edisonlearning®

Learning Across a Lifetime™

Career and Technical Education eCourse Catalog

Digital Learning Solutions

Career Preparatory Electives

Career Preparation Electives empower students to explore career and technical skills through interactive and reflective course content and assessments. Students engage in labs, discussions, and inquiry to address exciting elective topics. Each course is specifically designed to encourage career readiness.

Our career-focused eCourse curriculum offers pathways to prepare students for industry certifications, engage in career exploration, learn about forthcoming technologies, and examine the impact of such topics on our society and economy. This purposeful design allows educators and families to utilize Career Preparatory Electives for career preparation programs, virtual and blended learning, and homeschooling.

Courses and Career Clusters

Architecture & Construction
Architectural Design I
Architectural Design I
Building Maintenance Technologies I
Building Maintenance Technologies II
Construction: Fundamentals and Careers
LEED Green Associate Certification Course
Principles of Architecture

Arts, A/V Tech & Communications
Adobe Illustrator Certification Course
Adobe InDesign Certification Course
Adobe Photoshop Certification Course

Business Management & Administration
Entrepreneurship & Small Business Certification Course
Project Management
Startups and Innovation

Education & Training
Early Childhood Education
Early Childhood Education II
Introduction to Education & Teaching

Finance
Career Exploration in Finance QM
Fundamentals of Bitcoin & Cryptocurrency QM
Personal Finance

Health Science
Career Exploration in Dentistry QM
Career Exploration in Healthcare

Information Technology
Cloud Technologies and the Internet of Things QM
Cybersecurity
Fundamentals to Blockchain & Cryptography
Introduction to Artificial Intelligence
Java SE 8 Associate

Social Emotional Learning
Own It: Youth Empowerment Course

STEM
Aeronautics and Space Travel
Augmented and Virtual Reality Applications QM
Robotics: Applications and Careers
The History of Gaming and Esports QM
Wearable Technology Innovations QM

Transportation, Distribution & Logistics
Drones: Remote Pilot Certification Course
Smart Cities: Technology and Applications
Transportation Technologies QM

Architecture & Construction

Architectural Design I

In Architectural Design I, students will review various concepts used in the design and architecture field. They will learn about basic architectural and civil drawings as well as prepare for the Autodesk Certified User (CAD exam. A substantial portion of the course will be spent on sequential processes so that students develop an understanding of creating and annotating drawings, continued from the Principles of Architecture course.

Length: Year

Architectural Design II

In Architectural Design II, students will review various concepts used in the design and architecture field. They will learn about additional CAD functions, professional ethics, and legal responsibilities as well as explore career options and complete a comprehensive Architectural Design project.

Length: Year

Building Maintenance Technologies I

The Building Maintenance Technology course will focus on all aspects of the construction industry from health and safety to the tools that every construction professional needs in their collection. Students will learn about the various roles in the industry as well as job outlooks, educational and experiential requirements, and salary information. Some activities will focus on career exploration to discover career options that best align with interests and talents. Students will learn basic construction math and how it is applied during design and building phases of projects. They will learn specifics about carpentry, construction drawings, framing floor systems, framing walls, and framing roofs. Throughout, they will establish a foundation for what opportunities exist for them in the industry.

Length: Year

Building Maintenance Technologies II

The Building Maintenance Technology II course will focus on construction component, masonry skills, and OSHA. Students will learn about the various masonry and concrete skills as well as safety measures. Some activities will focus on real-world application of learned skills with hands on components. Students will learn about erecting, plumbing, and bracing in relation to concrete as well as laying masonry units. Finally, students will learn important science skills for the construction industry and prepare for OSHA 30-hour certification.

Length: Year

Construction: Fundamentals and Careers

This course introduces students to the evolving industry of construction! In addition to building on standard concepts such as technical skills, project planning, and regulations, students will learn about the variety of career possibilities within construction. They will also explore the entrepreneurial side of construction and discover what it takes to start and run your own business in this field. Finally, the course will look towards the future and analyze trends in green materials, energy efficiency, and technology to determine how these will impact the homes we build and live in.

Length: Year

LEED Green Associate Certification Course*

This course introduces students to the LEED process. LEED, or Leadership in Energy and Environmental Design, is the global standard for green building certification. Throughout the course, students will gain an understanding of the various components of green building. The themes of sustainability and sustainable construction are woven throughout each module both in terms of physical environment and as it pertains to LEED certification.

