1)
 - [VDC180](#) - Presentation Graphics I (3)
 - [VDC190](#) - Building Information Modeling I (3)
 - [VDC290](#) - Building Information Modeling II (3)
 - [VDC310](#) - Preconstruction Building Information Modeling (3)
 - [VDC370](#) - Contract Documents (2)
 - [VDC385](#) - Presentation Graphics II (3)
 - [VDC410](#) - Architectural Design (3)

Unspecified Electives

3

Total Credits



- Take at least 3 credit(s) from any eligible University credits.



Degree

Associate of Applied Science (AAS)

Department

Department of Design and Construction Management



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Campus Map



BYU-Idaho Academic Catalog

Department of Design and Construction Management

[Architectural Technology](#)

Major: Associate-Level

[Building Information Modeling](#)

Certificate

[Construction Field Supervision](#)

Certificate

[Construction Management](#)

Major: Bachelor-Level

[Construction Superintendency](#)

Major: Associate-Level

[Construction Technology](#)

Minor

[Virtual Design and Construction](#)

Major: Bachelor-Level



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BYU-Idaho Academic Catalog

Agribusiness (Cluster)

Program Description

A cluster of courses (12-15 credits) designed to prepare students in Agribusiness, supplemental to a major.

Program Code

2307

Program Course Requirements

Core Courses

12

Total Credits

- Take the following:
 - [AGBUS201](#) - Agricultural Financial Accounting (3)
 - [AGBUS210](#) - Agricultural Economics (3)
 - [AGBUS347](#) - Agricultural Marketing (3)
 - [ECON151](#) - Economic Principles and Problems-Macro (3)

Supplemental Courses

3

Total Credits

- Take 1 of the following:



- AGEBUS110 - Agribusiness Finance (3)
- o ECON255 - Financial Analytics (3)

Grand Total Credits: 15

Department

Department of Economics



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Campus Map

BYU-Idaho Academic Catalog

Agribusiness (Major: Bachelor-Level)

Program Description

^

Agribusiness management is designed to prepare a student for employment in a variety of fields involved in the food and fiber value chain including business finance, supply chain and logistics, sales and marketing, commodity marketing, international agribusiness, policy formation, farm and ranch management, resource economics, banking, and agricultural real estate appraisal.

Program Code

643

Program Learning Outcomes (PLOs)

1. Demonstrate well-developed analytical skills, specifically in terms of critical reasoning and technical expertise, to make agribusiness decisions.
2. Demonstrate professional written and verbal communication skills that allow them to present the results of their analysis and research in a clear and convincing manner.
3. Lead, accept responsibility, and work effectively as team members within an organization.
4. Apply the restored gospel of Jesus Christ as the pattern for behaving in responsible, informed, legal, ethical, and moral ways in their family, the Church, employment, and community.

Program Notes

^



- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.
- When a student has completed 60 credits, their track will be changed to Fall/Winter.

Program Course Requirements



General Education

39

Total Credits



- Take at least 39 credit(s) to complete one of the following program(s): [GE - BACH](#)

Introductory Core

17 - 19

Total Credits



- Complete all of the following

- Take the following:
 - [AGBUS100](#) - Agriculture Orientation (1)
 - [AGBUS201](#) - Agricultural Financial Accounting (3)
 - [AGBUS347](#) - Agricultural Marketing (3)
 - [ECON151](#) - Economic Principles and Problems-Macro (3)
 - [ECON255](#) - Financial Analytics (3)

AND

- Take 1 of the following:
 - [ACCTG233](#) - Spreadsheet Application (1)
 - [BUS115](#) - Business Applications (3)
 - [CIT110](#) - Introduction to Excel (3)

AND

- Take 1 of the following:
 - [AGBUS210](#) - Agricultural Economics (3)
 - [ECON150](#) - Economic Principles and Problems-Micro (3)

Core

19

Total Credits



- Complete all of the following

- Take the following:
 - [AGBUS310](#) - Agricultural Policy and Trade (3)
 - [AGBUS380](#) - Agribusiness Operations Analysis (3)
 - [AGBUS398R](#) - Occupational Internship (1)
 - [AGBUS430](#) - Agricultural Price Analysis (3)



- [AGBUS460](#) - Strategic Food and Agribusiness Management (3)

Module(s)**12**

Total Credits



Management Module

- Take the following:
 - [ACCTG202](#) - Managerial Accounting (3)
 - [BUS270](#) - Human Resource Management (3)
 - [BUS375](#) - Business Law (3)
 - [MKT370](#) - Professional Sales (3)

Component Options**12 - 24**

Total Credits



- Complete 1 of the following
 - Economics Minor
 - Take at least 22 credit(s) to complete one of the following program(s): [149](#)
 - Supply Chain Management Minor
 - Take at least 24 credit(s) to complete one of the following program(s): [249](#)
 - Animal Reproduction Cluster
 - Take at least 13 credit(s) to complete one of the following program(s): [1003](#)
 - Animal Nutrition Cluster
 - Take at least 14 credit(s) to complete one of the following program(s): [1011](#)
 - Beef Production Cluster
 - Take at least 14 credit(s) to complete one of the following program(s): [1012](#)
 - Food Science Cluster
 - Take at least 13 credit(s) to complete one of the following program(s): [1019](#)
 - Soil Management Cluster
 - Take at least 13 credit(s) to complete one of the following program(s): [1503](#)
 - Crop Protection Cluster
 - Take at least 14 credit(s) to complete one of the following program(s): [1505](#)
 - GIS in Agriculture and Natural Resources Cluster
 - Take at least 12 credit(s) to complete one of the following program(s): [1506](#)
 - Agriculture Technology Cluster
 - Take at least 15 credit(s) to complete one of the following program(s): [1507](#)
 - Agronomy Cluster
 - Take at least 12 credit(s) to complete one of the following program(s): [1508](#)
 - Financial Accounting: for Non-Business Majors Cluster
 - Take at least 12 credit(s) to complete one of the following program(s): [2000](#)
 - Data Science Certificate
 - Take at least 14 credit(s) to complete one of the following program(s): [C124](#)
 - Human Resource Management Certificate

**Total Credits**

- Take at least 7 credit(s) from any eligible university credits.

In addition to courses meeting the requirements for this program, students can take other courses offered by the university, for which they meet the course eligibility requirements, to bring their total number of credits to the minimum of 120 credits required for graduation. Additional credits may also come from credits received through General Education courses..

Grand Total Credits: 106 - 120

Degree

Bachelor of Science (BS)

Department

Department of Economics

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BYU-Idaho Academic Catalog

Agribusiness (Minor)

Program Description



Program Code

252

Program Notes



- AGBUS 380, 430, and 435 are offered only in the Fall Semester.
- AGBUS 410, 440, and 450 are offered only in the Winter Semester.

Program Course Requirements



Core

16 - 18

Total Credits



- Complete all of the following
 - Take 1 of the following:
 - [ACCTG233](#) - Spreadsheet Application (1)
 - [BUS115](#) - Business Applications (3)



- [AGBUS347](#) - Agricultural Marketing (3)
- [ECON151](#) - Economic Principles and Problems-Macro (3)
- [ECON255](#) - Financial Analytics (3)

Electives

9

Total Credits



- Take 3 of the following:
 - [AGBUS310](#) - Agricultural Policy and Trade (3)
 - [AGBUS380](#) - Agribusiness Operations Analysis (3)
 - [AGBUS430](#) - Agricultural Price Analysis (3)
 - [AGBUS435](#) - Agriculture Commodity Marketing (3)
 - [AGBUS440](#) - Agribusiness Finance (3)
 - [AGBUS450](#) - Agriculture Business Management (3)

Grand Total Credits: 25 - 27

Department

Department of Economics



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BYU-Idaho Academic Catalog

Department of Economics

[Agribusiness](#)

Cluster

[Agribusiness](#)

Major: Bachelor-Level

[Agribusiness](#)

Minor

[Economics](#)

Minor

[Economics](#)

Major: Bachelor-Level

[Financial Economics](#)

Major: Bachelor-Level

[General Economics](#)

Cluster

[Law and Economics](#)

Cluster



BYU-Idaho Academic Catalog

Department of Elementary, Early, and Special Education

[Early Childhood Education/Early Childhood Special Education](#)

Major: Bachelor-Level

[Early Intervention](#)

Minor

[Elementary Education](#)

Minor

[Elementary Education](#)

Major: Bachelor-Level

[Literacy Education](#)

Minor

[Special Education Generalist K-8](#)

Minor

[Special Education K-12 Generalist](#)

Major: Bachelor-Level



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BYU-Idaho Academic Catalog

Advanced Vehicle Systems (Major: Bachelor-Level)

Program Description



This degree allows students to study all of the systems that comprise a modern automobile in depth. When coupled with a minor or with clusters from areas such as engineering, manufacturing technology, electrical engineering, business, or others, graduates of this degree are prepared for diverse careers in the automotive industry including service engineer, research and development technician, engineering technician, electrical engineering technician, manager, educator, writer, or service technician.

