

REQUIRED MATERIALS

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Course Code: EDL085

3D Modeling

Course Description

Are you interested in a career in technology? Are you curious about working in fields like virtual reality, video game design, marketing, television and motion pictures, or digital imaging? If so, this course in 3D Modeling is a great place to start as it is the foundation for all these career paths. Gain a deeper understanding of graphic design and illustration as you use 3D animation software to create virtual three-dimensional design projects. Hone in on your drawing, photography, and 3D construction techniques and develop the skills needed to navigate within a 3D digital modeling workspace. This course is an excellent introduction to careers in the fast-growing field of technology and design.

Required Materials

This course was created using **Blender version 2.79b** and requires a computer running Windows Vista and above, Mac OSX 10.6 and above, or Linux

Minimum hardware requirements:

- 32-bit dual core 2Ghz CPU with SSE2 support
- 2 GB RAM
- 24 bits 1280×768 display
- Mouse or trackpad
- OpenGL 2.1 compatible graphics with 512 MB RAM

Recommended hardware requirements:

- 64-bit quad core CPU
- 8 GB RAM
- Full HD display with 24 bit color
- Three button mouse
- OpenGL 3.2 compatible graphics with 2 GB RAM

For Unit 1 Activity:

- Drawing paper or online drawing tool
- Protractor
- Pens and pencils
- Ruler
- Objects or graphics representing different polygons



Course Code: EDL249

Allied Health Assistant 1a: Introduction

Course Description

Are you passionate about helping people and making a difference in their lives? Explore your options by learning how to properly care for your patients and provide for the administrative needs of healthcare. Learn to prepare exam room, schedule, bill and document all while solidifying your professional skills in communication, privacy, safety, and ethics.

Required Materials

- Computer with:
 - Internet access
 - Word processing program
 - Slideshow creation program
 - Optional spreadsheet program
- Cell phone, tablet, or computer camera with sound and video recording abilities
- Food prep materials to make a healthy meal (ingredients and utensils)
- 1 person (family, friend, classmate) or a child's doll on which to demonstrate procedures and to use in videos



Access
Office Fundamentals Series

Course Code: EDL232

Access

Course Description

Learn to create, manage, and link databases for essential business operations. Develop your database, design, and planning skills and learn to implement security features to protect and back-up your important data. Put your new skills into practice with a capstone project. Content of this course will be applicable to the Microsoft Office Suite certification exam.

Required Materials

- Computer (with internet access and the ability to record audio)
- Microsoft Access
- Word processing software (Word, Google Docs, etc.)
- Presentation software (PowerPoint, Google Slides, etc.)
- Printer (optional)



Course Code: EDL064

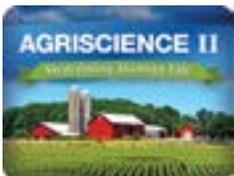
Advertising and Sales Promotion

Course Description

What comes to mind when you think of ‘marketing’? Perhaps a familiar television jingle plays in your head? Or maybe you think of those irritating sales phone calls? There’s no denying the sheer magnitude and power of the marketing industry. Every year companies spend approximately \$200 billion promoting their products and services—and that’s just in the United States alone! You may be familiar with being on the receiving end marketing, but what’s it like on the other side? In Advertising and Sales Promotions, you’ll see how these marketing campaigns, ads, and commercials are brought to life and meet some of the creative folks who produce them. You’ll learn about different marketing career opportunities and discover ways to be part of this exciting, fast-paced industry.

Required Materials

- A digital camera or camera phone



Course Code: EDL066

Agriscience 2: Sustaining Human Life

Course Description

Science and technology are revolutionizing many areas of our lives, and agriculture is no exception! From aquaculture to genetic engineering, agriscience is finding new ways to better produce and manage plants, animals, and other natural resources. In Agriscience 2, you’ll build on your existing knowledge of plant and animal science and delve deeper into important areas such as soil science and weed management. You’ll also explore research on plant and animal diseases as well as the insects and other pests that can impact agricultural enterprises and natural resources.

Required Materials

- Plant seeds or cuttings
- Growing media
- Growing container
- A sharp blade and rooting hormone, depending on the plant you choose
- Soil or other growing media
- Soil test kit
- 2-3 pots
- Seeds of your choice (make sure your growing medium is appropriate for the seed you chose)
- Plant
- Pest management materials (vary based on chosen strategy)



Course Code: EDL090

American Sign Language 1a: Introduction

Course Description

Did you know that American Sign Language (ASL) is the third most commonly used language in North America? American Sign Language 1a: Introduction will introduce you to vocabulary and simple sentences, so that you can start communicating right away. Importantly, you will explore Deaf culture – social beliefs, traditions, history, values and communities influenced by deafness.