Certification Exam Available* **Length: Semester**

Principles of Architecture

In Principles of Architecture, students will review various concepts used in the design and architecture field. They will learn about basic drafting equipment and how to use and maintain it. They will analyze challenges and solutions within the development of design. They will also learn how to prepare drawings manually and using AutoCAD software. A substantial portion of the course will be spent on sequential processes so that students develop an understanding of creating and annotating drawings as well as how to apply standard rules regarding line types, offset objects, creating layers, and setting up a page for plotting. They will also explore three-dimensional drawing and use coordinating and navigation systems to create them.

Length: Year

* EdisonLearning does not provide certification exams

Arts, A/V Tech & Communications

Adobe Illustrator Certification Course*

This course introduces students to the Adobe Illustrator and prepares students to take the ACA Certification Exam on Illustrator. Students will get an insight into what it is like working in the graphic design industry. Students will learn everything from absolute basics like navigating Illustrator to performing complex tasks like managing colors, drawing, creating illustrations, and much more. The course contains guided video tutorials, hands-on projects, and step-by-step resources that help students learn how to work in Illustrator.

Required: Adobe Illustrator* | **Certification Exam Available*** | **Length: Semester**

Adobe InDesign Certification Course*

This course introduces students to the world of Adobe InDesign and prepares students to take the ACA Certification Exam on InDesign. Students will get an insight into what it is like working in the print and digital media publishing industry. Over 10 modules, students will learn everything from absolute basics like navigating InDesign to performing complex tasks like creating multi-page documents, applying effects, and even creating original artwork. The course contains guided tutorials, do-it-yourself projects, and great resources that will help students practice and learn how to work in InDesign.

Required: Adobe InDesign* | **Certification Exam Available*** | **Length: Semester**

Adobe Photoshop Certification Course*

This course prepares students to demonstrate expertise in Adobe's Photoshop software and take the ACA Certification Exam on Photoshop. Students will learn through engaging and interactive content, projects, and practice exam items aligned to the learning objectives outlined by Adobe's exam specifications. Students will leave this course with career-ready, real-time skills in one of the most popular software programs in the world!

Required: Adobe Photoshop* | **Certification Exam Available*** | **Length: Semester**

*** Purchase of Adobe Software Suite required | * EdisonLearning does not provide certification exams**

NOTES:

Business Management & Administration

Entrepreneurship & Small Business Certification Course*

This course prepares students for the Entrepreneurship and Small Business Certification exam. This certification has been designed to test concepts around starting and managing a small business. These topics include entrepreneurship, evaluation of opportunities, preparation to start a business, operation of a business, marketing, and management of finances. Students gain insights and understand real-world applications that will not only allow them to succeed in passing the certification exam, but also in successfully starting, working in, or running a small business.

Required: None **Length: Semester**

Project Management

The Project Management course is intended to identify the key components of a career as a project manager. Students will review the basics in project management terminology, such as designating distinctions among projects, products, programs, and portfolios. They will delve into concepts like managing deliverables and creating engaging relationships with stakeholders. The primary components of project planning will be laid out and described in detail. Students will explore teams and organizational structures. They will discover project management tools and innovation being used in the industry. Overall, they will develop a greater understanding of the mechanisms that are in place to effectively carry out projects of any size through specific project management techniques. Throughout the course, they will review questions and topics from the Project Management Ready™ exam.

Required: None **Length: Semester**

Startups and Innovation

Students hear a lot of contradictory advice in life. On one hand, they may hear something like "Follow your dreams. Pursue your passion and the money will come!" On the other hand, they may hear something completely opposite, like "Most startups fail! It's much safer to get a safe, steady job." So which side is right? Given the massive changes to the economy and society, the skills of entrepreneurship are going to be critical in building a lasting career. The entrepreneurial mindset of searching for opportunities, creating value, and solving pain points will always be valuable. And this mindset applies not just to starting a business, but in any organization that someone is a part of: school, established companies, or non-profits. In this course, students will explore how to use this mindset to create the next world-class startup.

Required: None **Length: Semester**

*** EdisonLearning does not provide certification exams**

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Education & Training

Early Childhood Education I

The Early Childhood Education course is designed to provide an overview of the expectations and roles of the early childhood educator. The course provides details about childhood development, health, nutrition, and guidance strategies to help students understand the exciting and unique opportunities that a career in early childhood education can offer. The course is intended to prepare students for challenges they may face, but to emphasize the rewards of being able to influence the life of a young child. The ability to offer support to children as they learn, and grow is a point that is highlighted throughout each lesson.