Program Code

416

Program Learning Outcomes (PLOs)

1. Create, assess, and improve broadly defined automotive diagnostic and service processes.
2. Effectively apply diagnostic processes to identify root causes of automotive technical problems.
3. Apply written, oral, and graphical communication in broadly defined technical and non-technical environments and identify and use appropriate technical literature.
4. Collaborate effectively with teams and individuals to accomplish service engineering objectives.
5. Apply knowledge, techniques, skills, and modern diagnostic and service tools to solve technical automotive problems.
6. Recognize ethical responsibilities in automotive service engineering.



- grades of C- or higher in major courses
- a 2.0 cumulative GPA
- a minimum of 120 cumulative credits
- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.
- Students are required to take the following ASE certification exams prior to graduation: A1(Engine Repair) A2 (Automatic Transmission/Transaxle) A3(Manual Drive Trains) A4 (Suspension & Suspension) A5 (Brakes) A6 (Electrical/Electronic Systems) A7 (Heating & Air Conditioning) A8 (Engine Performance) No grade less than C- in Major courses is accepted for graduation.
- Though it is not required, it is strongly recommended that students choose an area to emphasize. This can be done by earning a minor or cluster(s) that compliment your skill set. Some suggested minors or clusters include manufacturing technology, business management, engineering, electrical engineering, or welding and fabrication

Program Course Requirements



General Education

39

Total Credits



- Take at least 39 credit(s) to complete one of the following program(s): [GE - BACH](#)

Introductory Core

13

Total Credits



NOTE: Take the following courses during your first two semesters.

- Take the following:
 - [AUTO125](#) - Automotive Ownership and Maintenance (1)
 - [AUTO131](#) - Electrical Systems (2)
 - [AUTO131L](#) - Electrical Systems Lab (1)
 - [AUTO132](#) - Engine Performance (2)
 - [AUTO132L](#) - Engine Performance Lab (1)
 - [AUTO255](#) - Braking Systems (2)
 - [AUTO255L](#) - Braking Systems Lab (1)
 - [AUTO256](#) - Chassis Dynamics (2)
 - [AUTO256L](#) - Chassis Dynamics Lab (1)

Core

34

Total Credits



- Take the following:
 - [AUTO200](#) - Career Planning and Networking (3)
 - [AUTO223](#) - Climate Control (2)



- [AUTO352L](#) - Engine Management Systems Lab (1)

- [AUTO298R](#) - Automotive Internship (1)
- [AUTO351](#) - Internal Combustion Engines (2)
- [AUTO351L](#) - Internal Combustion Engine Lab (3)
- [AUTO366](#) - Drivetrain Systems (3)
- [AUTO366L](#) - Drivetrain Systems Lab (3)
- [AUTO398R](#) - Automotive Professional Internship (1)
- [AUTO481](#) - Drivability and Diagnostics (2)
- [AUTO481L](#) - Drivability and Diagnostics Lab (1)
- [AUTO482](#) - Data Acquisition and Analysis (2)
- [AUTO482L](#) - Data Acquisition and Analysis Lab (1)
- [AUTO483](#) - Hybrid and Electric Vehicle Technology (2)
- [AUTO483L](#) - Hybrid and Electric Vehicle Technology Lab (1)

Supplemental Courses

3

Total Credits



- Take 3 credit(s) from:
 - [BA215](#) - Spreadsheet Analysis for Business (3)
 - [CIT110](#) - Introduction to Excel (3)
 - [ME142](#) - Engineering Computation (3)
 - [ME172](#) - Parametric Mechanical CAD (3)
 - [MET231](#) - Manufacturing Processes I (2)
 - [MET231L](#) - Manufacturing Processes I Lab (1)
 - [MET331](#) - Manufacturing Processes II (3)
 - [MET332](#) - Computer Numerical Control (CNC) (3)
 - [WELD170](#) - Welding Science and Allied Processes (2)
 - [WELD170L](#) - Welding Science and Allied Processes Lab (2)
 - [WELD224](#) - Welding Engineering I (2)
 - [WELD224L](#) - Welding Engineering I Lab (2)
 - [WELD243](#) - Welding Engineering II (2)
 - [WELD243L](#) - Welding Engineering II Lab (2)

Unspecified Electives

31

Total Credits



- Take at least 31 credit(s) from any eligible university credits.

In addition to courses meeting the requirements for this program, students can take other courses offered by the university, for which they meet the course eligibility requirements, to bring their total number of credits to



Degree

Bachelor of Science (BS)

Department

Department of Engineering Technology

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BYU-Idaho Academic Catalog

Auto Service Technology (Certificate)

Program Description



This certificate provides students with a basic understanding of Auto Service Technology.

Program Code

C112

Program Learning Outcomes (PLOs)

1. Demonstrate an understanding of the operation of automotive systems and components.
2. Apply logical processes to diagnose mechanical and electrical faults.
3. Safely apply correct procedures to perform quality repair and maintenance procedures
4. Demonstrate professionalism and integrity while working effectively with others.
5. Be prepared to take and pass professional certification exams.

Program Notes



- To be awarded an academic certificate independent of a bachelor's or an associate degree, a student must earn:
 - grades of C- or higher in required courses



Program Course Requirements



Certificate Core

13

Total Credits



- Take the following:
 - [AUTO125](#) - Automotive Ownership and Maintenance (1)
 - [AUTO131](#) - Electrical Systems (2)
 - [AUTO132](#) - Engine Performance (2)
 - [AUTO331](#) - Vehicle Electronics (2)
 - [AUTO332](#) - Engine Management Systems (2)
 - [AUTO255](#) - Braking Systems (2)
 - [AUTO256](#) - Chassis Dynamics (2)

Grand Total Credits: 13

Department

Department of Engineering Technology

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BYU-Idaho Academic Catalog

Automotive Engineering Technology (Major: Bachelor-Level)

Program Description

^

This degree combines automotive and engineering coursework to prepare students for careers including test engineer, service engineer, or engineering technician. In these positions, interns and graduates build and test prototypes and aid in the development and refinement of new vehicles and their components. These individuals often work in labs and on test courses in order to help take new automobiles from design to the manufacturing stage.

Program Code

414

Program Learning Outcomes (PLOs)

1. Solve automotive engineering problems by applying knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology.
2. Design systems, components, or processes meeting specified needs for broadly defined automotive engineering problems.
3. Apply written, oral, and graphical communication in broadly defined technical and non-technical environments and identify and use appropriate technical literature.
4. Conduct standard tests, measurements, and experiments and analyze and interpret the results to improve products and processes.
5. Collaborate effectively as a member and a leader on technical teams.
6. Recognize ethical responsibilities in automotive engineering technology disciplines.