Required Materials

- Computer with:
 - Internet access
 - Word processing program
 - Slideshow creation program
- Cell phone, tablet, or computer camera with sound and video recording abilities
- A person, large stuffed animal, or chair
- 2 people (family, friend, classmate) to use in videos and lead a discussion with
- A photo (or even a drawing) of your family
- A hat—silly, crazy, or ordinary is fine
- Blank Paper
- Drawing tools (pencils, markers, etc.)

Note: Sign order should not be the focus of this course. While students should make an effort to put things into ASL sign order when appropriate, grading should not be based on this. Please also be aware that while you may learn particular signs one way, it's possible others may learn the same signs in a slightly different manner. As in any language, there are many variances between signs and signers, as well as regional and cultural differences. Signs may also be shortened or simplified for the ease of conversation.



Course Code: EDL134

American Sign Language 1b: Learning to Sign

Course Description

The predominant sign language of Deaf communities in the United States, American Sign Language is a complex and robust language. American Sign Language 1b: Learn to Sign will introduce you to more of this language and its grammatical structures. You will expand your vocabulary by exploring interesting topics like Deaf education and Deaf arts and culture.

Required Materials

- Computer with:
 - Internet access
 - Word processing program
 - Slideshow creation program
- Cell phone, tablet, or computer camera with sound and video recording abilities
- A person, large stuffed animal, or chair
- 2 people (family, friend, classmate) to use in videos and lead a discussion with
- A photo (or even a drawing) of your family
- A hat—silly, crazy, or ordinary is fine
- Blank Paper
- Drawing tools (pencils, markers, etc.)

Note: Sign order should not be the focus of this course. While students should make an effort to put things into ASL sign order when appropriate, grading should not be based on this. Please also be aware that while you may learn particular signs one way, it's possible others may learn the same signs in a slightly different manner. As in any language, there are many variances between signs and signers, as well as regional and cultural differences. Signs may also be shortened or simplified for the ease of conversation.



Course Code: EDL106

American Sign Language 2a: Communicating

Course Description

Building upon the prior prerequisite course, emphasis in this course is placed upon comprehension and signing. Learners will also continue to establish their communication skills and foster their understanding of deaf culture. In addition to learning classifiers, glossing, and mouth morphemes, students will explore vocabulary for descriptions, directions, shopping, making purchases, and dealing with emergencies.

Required Materials

- A camera (cell phone, table, or computer camera is fine)
- Photo of family or friends

Note: It is strongly recommended that schools create a venue in which ASL 2a students can interact with each other and practice their newly acquired skills.



Course Code: EDL135

American Sign Language 2b: Advancing Communication Skills

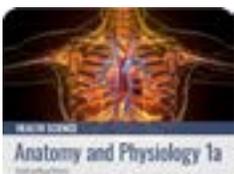
Course Description

Building upon the prior prerequisite course, students will increase their proficiency by learning about sequencing, transitions, role-shifts, and future tenses. Students will learn how to tell a story and ask questions, benefiting with greater exposure to deaf culture. Speed, conversations, signing skills, and cultural awareness are characteristic of this course.

Required Materials

- A camera (cell phone, tablet, or computer camera is fine)
- Screen-capture software to record conversation or camera with ability to record conversation
- Computer or tablet to play video
- Simple video editing software

Note: It is strongly recommended that schools create a venue in which ASL 2a students can interact with each other and practice their newly acquired skills.



Course Code: EDL148

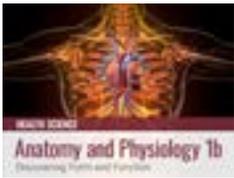
Anatomy and Physiology 1a: Introduction

Course Description

relationship between anatomy and physiology, students will then learn about cell structure and their processes. Learners will also discover the functions and purposes of the skeletal, muscular, nervous, and cardiovascular systems, as well as diseases that affect those systems. Focusing on terminology, this course is essential to students pursuing the health sciences or wanting to gain a greater sense of how the human body works.

Required Materials

- Art supplies: paper, writing tools, modeling clay, paint, Styrofoam, or a jelly mold (needed if student is not preparing their project in a digital version)
- Smartphone or camera for recording still images
- Smartphone or video camera
- Home blood pressure monitor, or blood pressure monitor at school nurse, drugstore, etc.



Course Code: EDL149

Anatomy and Physiology 1b: Discovering Form and Function

Course Description

Building on the prior prerequisite course, examine the form and function of even more body systems! You will learn about the structure, function, and interrelation between the lymphatic, immune, respiratory, digestive, urinary, and the endocrine systems. The reproductive system is also discussed along with hereditary traits and genetics. Finally, you will explore the importance of accurate patient documentation and privacy as well as technology used in the industry.