Required: None **Length: Semester**

Early Childhood Education II

The Early Childhood Education Two course is designed to provide an overview of the professional expectations of being an early childhood educator. Throughout the course, students will learn about what it means to be a professional, including the significance of professional development in any educational role. They will review observational methods and the history of education in the United States, with a focus on early childhood and school-age programs. They will spend a significant portion of the course learning about the importance of Developmentally Appropriate Practice and how to implement DAP strategies. Designing physical, social, and temporal environments will also be a major focus of the course, as will developing relationships with families and communities to strengthen their position and knowledge.

Required: None **Length: Semester**

Introduction to Education & Teaching

This course is designed to prepare future educators for the classroom they will inherit! It starts with a history of education and how blended, adaptive, and personalized learning are coming to the forefront in learning. It then explores new and emerging technologies, along with their current and future impact on education. Throughout the course, students will explore a wide range of career possibilities in the education field and evaluate both the promises and the pitfalls of technology in education.

Required: None **Length: Semester**

NOTES:

Finance

Career Exploration in Finance

This course introduces students to the Adobe Illustrator and prepares students to take the ACA Certification Exam on Illustrator. Students will get an insight into what it is like working in the graphic design industry. Students will learn everything from absolute basics like navigating Illustrator to performing complex tasks like managing colors, drawing, creating illustrations, and much more. The course contains guided video tutorials, hands-on projects, and step-by-step resources that help students learn how to work in Illustrator.

Required: None **Length: Semester**

Personal Finance

The Personal Finance course is intended to prepare students to be successful financial citizens. They will learn their role and responsibilities as a responsible financial planner and saver as well as learn about the services, functions, and products of the financial industry. In addition, they will make informed buying decisions and understand personal taxation, wills, insurance, and contracts. Finally, they will learn about saving and investing as well as consumer credit and loans.

Required: None **Length: Semester**

Fundamentals of Bitcoin & Cryptocurrency

Upon completion of this course, students will understand Bitcoin, including its history, development, and context within the modern global economy. Students will learn the basic cryptographic principles that underlie Bitcoin, and gain confidence by demonstrating strong security principles in storing and transaction Bitcoin. Key principles such as mining, wallets, and hashing will be introduced. And finally they will be familiarized with the nascent industry of digital currencies and how they function.

Required: None **Length: Semester**

Health Science

Career Exploration in Dentistry

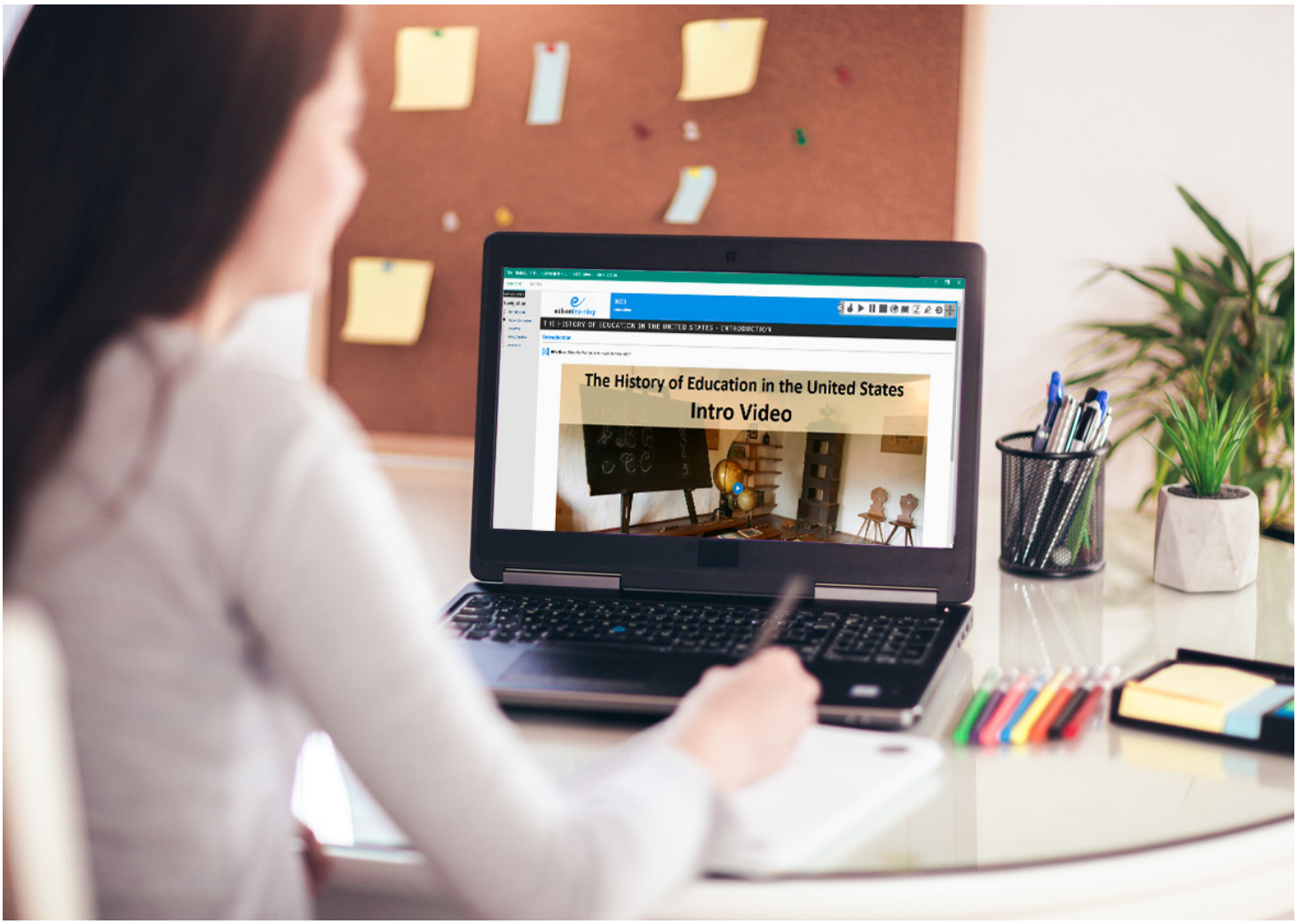
This course introduces students to the exciting and varied career opportunities in the dentistry profession, from dental assistant all the way up through oral surgeon. Students will review the history of dentistry globally and in the U.S., and will learn key dental terminology. The course will introduce the roles and tasks done as well as skills and education required of nearly every member of the dental staff. Students will gain an understanding of what it takes to perform each position, and how they work together.