- grades of C- or higher in major courses
- a 2.0 cumulative GPA
- a minimum of 120 cumulative credits
- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.
- Students are required to take the following ASE certification exams prior to graduation: A4 (Suspension & Suspension) A5 (Brakes) A6 (Electrical/Electronic Systems) A8 (Engine Performance)

Program Course Requirements



General Education

39

Total Credits



- Take at least 39 credit(s) to complete one of the following program(s): [GE - BACH](#)

Core

56

Total Credits



- Take the following:
 - [AUTO125](#) - Automotive Ownership and Maintenance (1)
 - [AUTO131](#) - Electrical Systems (2)
 - [AUTO131L](#) - Electrical Systems Lab (1)
 - [AUTO132](#) - Engine Performance (2)
 - [AUTO132L](#) - Engine Performance Lab (1)
 - [AUTO200](#) - Career Planning and Networking (3)
 - [AUTO255](#) - Braking Systems (2)
 - [AUTO255L](#) - Braking Systems Lab (1)
 - [AUTO256](#) - Chassis Dynamics (2)
 - [AUTO331](#) - Vehicle Electronics (2)
 - [AUTO331L](#) - Vehicle Electronics Lab (1)
 - [AUTO332](#) - Engine Management Systems (2)
 - [AUTO332L](#) - Engine Management Systems Lab (1)
 - [AUTO398R](#) - Automotive Professional Internship (1)
 - [AUTO481](#) - Drivability and Diagnostics (2)
 - [AUTO481L](#) - Drivability and Diagnostics Lab (1)
 - [AUTO482](#) - Data Acquisition and Analysis (2)
 - [AUTO482L](#) - Data Acquisition and Analysis Lab (1)
 - [AUTO483](#) - Hybrid and Electric Vehicle Technology (2)
 - [AUTO483L](#) - Hybrid and Electric Vehicle Technology Lab (1)
 - [MATH330](#) - Engineering Statistics (3)

[ME202 - Strength of Materials](#) (3)

- [MET231](#) - Manufacturing Processes I (2)
- [MET231L](#) - Manufacturing Processes I Lab (1)
- [MET332](#) - Computer Numerical Control (CNC) (3)
- [MET340](#) - Manufacturing Quality (3)

Foundational Math**4 - 9**

Total Credits



- Complete 1 of the following

Option 1:

- Take the following:
 - [MATH112X](#) - Calculus I (4)

Option 2:

- Take the following:
 - [MATH109](#) - Precalculus (5)
 - [MATH112X](#) - Calculus I (4)

Option 3:

- Take the following:
 - [MATH110X](#) - College Algebra (3)
 - [MATH111](#) - Trigonometry (2)
 - [MATH112X](#) - Calculus I (4)

Elective Major Credits**2 - 3**

Total Credits



- Take 1 of the following:

- [AUTO351](#) - Internal Combustion Engines (2)
- [AUTO366](#) - Drivetrain Systems (3)
- [MET305](#) - Introduction to Mechatronics (3)
- [MET331](#) - Manufacturing Processes II (3)
- [SCM361](#) - Operations Management (3)

Unspecified Electives**13**

Total Credits



- Take at least 13 credit(s) from any eligible university credits.

In addition to courses meeting the requirements for this program, students can take other courses offered by the university, for which they meet the course eligibility requirements, to bring their total number of credits to



Degree

Bachelor of Science (BS)

Department

Department of Engineering Technology

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Devotionals

Campus Map

Campus Tours

BYU-Idaho Academic Catalog

Automotive Technology Management (Major: Bachelor-Level)

Program Description



This degree combines automotive and business management course work to prepare students for career opportunities in managing the operations of automotive-related businesses including manufacturers, aftermarket producers, dealerships, and other technology-oriented companies. It is also a great preparation for becoming a business owner or entrepreneur.

Program Code

413

Program Learning Outcomes (PLOs)

1. Apply written, oral, and graphical communication in broadly defined technical and non-technical environments and identify and use appropriate technical literature.
2. Collaborate effectively as a member and a leader in diverse teams and environments.
3. Effectively use technology and data to make informed business decisions.
4. Demonstrate knowledge of automotive systems operation and service procedures.
5. Recognize and apply ethical responsibilities in automotive business decisions.

Program Notes





- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.
- Students are required to take the following ASE certification exams prior to graduation: A4 (Suspension & Suspension) A5 (Brakes) A6 (Electrical/Electronic Systems) A8 (Engine Performance)

Program Course Requirements ^

General Education

39

Total Credits ^

- Take at least 39 credit(s) to complete one of the following program(s): [GE - BACH](#)

Core

60 - 62

Total Credits ^

- Complete all of the following

- Take the following:
 - [ACCTG180](#) - Survey of Accounting (3)
 - [AUTO125](#) - Automotive Ownership and Maintenance (1)
 - [AUTO131](#) - Electrical Systems (2)
 - [AUTO131L](#) - Electrical Systems Lab (1)
 - [AUTO132](#) - Engine Performance (2)
 - [AUTO132L](#) - Engine Performance Lab (1)
 - [AUTO200](#) - Career Planning and Networking (3)
 - [AUTO331](#) - Vehicle Electronics (2)
 - [AUTO331L](#) - Vehicle Electronics Lab (1)
 - [AUTO332](#) - Engine Management Systems (2)
 - [AUTO332L](#) - Engine Management Systems Lab (1)
 - [AUTO255](#) - Braking Systems (2)
 - [AUTO255L](#) - Braking Systems Lab (1)
 - [AUTO256](#) - Chassis Dynamics (2)
 - [AUTO481](#) - Drivability and Diagnostics (2)
 - [AUTO481L](#) - Drivability and Diagnostics Lab (1)
 - [AUTO482](#) - Data Acquisition and Analysis (2)
 - [AUTO482L](#) - Data Acquisition and Analysis Lab (1)
 - [AUTO483](#) - Hybrid and Electric Vehicle Technology (2)
 - [AUTO483L](#) - Hybrid and Electric Vehicle Technology Lab (1)
 - [BA211](#) - Business Fundamentals (3)
 - [BA215](#) - Spreadsheet Analysis for Business (3)
 - [BUS100](#) - Business Exploration and Orientation (1)



- [SEMINAR](#) - Operations Management (3)

AND

- o Take 1 of the following:
 - o [BUS380](#) - International Business (3)
 - o [BUS410](#) - Principles of Advanced Business Management (3)
 - o [BUS499](#) - Principles of Business Strategy (3)

AND

- o Take 1 of the following:
 - o [AUTO398R](#) - Automotive Professional Internship (1)
 - o [IDS398R](#) - Interdisciplinary Internship (1)

AND

- o Take 1 of the following:
 - o [AUTO256L](#) - Chassis Dynamics Lab (1)
 - o [AUTO351](#) - Internal Combustion Engines (2)
 - o [IDS499](#) - Interdisciplinary Capstone (2)
 - o [MET340](#) - Manufacturing Quality (3)

Unspecified Electives

19

Total Credits



- Take at least 19 credit(s) from any eligible university credits.

In addition to courses meeting the requirements for this program, students can take other courses offered by the university, for which they meet the course eligibility requirements, to bring their total number of credits to the minimum of 120 credits required for graduation. Additional credits may also come from credits received through General Education courses.

Grand Total Credits: 118 - 120

Degree

Bachelor of Science (BS)

Department

Department of Engineering Technology



BYU-Idaho Academic Catalog

Automotive Technology (Cluster)

Program Description

A cluster of courses (12-15 credits) designed to prepare students in Automotive Technology, supplemental to a major.

Program Code

6100

Program Course Requirements

Core Courses

7

Total Credits

- Take the following:
 - [AUTO125](#) - Automotive Ownership and Maintenance (1)
 - [AUTO131](#) - Electrical Systems (2)
 - [AUTO131L](#) - Electrical Systems Lab (1)
 - [AUTO132](#) - Engine Performance (2)
 - [AUTO132L](#) - Engine Performance Lab (1)

Supplemental Courses

5

Total Credits

- [AUTO331L](#) - Vehicle Electronics Lab (1)
- [AUTO332](#) - Engine Management Systems (2)
- [AUTO332L](#) - Engine Management Systems Lab (1)
- [AUTO255](#) - Braking Systems (2)
- [AUTO255L](#) - Braking Systems Lab (1)

AND

- Take 1 of the following:
 - [ME101](#) - Introduction to Engineering and Technology (1)
 - [WELD100](#) - Introduction to Welding (1)

Grand Total Credits: 12

Department

Department of Engineering Technology



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BYU-Idaho Academic Catalog

Automotive Technology (Major: Associate-Level)

Program Description



This degree prepares students for a challenging and rewarding career as an automotive technician in a dealership or independent repair business.

Automotive courses: Classes are “hands-on” and interactive. Much of the required course time is spent in labs, working on vehicles and real problems. BYU-Idaho’s automotive facility is well-equipped with state-of-the-art diagnostic and test equipment where students can experience the latest technology and leave prepared to begin a successful career.