Required Materials

- Word processing program (e.g., Microsoft Word)
- Paper and pens for drawing a diagram (optional)
- Video recording device (if teacher is remote); optional pencil or other small, thin ‘prop.’
- Access to a variety of substances of various density and composition (for percussion); e.g. fruit, hollow surfaces, jugs/cartons with fluid in them, etc
- Choice between: slideshow creation software (e.g. PowerPoint); video recording; audio recording



Course Code: EDL084

Animation

Course Description

Do you wonder what it would be like to create the next blockbuster animated movie or do you want to make the next big video game? Do you have an eye for drawing, technology, and timing? If so, Animation is the course for you! You will learn how to use animation tools to conceptualize and bring your creations to life. You’ll learn the ins and outs of creating 2D and 3D animation, from start to finish. You’ll even begin working on our own design portfolio and get hands on experience with creating your own animation projects. Learning about Animation could lead to a thriving career in the growing world of technology and animation.

Required Materials

The following program will need to be downloaded for use during the course:

- Stop Motion Studio App

The following free, cross-platform programs will need to be downloaded for use during the course (programs will run on Windows XP and higher, Linux and Mac computers):

- GIMP (GNU Image Manipulation Program)
- Blender version **2.79b**
- Tupi 2D Magic
- DaVinci Resolve

Required Computer System Requirements:

- 2 GB of RAM
- 32-bit dual core
- 2Ghz CPU
- An OpenGL 2.1 compatible graphics card or chip

Recommended Items and Computer System

- Smartphone or tablet computer
- Computer with keyboard that includes number pad
- 64-bit quad core CPU
- 8 GB of RAM

Requirements:

- HD display
- Three-button mouse
- OpenGL 3.2 compatible graphics card with 2 GB of RAM

Additional Materials Required for Unit 1:

- Modeling clay (optional)
- Camera (can be an actual camera or a camera on a tablet or device)
- Scissors
- Stiff paper or cardboard
- Glue or tape
- Thumbtack or pushpin
- Mirror

Additional Materials:

- Paper, pencil or pens
- Magazines and/or newspapers



Course Code: EDL215

Business Information Management 1a: Introduction

Course Description

Students will build their career skills and strengthen their knowledge of business information management by exploring types of businesses and the elements of business planning. Learning about the initial requirements to start a business, students will then examine business finances, marketing, sales, and the importance of customer service. Computer hardware, networks, and the internet are discussed as well as the basics of web design. Lastly students will explore ethics and business law, giving each learner an opportunity to discover their passion for business!

Required Materials

- Sheets of plain paper, 8.5 x 11
- If students create mock-ups by hand, then paper will be required, but students may create mock-ups by hand, in Word, or some other electronic application.
- Chrome, Edge, or Firefox internet browser
- PDF reading capability
- If students choose to create folders and files in their own Dropbox account, then they will require login credentials, but the assignment can be completed in Windows Explorer.



Course Code: EDL087

Coding 1a: Introduction to Programming

Course Description

Have you ever wanted to create your own web page or wondered how your favorite websites were built? Maybe you want to know more about how computers and technology are affecting the world around us. In Coding 1a: Introduction to Programming, you will explore the role technology plays in our lives as well as study the fundamentals of computer science, review hardware and software, and learn how the internet functions. You will also discover how to create and build your own website using HTML and CSS and learn basic and complex commands and sequences as you become familiar with programming languages like JavaScript and Python Programming. This course also covers data collection methods, access rights, protocols, and security.

Required Materials

- Students will need to create a free account for the following sites: <https://www.pythonanywhere.com> and [/trello.com](https://trello.com)
- Students will use the following site to create flowcharts: <https://www.draw.io/>
- They can interact with these web sites through any typical web browser.



Course Code: EDL105

Coding 1b: Programming

Course Description

Cultivate your understanding of programming languages and expand on your knowledge of website development. Learn the difference between web development and web application development as well as further explore Advanced Python, HTML, and JavaScript. You will also examine software engineering concepts, learn more about security, privacy, and ethics in technology, and explore the wide variety of careers in computing.

Required Materials

- Students will need to create a free account for the following sites:
 - <https://www.pythonanywhere.com/>
 - <https://trinket.io/>
- Students will use the following site to create flowcharts: <https://www.draw.io/>
- They can interact with these web sites through any typical web browser.



Course Code: EDL100

Cosmetology 2: The Business of Skin and Nails

Course Description

Helping people put their best face forward is a growing, vibrant industry which needs skilled and personable professionals well-versed in the latest trends and technological advances. In Cosmetology 2: The Business of Skin and Nails, experience what the day-to-day life of a cosmetologist is like. You will discover that cosmetology is much more than knowing and applying techniques. Additionally, you will explore skin care and facials, learn how to give manicures and pedicures and how to apply artificial nails, and gain an understanding of different hair removal techniques. Discover the next steps towards launching a rewarding and creative career in cosmetology.