Required: None **Length: Semester**

Career Exploration in Healthcare

This course introduces students to the exciting and varied career opportunities in the health care industry that will be in demand in their future! The course will introduce the roles and tasks, identify education and skills needed, identify responsibilities of roles which support or supervise their role, analyze legal and ethical responsibilities, limitations, and implications for each of these professions.

Required: None **Length: Semester**



Information Technology

Cloud Technologies and the Internet of Things

First, we had the Internet of computers. Then with the advent of email and social media, along with mobile technology, it became the Internet of people. Today's world is increasingly becoming the Internet of things. With advances in battery power, sensors, and computer chips, more and more devices are being connected to the Internet. This will allow them to be monitored, controlled, and used more effectively for people and businesses. This course will examine the trends and opportunities surrounding the Internet of Things. Students will learn about the technologies, hardware, and software that underpin the Internet of Things. The course will examine a variety of end-market applications in our homes, businesses and cities. Finally, students will learn about the many career opportunities that the Internet of Things will enable.

Required: None **Length: Semester**

Cybersecurity

In the Cybersecurity course, students will learn about the practice of protecting networks, systems, and programs from digital attacks. They will better understand the aim of these attacks, such as destroying information, extorting money and resources, or disrupting business operations. They will learn about the challenges and opportunities that implementing cybersecurity measures can present. As attackers become more innovative, it is more important than ever to have effective cybersecurity channels in place to counter them. Students will learn about countermeasures and role recovery and their integral function in the cybersecurity realm. Additionally, students will learn what makes certain networks and systems more vulnerable to attacks. They will become adept at identifying potential viruses, worms, threats, and malware. The Cybersecurity course acts as a foundation on which to build extensive knowledge about threats to digital security.

Required: None **Length: Semester**

Fundamentals of Blockchain & Cryptography

Blockchain seems to be the latest buzzword that the business world is talking about. But what is it? And why should a high school student care? This course will seek to answer those questions. It will strip away the layers of complexity and sophistication to help students understand the key concepts of the blockchain. The course will introduce and discuss areas where blockchain has the greatest potential.

Required: None **Length: Semester**

Introduction to Artificial Intelligence

This course teaches what every student should know about artificial intelligence. AI is a fast-moving technology with impacts and implications for both our individual lives and society as a whole. In this course, students will get a basic introduction to the building blocks and components of artificial intelligence, learning about concepts like algorithms, machine learning, and neural networks. Students will also explore how AI is already being used, and evaluate problem areas of AI, such as bias. The course also contains a balanced look at AI's impact on existing jobs, as well as its potential to create new and exciting career fields in the future. Students will leave the course with a solid understanding of what AI is, how it works, areas of caution, and what they can do with the technology.