Internships: Internships are paid work experiences and are required for automotive majors. They allow students to gain industry experience as part of their training and provide them the opportunity to apply and reinforce the knowledge and skills learned in the classroom. Internships also serve to open doors for future careers.

Elective Courses: The Automotive program also offers elective courses that are open to all university students, regardless of their major, previous experience, or knowledge. These classes are designed to teach car owners how to purchase, care for, and perform basic maintenance on their vehicles.

Special Requirements: Students in all automotive labs are expected to have at least a basic set of tools. A list of the required tools can be found at <http://www.byui.edu/automotive/student-resources/tool-list/tool-list> and these tools can be purchased through the school during the first week of the semester for a discounted price.

Program Code

346

Program Learning Outcomes (PLOs)





-
4. Understand technical concepts of brakes, steering, and suspension systems.
 5. Understand technical concepts of electrical systems.
 6. Understand technical concepts of heating and A/C systems.
 7. Demonstrate quality workmanship.
 8. Communicate with clarity and accuracy in speaking, and writing.
 9. Develop competitive job-seeking skills.

Program Notes



- To graduate with an associate degree, a student must earn:
 - grades of C- or higher in major courses
 - a 2.0 cumulative GPA
 - a minimum of 60 cumulative credits
- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.
- Students are required to take the following ASE certification exams prior to graduation: A1(Engine Repair) A2 (Automatic Transmission/Transaxle) A3(Manual Drive Trains) A4 (Suspension & Suspension) A5 (Brakes) A6 (Electrical/Electronic Systems) A7 (Heating & Air Conditioning) A8 (Engine Performance)

Program Course Requirements



General Education

18

Total Credits



- Take at least 18 credit(s) to complete one of the following program(s): [GE - AAS](#)

Core

43

Total Credits



- Take the following:
 - [AUTO125](#) - Automotive Ownership and Maintenance (1)
 - [AUTO131](#) - Electrical Systems (2)
 - [AUTO131L](#) - Electrical Systems Lab (1)
 - [AUTO132](#) - Engine Performance (2)
 - [AUTO132L](#) - Engine Performance Lab (1)
 - [AUTO223](#) - Climate Control (2)
 - [AUTO223L](#) - Climate Control Lab (1)



- [AUTO290 - Automotive Internship](#) (1)
- o [AUTO331 - Vehicle Electronics](#) (2)
 - o [AUTO331L - Vehicle Electronics Lab](#) (1)
 - o [AUTO332 - Engine Management Systems](#) (2)
 - o [AUTO332L - Engine Management Systems Lab](#) (1)
 - o [AUTO351 - Internal Combustion Engines](#) (2)
 - o [AUTO351L - Internal Combustion Engine Lab](#) (3)
 - o [AUTO366 - Drivetrain Systems](#) (3)
 - o [AUTO366L - Drivetrain Systems Lab](#) (3)
 - o [AUTO481 - Drivability and Diagnostics](#) (2)
 - o [AUTO481L - Drivability and Diagnostics Lab](#) (1)
 - o [AUTO482 - Data Acquisition and Analysis](#) (2)
 - o [AUTO482L - Data Acquisition and Analysis Lab](#) (1)
 - o [AUTO483 - Hybrid and Electric Vehicle Technology](#) (2)
 - o [AUTO483L - Hybrid and Electric Vehicle Technology Lab](#) (1)

Grand Total Credits: 61

Degree

Associate of Applied Science (AAS)

Department

Department of Engineering Technology

BYU-Idaho Academic Catalog

Automotive Technology (Minor)

Program Description



A group of courses (21 credits) designed to encourage focused learning in Automotive Technology, complementary to an integrated standard degree or as an element of an interdisciplinary studies degree.

Program Code

210

Program Course Requirements



Core

16

Total Credits



- Take the following:
 - [AUTO125 - Automotive Ownership and Maintenance \(1\)](#)
 - [AUTO131 - Electrical Systems \(2\)](#)
 - [AUTO132 - Engine Performance \(2\)](#)
 - [AUTO200 - Career Planning and Networking \(3\)](#)
 - [AUTO331 - Vehicle Electronics \(2\)](#)
 - [AUTO332 - Engine Management Systems \(2\)](#)
 - [AUTO255 - Braking Systems \(2\)](#)



- Take 5 credit(s) from:
 - [AUTO131L](#) - Electrical Systems Lab (1)
 - [AUTO132L](#) - Engine Performance Lab (1)
 - [AUTO223](#) - Climate Control (2)
 - [AUTO255L](#) - Braking Systems Lab (1)
 - [AUTO256L](#) - Chassis Dynamics Lab (1)
 - [AUTO351](#) - Internal Combustion Engines (2)
 - [AUTO366](#) - Drivetrain Systems (3)

Grand Total Credits: 21

Department

Department of Engineering Technology

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BYU-Idaho Academic Catalog

Department of Engineering Technology

[Advanced Vehicle Systems](#)

Major: Bachelor-Level

[Auto Service Technology](#)

Certificate

[Automotive Engineering Technology](#)

Major: Bachelor-Level

[Automotive Technology](#)

Major: Associate-Level

[Automotive Technology](#)

Minor

[Automotive Technology](#)

Cluster

[Automotive Technology Management](#)

Major: Bachelor-Level

[Engineering Technology](#)

Major: Associate-Level

[Fabrication](#)

Cluster

[Manufacturing](#)

Cluster

[Manufacturing Engineering Technology](#)

Major: Bachelor-Level

[Manufacturing Technology](#)



Major: Bachelor-Level

[Welding and Fabrication Technology](#)

Major: Associate-Level

[Welding Engineering Technology](#)

Major: Bachelor-Level

[Welding Fabrication Technology](#)

Minor

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Devotionals

Campus Map



BYU-Idaho Academic Catalog

Professional Presentations (Cluster)

Program Description



A cluster of courses (12-15 credits) designed to prepare students in Professional Presentations, supplemental to a major.

Program Code

2208



Program Course Requirements



Core Courses

12

Total Credits

- Take the following:
 - [COMM102](#) - Public Speaking (3)
 - [COMM130](#) - Visual Media (3)
 - [COMM273](#) - Professional Presentations (3)
 - [COMM352](#) - Persuasion (3)

Grand Total Credits: 12





BYU-Idaho Academic Catalog

Public Relations (Cluster)

Program Description

A cluster of courses (12-15 credits) designed to prepare students in Public Relations, supplemental to a major.

Program Code

2205

Program Course Requirements

Core Courses

6

Total Credits

- Take the following:
 - [COMM235](#) - PR Principles and Writing (3)
 - [COMM335](#) - Public Relations Research (3)

Supplemental Courses

6

Total Credits

- Take 6 credit(s) from:
 - [COMM320](#) - Digital Media Content Creation (3)
 - [COMM336](#) - Public Relations Design (3)





Department of Communication

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Devotionals

Campus Map

Campus Tours

Employment



BYU-Idaho Academic Catalog

Public Relations (Minor)

Program Description



The Public Relations (PR) minor develops students to become strategic communicators as they manage the relationship between clients and their target public. Students will gain experience in strategic writing, client management, message design, and public opinion research; highly employable skills in careers working with clients and communication needs. Students will emerge from the PR program with a resume full of hands-on experience working with clients from the local and regional community. These client experiences develop student's skills to competently handle messaging strategy and design across social media, events management, public campaigns, organizational promotion, and influencer relations. Students are highly competitive for employment in public relations, local government, marketing, advertising, social media management, non-profit organizations, and related fields.

Program Code

288

Program Learning Outcomes (PLOs)

1. Write effectively and ethically for diverse audiences.
2. Apply ethical public relations communication principles and practices.
3. Create purposeful messages appropriate to the audience.
4. Utilize persuasion and communication theories when formulating public relation tactics.
5. Explore the theory or phenomenon of events in society as well as management fundamentals.





- NO double counting of courses between the minor and major.

Program Course Requirements

Core

24

Total Credits

- Complete all of the following
 - Take 12 credit(s) from:
 - [COMM102](#) - Public Speaking (3)
 - [COMM111](#) - Writing for Communication Career (3)
 - [COMM130](#) - Visual Media (3)
 - [COMM140](#) - Mass Media and Society (3)
 - [COMM150](#) - Interpersonal Theory and Practice (3)
 - AND
 - Take the following:
 - [COMM235](#) - PR Principles and Writing (3)
 - [COMM335](#) - Public Relations Research (3)
 - [COMM336](#) - Public Relations Design (3)
 - [COMM425](#) - Crisis Communication (3)

Grand Total Credits: 24

Department

Department of Communication





BYU-Idaho Academic Catalog

Software Design (Certificate)

Program Description



This certificate provides students with advanced computer programming and software design skills enabling them to make meaningful contributions in large and complex software systems.

Program Code

C165

Program Learning Outcomes (PLOs)

1. Possess a well-developed tool bag of organized approaches to solve software problems.
2. Be able to function within a wide variety of software development methodologies.
3. Be able to convert requirements into functional software.
4. Be capable of providing leadership in a diverse software development team.

Program Notes



- To be awarded an academic certificate independent of a bachelor's or an associate degree, a student must earn:
 - grades of C- or higher in required courses
 - a minimum certificate program grade point average of 2.0



**Certificate Core****15**

Total Credits



- Take the following:
 - [CSE130](#) - Algorithm Design (2)
 - [CSE131](#) - Modularization Design (2)
 - [CSE230](#) - Encapsulation Design (3)
 - [CSE231](#) - Inheritance Design (2)
 - [CSE232](#) - Designing Data Structures (2)
 - [CSE331](#) - Design Patterns (2)
 - [CSE430](#) - Architectural Design (2)

Grand Total Credits: 15**Department**

Department of Computer Science and Engineering

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BYU-Idaho Academic Catalog

Software Engineering (Major: Bachelor-Level)

Program Description



This program provides students with a solid foundation in both the breadth and depth of the principles and practices of software engineering as well as skills in computer programming. In this program of study, students learn and practice the industry standard approach to the design, development and implementation of complex software systems. The B.S. Software Engineering Degree is designed for students who want a strong background in software development.

Program Code

443

Program Learning Outcomes (PLOs)

1. Know how to learn.
2. Possess well-developed problem-solving skills.
3. Work effectively with others to accomplish a shared vision.
4. Project a positive attitude (be enthusiastic, passionate, optimistic, and tenacious).
5. Have a firm foundation in the principles and practices of software engineering.
6. Convert software requirements into high-quality working systems.
7. Be a disciple leader with a strong testimony.
8. Create innovative products that add value.





- To graduate with a Bachelor's degree, a student must earn:
 - grades of C- or higher in major courses
 - a 2.0 cumulative GPA
 - a minimum of 120 cumulative credits
- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.
- No double counting of courses.

Program Course Requirements



General Education

39

Total Credits



- Take at least 39 credit(s) to complete one of the following program(s): [GE - BACH](#)

Computing Fundamentals

11

Total Credits



- Take the following:

- [CSE170](#) - Introduction to Technical Teamwork (2)
- [ECEN106](#) - Computer Systems (2)
- [ITM220](#) - SQL (3)
- [WDD130](#) - Web Fundamentals (2)
- [WDD131](#) - Dynamic Web Fundamentals (2)

Introductory Core

4

Total Credits



- Take the following:

- [CSE110](#) - Introduction to Programming (2)
- [CSE111](#) - Programming with Functions (2)

Core

8

Total Credits



- Take the following:

- [CSE210](#) - Programming with Classes (2)
- [CSE212](#) - Programming with Data Structures (2)
- [CSE300](#) - Professional Readiness (1)



- Take the following:
 - [CSE370](#) - Software Engineering Principles (2)
 - [ITM300](#) - Cloud Foundations (3)

Component(s)**13 - 15**

Total Credits



- Complete 1 of the following

Embedded Systems Certificate

- Take at least 13 credit(s) to complete one of the following program(s): [C168](#)
- Full Stack Web Development Certificate
- Take at least 14 credit(s) to complete one of the following program(s): [C180](#)
- Software Design Certificate
- Take at least 15 credit(s) to complete one of the following program(s): [C165](#)
- Software Quality Assurance Certificate
- Take at least 14 credit(s) to complete one of the following program(s): [C164](#)

Experiential Learning**5 - 8**

Total Credits



- Complete all of the following

- Take 2 credit(s) from:
 - [CSE199R](#) - Freshman Discovery Project (1 - 2)
AND
 - Take the following:
 - [CSE399R](#) - Product Development Project (2)
AND
 - Take 1 of the following:
 - [CSE397](#) - Professional Career Project (3)
 - [CSE398](#) - Internship (1 - 4)

Senior Project**3**

Total Credits



- Complete 1 of the following

Option 1:

- Take the following:
 - [CSE499](#) - Senior Project (3)

Option 2:

- Take the following:
 - [CSE499A](#) - Senior Project, Part A (2)



- Take at least 8 credit(s) from
From any 300- or 400-level CIT, CS, CSE, CYBER, DS, ECEN, ITM, or WDD course not already completed as a part of the major.

Unspecified Electives**19**

Total Credits



- Take at least 19 credit(s) from
any eligible university credits.

In addition to courses meeting the requirements for this program, students can take other courses offered by the university, for which they meet the course eligibility requirements, to bring their total number of credits to the minimum of 120 credits required for graduation. Additional credits may also come from credits received through General Education courses.

Grand Total Credits: 115 - 120**Degree**

Bachelor of Science (BS)

Department

Department of Computer Science and Engineering

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BYU-Idaho Academic Catalog

Software Management (Cluster)

Program Description



A cluster of courses designed to prepare students in Software Engineering, supplemental to a major.

Program Code

7008

Program Course Requirements



Core Courses

12 - 13

Total Credits



- Complete all of the following
 - Take the following:
 - [BUS321](#) - Organizational Leadership (3)
 - [CSE272](#) - Software Lifecycle Models (2)
 - [CSE372](#) - Requirements Elicitation (2)
 - [CSE471](#) - UX Research (3)
 - AND
 - Take 1 of the following:
 - [CSE270](#) - Software Testing (3)





BYU-Idaho Academic Catalog

Software Management (Minor)

Program Description



This program provides students with a breadth of experience across many computing disciplines and also provides a depth in principles and practices of managing software projects. It is designed to complement majors outside of computer science and software engineering.

Program Code

266

Program Course Requirements



Introductory Core

12 - 13

Total Credits



- Complete all of the following
 - Take the following:
 - [CYBER201](#) - Cybersecurity Fundamentals (2)
 - [CSE110](#) - Introduction to Programming (2)
 - [CSE170](#) - Introduction to Technical Teamwork (2)
 - [ECEN106](#) - Computer Systems (2)
 - [WDD130](#) - Web Fundamentals (2)

AND



**Core****10**

Total Credits

- Take the following:
 - [BUS321](#) - Organizational Leadership (3)
 - [CSE272](#) - Software Lifecycle Models (2)
 - [CSE372](#) - Requirements Elicitation (2)
 - [CSE471](#) - UX Research (3)

Grand Total Credits: 22 - 23

Department

Department of Computer Science and Engineering

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BYU-Idaho Academic Catalog

Software Quality Assurance (Certificate)

Program Description



This certificate provides students with the technical background, skill set and methodology to be a quality assurance engineer.

Program Code

C164

Program Learning Outcomes (PLOs)

1. Be able to convert user input, requirements, and specifications into test cases.
2. Be able to understand the system design to formulate a comprehensive test plan.
3. Be able to communicate system issues in a precise, tactful, and cordial manner.
4. Be curious, tenacious, and systematic about investigating and resolving issues.
5. Possess a holistic understanding of the software development process.
6. Possess sufficient coding skills to communicate with software developers and write test automation.

Program Notes





- Completion of this certificate does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.

Program Course Requirements



Certificate Core

14

Total Credits



- Take the following:
 - [CSE270](#) - Software Testing (3)
 - [CSE372](#) - Requirements Elicitation (2)
 - [CSE453](#) - Computer Security (3)
 - [CSE471](#) - UX Research (3)
 - [ITM350](#) - IT Management and DevOps (3)

Grand Total Credits: 14

Department

Department of Computer Science and Engineering

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BYU-Idaho Academic Catalog

Special Education Generalist K-8 (Minor)

Program Description



Prepares students to work with children with special needs from kindergarten through eighth grade. Students will be engaged in applied coursework and fieldwork involving children in a variety of settings that qualify the student to work with children in kindergarten through eighth grade in a school and agency setting. Successful completion of the Special Education Generalist K - 8 minor requirements along with an Elementary Education major, qualifies the student for the associated Special Education Idaho teaching certificate.