Required: None **Length: Semester**

Java SE 8 Associate*

The Java SE 8 course is designed to provide preparation for the Oracle Certified Associate (OCA) exam. Throughout the course, students will learn about Java from the basics to string builder methods. They will spend a significant portion of the course learning about the basics of Java, data types, operators, arrays, loop constructs, encapsulation, inheritance, exceptions, and API.

Required: None	Certification Exam Available*	Length: Semester

* EdisonLearning does not provide certification exams

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STEM

QUALITY MATTERS
QM

Aeronautics and Space Travel

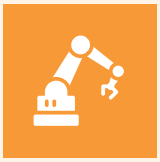
This course introduces students to the history and near future of space travel. Students will explore the possibilities of moon bases, Mars colonies, and visiting the outer planets in our solar system and their moons. Students will also discuss important ethical and legal issues around space exploration, such as asteroid mining and war in space. The course gives an expansive view of the technologies, science, and theories that will make far-fetched dreams into realities during the student's lifetime.

Required: None **Length: Semester**

Augmented and Virtual Reality Applications

Separating hype from reality is hard... especially in the fast-growing and evolving space of augmented and virtual reality (AR/VR). Recent advances in technology has allowed AR/VR systems to become extremely sophisticated and realistic. This course introduces students to the technologies that underpin AR/VR systems. Then the course walks through 5 applications of AR/VR and how they will change and impact numerous aspects of our lives and the economy. Students will also learn about and discuss the risks and side effects of these systems, including health, privacy, and ethical implications.

Required: None **Length: Semester**



Robotics: Applications and Careers

It seems like many elementary to high school robotics courses are focused on coding a simple robot to move its mechanical arm up and down. This course, in contrast, teaches students what a robot is and how it relates to other key technologies such as artificial intelligence and machine learning. Then the course examines 10 applications of robots and how they will change and impact various aspects of our lives and the economy. Will robots simply steal our jobs, or will they be a tool that will create new opportunities and even free humans to use our creativity and curiosity to their full potential? Students will grapple with this and many other questions as they explore this vital, future-focused subject.

Required: None **Length: Semester**

NOTES:

The History of Gaming and Esports

In this course, students will learn about the technologies and design principles that have been the foundation of the development of video game technology over the last 50 years. Students will examine and discuss the impact of video games on culture and the economy. Students will learn about the current gaming and e-sports landscape, including strategies and techniques of top teams and individuals. This course will also discuss the risks and dangers of video games and understand how to set appropriate time and content parameters. Finally, the course will identify career paths and opportunities for those who are passionate about gaming.

Required: None **Length: Semester**

Wearable Technology Innovations

From hearing aids to pedometers to smart watches, humans have made and worn devices to overcome physical deficiencies, count their steps, and communicate. With the continued miniaturization of chips and sensors, combined with increasing sophistication of artificial intelligence, wearable technology has proliferated into countless end-markets. This course will introduce students to wearable technologies and the components and software that make these technologies possible. The course will also evaluate several applications of wearable technologies in various industries. Finally, the course will examine and discuss the implications of wearable technology, including its pros and cons, and potential implications to our health, privacy, and society.

Required: None **Length: Semester**

Transportation, Distribution & Logistics

Drones: Remote Pilot Certification Course*

This course prepares students to take the Federal Aviation Administration's Part 107 exam, which is essential to becoming a commercial drone pilot. The field of unmanned aerial vehicles is growing rapidly, as the opportunities to use them for search and rescue, photography, recreation, inspection, and many others continue to multiply. Students will learn the critical facts to prepare for the test's topics, which include: regulations, airspace and requirements, weather, loading & performance, and operations. The course will conclude with a look at the most promising careers in the field of drones.

Required: None **Length: Semester**

Smart Cities: Technology and Applications

This course will provide students with an overview of smart cities. The course will begin by providing a foundational explanation of what constitutes a smart city and why they are beginning to pop up around the globe. With a firm understanding of what a smart city is, the majority of the course will focus on various aspects of them such as energy, transportation, data, infrastructure, mobility, and Internet of Things devices. The course will conclude with an analysis of careers related to smart cities.

Required: None **Length: Semester**

Transportation Technologies

This course introduces students to the newest and most cutting edge futuristic transportation technologies out there. Students gain familiarity with the history of transportation development and understand a framework with which to evaluate new transportation modes. Then the course dives into 10 different technologies on the horizon. Students examine the technologies, the pros and cons of each mode, and explore potential career paths in these emerging fields.

Required: None **Length: Semester**

QUALITY MATTERS QM

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