Program Code

280

Program Learning Outcomes (PLOs)

1. Use assessment data to design, deliver, and evaluate standards-based, developmentally appropriate, differentiated instruction for diverse learners.
2. Provide emotionally and physically safe, nurturing, inclusive learning environments that encourage positive interaction between students, establish high expectations, and value all students as children of God.
3. Use inquiry, reflection, and guidance by the spirit to progress as teacher-learners and contribute to professional communities.
4. Develop purposeful professional relationships that empower communication and collaboration with students, families, colleagues, and community stakeholders.



Program Course Requirements



Minor Core

24

Total Credits



- Take the following:
 - [ECSE421](#) - Family and Community Relationships (2)
 - [SPED300](#) - Assistive Technology (2)
 - [SPED380](#) - Legal Issues (3)
 - [SPED381](#) - Evidence-Based Practices (3)
 - [SPED393](#) - Social Behavior Strategies for Students with Disabilities (3)
 - [SPED410](#) - Special Education Focused Practicum (4)
 - [SPED424](#) - Assessment and Evaluation (4)
 - [SPED441](#) - Students with Severe Disabilities (3)

Grand Total Credits: 24

Department

Department of Elementary, Early, and Special Education



BYU-Idaho Academic Catalog

Special Education K-12 Generalist (Major: Bachelor-Level)

Program Description

^

Special Education (SPED) prepares students to support the instruction and development of children with disabilities in both public and private settings from kindergarten to twelfth grade and to seek certification in the state of Idaho as a Special Education Generalist (K-12 Generalist). Core content covered by the program includes special education law, assistive technology, exceptional students (including students with severe and profound disabilities), assessment and evaluation, MDT/IEP procedures, behavior modification and supports, and multi-tiered systems of support.

Program Code

985

Program Learning Outcomes (PLOs)

1. Emulate teaching in the Savior's way to empower learners to reach their divine potential.
2. Develop plans (IEP's, transition plans, and behavior plans) that adhere to applicable laws, rules, regulations, and procedural safeguards.
3. Implement evidence-based strategies (instructional and behavioral) to promote learning, self-advocacy, and independence for individuals with exceptionalities.
4. Foster inclusive learning environments where curriculum is accessible, and all students are welcome.
5. Make decisions based on valid data, using technically sound assessments.
6. Collaborate with educational stakeholders to advocate for students with exceptionalities.



- grades of C- or higher in major courses
- a 2.0 cumulative GPA
- a minimum of 120 cumulative credits
- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.

Program Course Requirements



General Education

33

Total Credits



- Complete all of the following

- Take at least 33 credit(s) to complete one of the following program(s): [GE - TEACH](#)
- SCIED 259 is recommended as part of GE requirements.

Education Core

30

Total Credits



- Take the following:

- [EDCOR200](#) - Teaching as a Profession (2)
- [EDCOR310](#) - Educational Psychology and Human Development (3)
- [EDCOR320](#) - Assessment Methods and Analysis (2)
- [EDCOR325](#) - Instructional Methods and Technology (3)
- [EDCOR340](#) - Diverse and Exceptional Students (3)
- [EDCOR365](#) - Idaho Comprehensive Literacy #1 (3)
- [EDCOR465](#) - Language Arts Methods (2)
- [EDCOR480](#) - Management and Professional Ethics (2)
- [EDCOR492](#) - Student Teaching (10)

Core

57

Total Credits



- Complete all of the following

- Take the following:
 - [CHILD210](#) - Child Development (3)
 - [ECSE421](#) - Family and Community Relationships (2)
 - [ED245](#) - Early Field Practicum (2)
 - [ED246](#) - Elementary Education Motivation and Classroom Leadership (2)
 - [ED345](#) - Idaho Comprehensive Literacy #2 (3)



- [SPED300 - ASSISTIVE TECHNOLOGY](#) (2)

- o [SPED310](#) - Exceptional Students: P-Grade 6 (3)
- o [SPED380](#) - Legal Issues (3)
- o [SPED381](#) - Evidence-Based Practices (3)
- o [SPED393](#) - Social Behavior Strategies for Students with Disabilities (3)
- o [SPED410](#) - Special Education Focused Practicum (4)
- o [SPED424](#) - Assessment and Evaluation (4)
- o [SPED435](#) - Senior Practicum (6)
- o [SPED441](#) - Students with Severe Disabilities (3)

AND

- o Take 5 credit(s) from:
 - o [PSYCH361](#) - Principles of Behavioral Learning (3)
 - o [PSYCH363](#) - Behavioral Interventions (3)
 - o [SPED423](#) - Autism Spectrum Disorders (2)
 - o [COMM450](#) - Conflict Resolution and Negotiation (3)

Grand Total Credits: 120

Degree

Bachelor of Science (BS)

Department

Department of Elementary, Early, and Special Education



BYU-Idaho Academic Catalog

Strategic Organizational Communication (Cluster)

Program Description



A cluster of courses (12-15 credits) designed to prepare students in Communication Management, supplemental to a major.

Program Code

2215

Program Course Requirements



Core Courses

12

Total Credits



- Take the following:
 - [COMM150](#) - Interpersonal Theory and Practice (3)
 - [COMM250](#) - Organizational Principles (3)
 - [COMM350](#) - Group Dynamics (3)
 - [COMM450](#) - Conflict Resolution and Negotiation (3)

Grand Total Credits: 12





BYU-Idaho Academic Catalog

Video Production (Cluster)

Program Description

A cluster of courses (12-15 credits) designed to prepare students in Video, supplemental to a major.

Program Code

2212

Program Course Requirements

Core Courses

6

Total Credits

- Take the following:
 - [COMM260](#) - Video Principles and Practices (3)
 - [COMM265](#) - Video and Film Production Essentials (3)

Supplemental Courses

6

Total Credits

- Take 6 credit(s) from:
 - [COMM360](#) - Video Journalism (3)
 - [COMM365](#) - Advanced Moving Image 1 (3)





Department

Department of Communication

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BYU-Idaho Academic Catalog

Video Production (Minor)

Program Description



The Video Production minor develops students to become capable video content creators, who research, plan and manage video production projects. Communication through video plays an increasingly large part in helping organizations and businesses inform, educate and entertain strategically identified target audiences. With a better understanding of this widespread medium and how to create video products, students in almost all fields can enhance their ability to communicate effectively. In addition to marketable technical skills, this degree also improves student preparation in fields where employees are needed to demonstrate project and time management skills and understand specific organization, market and audience needs.

Program Code

289

Program Learning Outcomes (PLOs)

1. Analyze the creation of video content in professional and ethical ways..
2. Identify target audiences and markets and match video products to audience and market needs.
3. Plan and create video productions in answer to specific market needs.
4. Create news pieces, advertisements, and short video, factual, and fictional narrative.

Program Notes





Program Course Requirements

**Core****24**

Total Credits

- Complete all of the following
 - Take 12 credit(s) from:
 - [COMM102](#) - Public Speaking (3)
 - [COMM111](#) - Writing for Communication Career (3)
 - [COMM130](#) - Visual Media (3)
 - [COMM140](#) - Mass Media and Society (3)
 - [COMM150](#) - Interpersonal Theory and Practice (3)
 - AND
 - Take the following:
 - [COMM260](#) - Video Principles and Practices (3)
 - [COMM265](#) - Video and Film Production Essentials (3)
 - [COMM362](#) - Broadcast Performance (3)
 - [COMM365](#) - Advanced Moving Image 1 (3)

Grand Total Credits: 24

Department

Department of Communication



BYU-Idaho Academic Catalog

Virtual Design and Construction (Major: Bachelor-Level)

Program Description



The Bachelor of Science in Virtual Design and Construction (VDC) is a comprehensive and interdisciplinary degree program designed to equip students with the knowledge and skills necessary to thrive in the rapidly evolving field of building information modeling and visualization, as it relates to the construction industry. The VDC program combines principles from architecture, engineering, construction management, and computer science. Graduates of the Virtual Design and Construction program will be prepared for diverse career paths in design and construction, including: Virtual Design and Construction Coordinator, BIM Coordinator, Construction Project Engineer, Construction Estimator, Construction Visualization Specialist, and Construction Project Manager.

Program Code

606

Program Learning Outcomes (PLOs)

1. Create written communications appropriate to the construction discipline.
2. Create oral presentations appropriate to the construction discipline.
3. Collaborate effectively within a team environment.
4. Create an accurate construction cost estimate.
5. Effectively schedule project activities.
6. Evaluate methods, materials, and equipment used to construct projects.
7. Interpret construction contract documents.



-
12. Create a professional graphic visualization demonstrating design principles and technical skills.
 13. Create a computer-generated Building Information Model that meets project requirements.

Program Notes ^

- To graduate with a Bachelor's degree, a student must earn:
 - grades of C- or higher in major courses
 - a 2.0 cumulative GPA
 - a minimum of 120 cumulative credits
- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.

Program Course Requirements ^

General Education

39

Total Credits ^

- Take at least 39 credit(s) to complete one of the following program(s): [GE - BACH](#)

Core

28

Total Credits ^

- Complete all of the following
 - Take the following:
 - [CONST105](#) - Survey of Virtual Design and Construction Management (1)
 - [VDC120](#) - Introduction to Computer Aided Design (3)
 - [VDC180](#) - Presentation Graphics I (3)
 - [VDC190](#) - Building Information Modeling I (3)
 - [VDC290](#) - Building Information Modeling II (3)
 - [VDC310](#) - Preconstruction Building Information Modeling (3)
 - [VDC385](#) - Presentation Graphics II (3)
 - [VDC400](#) - Design and Construction Technology (3)
 - [VDC410](#) - Architectural Design (3)
 - AND
 - Take 3 credit(s) from:
 - [VDC170](#) - Plan Reading (1)
 - [VDC370](#) - Contract Documents (2)



Construction Management

- Take the following:
 - [CONST120](#) - Framing Systems (3)
 - [CONST235](#) - Building Systems (4)
 - [CONST260](#) - Statics and Strength of Materials (3)
 - [CONST305](#) - Construction Estimating (3)
 - [CONST311](#) - Construction BIM (3)
 - [CONST315](#) - Field Scheduling (3)
 - [CONST380](#) - Project Management (2)
 - [CONST499](#) - Capstone: Construction Principles (2)

Technology

- Take the following:
 - [CSE110](#) - Introduction to Programming (2)

Experiential Learning**2**

Total Credits



- Take the following:

- [CONST298R](#) - Beginning Internship (1)
- [CONST498R](#) - Construction Internship (1)

Unspecified Electives**26**

Total Credits



- Take at least 26 credit(s) from any eligible university credits.

In addition to courses meeting the requirements for this program, students can take other courses offered by the university, for which they meet the course eligibility requirements, to bring their total number of credits to the minimum of 120 credits required for graduation. Additional credits may also come from credits received through General Education courses.

Grand Total Credits: 120

Degree

Bachelor of Science (BS)

Department

Department of Design and Construction Management





BYU-Idaho Academic Catalog

Visual Communication (Minor)

Program Description



The Visual Communication Minor will provide students with the knowledge and skills to create impactful graphics that drive modern communication. Every organization, business, brand, government, and group utilize visual communication to effectively get their message across.

Students of every discipline will be significantly more employable with the added ability to create photos, designs, illustrations, and motion graphics that communicate their messaging strategically to their audience. This minor will teach industry standard software and foundational design and compositional principles in demand in the marketplace today.

Program Code

290

Program Learning Outcomes (PLOs)

1. Implement visual principles in a legal and ethical way.
2. Show competence in industry-standard tools.
3. Demonstrate problem solving using different thinking modalities.
4. Create visual assets that communicate with an intended audience.
5. Showcase work in a persuasive format.





- NO double counting of courses between the minor and major.
- Courses designated with an 'R' may be repeated for a maximum of 8 credits.
- For specific recommendations regarding the minor, please visit the Communication Department in Spori 229.

Program Course Requirements

24

Total Credits

Core Courses

- Complete all of the following
 - Take 12 credit(s) from:
 - [COMM102](#) - Public Speaking (3)
 - [COMM111](#) - Writing for Communication Career (3)
 - [COMM130](#) - Visual Media (3)
 - [COMM140](#) - Mass Media and Society (3)
 - [COMM150](#) - Interpersonal Theory and Practice (3)
 - AND
 - Take the following:
 - [COMM300](#) - Digital Imaging (3)
 - [COMM305](#) - Vector Graphics (3)
 - [COMM310](#) - Creating Online Media (3)
 - [COMM316](#) - Professional Imaging (3)

Grand Total Credits: 24

Department

Department of Communication





BYU-Idaho Academic Catalog

Visual Communications (Cluster)

Program Description



A cluster of 12 credits with an emphasis on visual communication.

Program Code

2210

Program Course Requirements



Core Courses

12

Total Credits



- Take the following:
 - [COMM130](#) - Visual Media (3)
 - [COMM300](#) - Digital Imaging (3)
 - [COMM305](#) - Vector Graphics (3)
 - [COMM315](#) - Design for Social Media (3)

Grand Total Credits: 12

Department





BYU-Idaho Academic Catalog

Web and Computer Programming (Certificate)

Program Description



This certificate provides students with foundational computer programming and web design skills enabling them to contribute on software and web development teams.

Program Code

C129

Program Learning Outcomes (PLOs)

1. Write programs to accomplish meaningful tasks in a variety of domains.
2. Design websites that are visually appealing and effective.
3. Develop dynamic webpages that follow standards and best practices.
4. Learn and apply new technology and techniques in future programming.

Program Notes



- To be awarded an academic certificate independent of a bachelor's or an associate degree, a student must earn:
 - grades of C- or higher in required courses
 - a minimum certificate program grade point average of 2.0



**Certificate Core****12**

Total Credits



- Take the following:
 - [CSE110](#) - Introduction to Programming (2)
 - [CSE111](#) - Programming with Functions (2)
 - [CSE210](#) - Programming with Classes (2)
 - [WDD130](#) - Web Fundamentals (2)
 - [WDD131](#) - Dynamic Web Fundamentals (2)
 - [WDD231](#) - Web Frontend Development I (2)

Grand Total Credits: 12**Department**

Department of Computer Science and Engineering

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BYU-Idaho Academic Catalog

Web Design and Development (Major: Associate-Level)

Program Description



The internet and emerging technology have transformed many areas of our lives including business, entertainment, education, and the Church's reach to members and non-members alike around the world. Within industry, there is a great need for professionals who can effectively use the latest technologies to design and develop professional, interactive web applications.

Program Code

390

Program Learning Outcomes (PLOs)

1. Demonstrate well-developed problem-solving skills.
2. Demonstrate the ability to design and develop effective online solutions using current web technologies.
3. Demonstrate clear written and verbal communication skills.
4. Demonstrate the soft skills required to work constructively as team players.

Program Notes



- To graduate with an associate degree, a student must earn:
 - grades of C- or higher in major courses





Program Course Requirements



General Education

18

Total Credits



- Take at least 18 credit(s) to complete one of the following program(s): [GE - AAS](#)

Core

15

Total Credits



- Take the following:
 - [CSE110](#) - Introduction to Programming (2)
 - [CSE111](#) - Programming with Functions (2)
 - [ITM111](#) - Introduction to Databases (3)
 - [WDD130](#) - Web Fundamentals (2)
 - [WDD131](#) - Dynamic Web Fundamentals (2)
 - [WDD231](#) - Web Frontend Development I (2)
 - [WDD331R](#) - Advanced CSS (2)

Module(s)

24

Total Credits



- Complete all of the following

Design Module

- Take the following:
 - [ART125](#) - Adobe CC Basics (3)
 - [ART130](#) - Introduction to Graphic Design (3)
 - [ART230](#) - Typography I (3)
 - [CSE471](#) - UX Research (3)

Development Module

- Take the following:
 - [CSE340](#) - Web Backend Development (3)
 - [CSE341](#) - Web Services (3)
 - [WDD330](#) - Web Frontend Development II (3)
 - [WDD430](#) - Web Full-Stack Development (3)

Elective Major Credits

3

Total Credits



- Take 3 credit(s) from:



- [CSE270 - Programming with Classes \(2\)](#)
 - o [CSE270 - Software Testing \(3\)](#)
 - o [CSE300 - Professional Readiness \(1\)](#)
 - o [CSE325 - .NET Software Development \(3\)](#)
 - o [CSE372 - Requirements Elicitation \(2\)](#)
 - o [CYBER201 - Cybersecurity Fundamentals \(2\)](#)
 - o [ITM101 - Introduction to Cloud Technologies \(2\)](#)
 - o [ITM220 - SQL \(3\)](#)
 - o [ITM350 - IT Management and DevOps \(3\)](#)
 - o [MKT351 - Social Media Marketing \(3\)](#)
 - o [MKT353 - Web Business Creation \(3\)](#)

Grand Total Credits: 60

Degree

Associate of Applied Science (AAS)

Department

Department of Computer Science and Engineering



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BYU-Idaho Academic Catalog

Web Design and Development (Major: Bachelor-Level)

Program Description



The internet and emerging technology have transformed many areas of our lives including business, entertainment, education, and the Church's reach to members and non-members alike around the world. Within industry, there is a great need for professionals who can effectively use the latest technologies to design and develop professional, interactive web applications.

Program Code

590

Program Learning Outcomes (PLOs)

1. Demonstrate well-developed problem-solving skills.
2. Demonstrate the ability to design and develop effective online solutions using current web technologies.
3. Demonstrate clear written and verbal communication skills.
4. Demonstrate the soft skills required to work constructively as team players.
5. Create innovative products that add value.
6. Relate personal technical contributions to bigger picture, real-world problems.

Program Notes





- Graduation in this program does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.
- Some courses are not offered every semester. Check online for course availability.
- If you do not have previous experience with the Adobe CC tools, you should consider taking ART 125 before taking ART 130.

Program Course Requirements



General Education

39



Total Credits

- Take at least 39 credit(s) to complete one of the following program(s): [GE - BACH](#)



Core

17



Total Credits

- Take the following:
 - [CSE110](#) - Introduction to Programming (2)
 - [CSE111](#) - Programming with Functions (2)
 - [ITM101](#) - Introduction to Cloud Technologies (2)
 - [MKT353](#) - Web Business Creation (3)
 - [WDD130](#) - Web Fundamentals (2)
 - [WDD131](#) - Dynamic Web Fundamentals (2)
 - [WDD231](#) - Web Frontend Development I (2)
 - [WDD331R](#) - Advanced CSS (2)



Experiential Learning

9 - 11



Total Credits

- Complete all of the following

Product Development

- Take the following:
 - [WDD199](#) - Technology Product Development I (2)
 - [WDD299](#) - Technology Product Development II (2)
 - [WDD399](#) - Technology Product Development III (2)
 - [WDD499](#) - Technology Product Development IV (2)

Internship

- Take the following:
 - [ITM398R](#) - Internship (1 - 3)



29 - 30



Design Module

- Take the following:
 - [ART125](#) - Adobe CC Basics (3)
 - [ART130](#) - Introduction to Graphic Design (3)
 - [ART230](#) - Typography I (3)

Development Module

- Take the following:
 - [CSE210](#) - Programming with Classes (2)
 - [CSE340](#) - Web Backend Development (3)
 - [ITM220](#) - SQL (3)

Complete the Full Stack Engineer OR UX Designer module

- Complete 1 of the following
 - Option 1: Full Stack Engineer Module
 - Take the following:
 - [CSE325](#) - .NET Software Development (3)
 - [ITM300](#) - Cloud Foundations (3)
 - [WDD360](#) - Full Stack Foundations (4)
 - [WDD430](#) - Web Full-Stack Development (3)
 - Option 2: UX Engineer Module
 - Take the following:
 - [ART235](#) - Graphic Design (3)
 - [ART332R](#) - User Interface Design (3)
 - [ART431R](#) - User Experience Design (3)
 - [ART432R](#) - Design Thinking: User Research (3)

Unspecified Electives**23**

Total Credits



- Take at least 23 credit(s) from any eligible university credits.

In addition to courses meeting the requirements for this program, students can take other courses offered by the university, for which they meet the course eligibility requirements, to bring their total number of credits to the minimum of 120 credits required for graduation. Additional credits may also come from credits received through General Education courses.

Grand Total Credits: 117 - 120

Degree

Bachelor of Science (BS)

Department

Department of Computer Science and Engineering



BYU-Idaho Academic Catalog

Web Design (Minor)

Program Description

The internet and emerging technology have transformed many areas of our lives including business, entertainment, education, and the Church's reach to members and non-members alike around the world. Within industry, there is a great need for professionals who can effectively use the latest technologies to design and develop professional, interactive web applications.

Program Code

223

Program Notes

- No grade less than C- in Minor courses.
- No double counting of Minor courses.
- Some courses are not offered every semester. Please check online for course availability.

Program Course Requirements

Core

24

Total Credits

- Take the following:





- [CSE110 - Introduction to Programming \(4\)](#)
 - o [CSE111 - Programming with Functions \(2\)](#)
 - o [WDD130 - Web Fundamentals \(2\)](#)
 - o [WDD131 - Dynamic Web Fundamentals \(2\)](#)
 - o [WDD231 - Web Frontend Development I \(2\)](#)
 - o [WDD331R - Advanced CSS \(2\)](#)

Grand Total Credits: 24

Department

Department of Computer Science and Engineering

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BYU-Idaho Academic Catalog

Web Development (Minor)

Program Description



A group of courses (20-24 credits) designed to encourage focused learning in Web Development, complementary to an integrated standard degree or as an element of an interdisciplinary studies degree.

Program Code

230

Program Notes



- This Minor is for non-Web Design and Development students.
- No grade less than C- in Minor courses.
- No double counting of Minor courses.
- Some courses are not offered every semester. Check online for course availability.

Program Course Requirements



Core

24

Total Credits

- Complete all of the following





- [COMM130](#) Visual Media (2)

- o [WDD130](#) - Web Fundamentals (2)
- o [WDD131](#) - Dynamic Web Fundamentals (2)
- o [WDD231](#) - Web Frontend Development I (2)
- o [WDD330](#) - Web Frontend Development II (3)
- o [WDD331R](#) - Advanced CSS (2)

AND

- o Take 1 of the following:
 - o [CSE325](#) - .NET Software Development (3)
 - o [CSE341](#) - Web Services (3)
 - o [WDD430](#) - Web Full-Stack Development (3)

Grand Total Credits: 24

Department

Department of Computer Science and Engineering



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BYU-Idaho Academic Catalog

Web Frontend (Certificate)

Program Description



This certificate provides students with foundational skills in web frontend design and development enabling them to contribute on web development teams. It is designed specifically for campus students. Online and Pathway students may not declare this certificate.

Program Code

C176

Program Learning Outcomes (PLOs)

1. Demonstrate skills in web design, HTML, CSS and JavaScript.
2. Develop web pages that are semantic and valid using the HTML5 markup language.
3. Design web pages with valid Cascading Style Sheets (CSS) level 3 and avoid all HTML presentational markup.
4. Provide visually appropriate, usable, and findable content to both humans and machines.
5. Utilize skills in planning, designing, and developing web pages and sites according to best practices of organization and maintainability.
6. Show proficiency with current design principles as applied to the web.
7. Work effectively with others in a work environment by communicating clearly, fulfilling assignments and meeting deadlines.





earn:

- grades of C- or higher in required courses
- a minimum certificate program grade point average of 2.0
- Completion of this certificate does not imply or guarantee licensure or certification reciprocity or job attainment in Idaho or any other state or country.
- This certificate is only available to campus students.

Program Course Requirements



Certificate Core

15

Total Credits



- Complete all of the following
 - Take 1 of the following:
 - [ART130](#) - Introduction to Graphic Design (3)
 - [COMM130](#) - Visual Media (3)

AND

- Take the following:
 - [CSE110](#) - Introduction to Programming (2)
 - [CSE111](#) - Programming with Functions (2)
 - [WDD130](#) - Web Fundamentals (2)
 - [WDD131](#) - Dynamic Web Fundamentals (2)
 - [WDD231](#) - Web Frontend Development I (2)
 - [WDD331R](#) - Advanced CSS (2)

Grand Total Credits: 15

Department

Department of Computer Science and Engineering