Required Materials for All Activities/Labs

- A computer with:
 - Internet access
 - A word processing program and a slide-show program
- A friend or family member to be your model
- A camera with:
 - Sound—a cell phone camera is fine
 - Video recording capabilities
- Trash can
- Trolley for products and tools
- Disposable Latex or Nitrile Gloves
- Clean sheets and towels
- Examples of work outfits – both appropriate and inappropriate
- Five beauty products of any kind from your own bathroom (to research their ingredients)
- Optional (for those doing labs/activities by hand):
 - Large butcher paper or poster board
 - Printer
 - Markers, colored pencils, crayons

Basic Manicure & Pedicure Materials (in addition to General Materials):

- A desk (technician table)
- Seating:
 - A technician chair
 - A client chair
 - Low to floor stool
 - Footrest or ottoman
- Tub large enough for feet
- Bowl
- Client Cushion or rolled towel
- Nail Brushes
- Nail Clippers
- Nail Nippers
- Toenail Clippers
- Toenail Nippers
- Nail Board
- Wooden Pusher
- Cotton balls or gauze
- Polish Remover
- Cuticle remover
- Massage lotion or oil
- Base Coat
- Colored Nail Polish (at least 2 different colors)
- Top Coat
- Disinfection container
- Disinfectant (or water to stand in for chemical)
- Cleaning brush

Nail Enhancement Materials (in addition to General Materials):

- Abrasive boards
- Buffer block
- Nail Dehydrator
- Nail Tip Adhesive
- Nail Tips
- Nail forms
- Tip Cutter
- Monomer/Polymer application brush
- Dappen dishes
- Nail primer
- Monomer liquid
- Polymer powder
- Adhesive-backed fabric
- Small piece of plastic
- Small scissors
- Tweezers
- Wrap Resin
- Wrap Resin Accelerator
- Cleansing solution
- Gel Brush
- Lint-free cleansing wipes
- Nail tips and resin
- Nail dehydrator
- UV or LED gel lamp
- UV or LED gel
- UV or LED gel polish
- UV or LED bonding gel or gel primer



Course Code: EDL100

Cosmetology 2: The Business of Skin and Nails

Required Materials Continued

Facial Materials (in addition to General Materials):

- A facial table (if you don't have one, have your client lie down on a bed or in a recliner)
- Magnifying lamp (or a flexible lamp and a magnifying glass)
- Headband, head covering, or towel with fastener
- Cotton pads
- Facial gown (you may substitute a large shirt or apron)
- Paper and Pencil
- Bowls
- Antiseptic lotion
- Cleansers and Makeup Removers
- Exfoliant
- Masks
- Toner
- Massage cream or lotion
- Moisturizers and/or sun-protective lotion
- Gauze
- Mask brush
- Paper towels
- Spatulas
- Sponges
- Tissues
- Facial steamer (optional)

Eyebrow Materials (in addition to General Materials):

- Roll of disposable paper
- Headband, head covering, or towel with fastener
- Cotton pads
- Eyebrow brush
- Wax heater
- Wax
- Wax remover
- Tweezers
- Fabric strips (if using soft wax)
- Soothing or antiseptic lotion
- Gentle cleanser and makeup remover
- Toner
- Spatulas or wooden applicators
- Eyebrow and lash tint or dye (if legal in your state)

Makeup Application Materials (in addition to General Materials):

- Makeup Cape
- Headband or hair clip
- Cotton pads, puffs, and swabs
- Sponges, Spatulas, and tissues
- Makeup Palette
- Disposable brushes for lip and mascara
- Eyelash curler and comb
- Assorted makeup brushes (for concealer, eye shadow, eyeliner, powder, brows, blush)
- Pencil Sharpener
- Cleansers
- Concealers
- Eye shadows
- Eyeliner
- Face powders
- Foundations
- Lip Colors
- Lip Liners
- Mascara
- Moisturizers
- Sunscreen
- Toner

Resume & Portfolio Materials (in addition to General Materials):

- Copies of your diplomas, certificates, and awards
- Photos from practice services you have performed
- Letters of reference or teacher recommendations



Course Code: EDL108

Cosmetology 3a: Introduction to Hair Skills

Course Description

Cosmetology is a specialized field with a high skill set. Students taking this course will be exposed to the complexities of cosmetology by learning to perform a hair, scalp, and skin analysis. Students will also learn about hair types, face shapes, and color theory. Finally, to effectively prepare students for a career in cosmetology, color techniques with an emphasis on salon and chemical safety is examined.

Required Materials

- Computer with internet capabilities, word processing program, slideshow presentation program
- Camera or phone with video recording capabilities
- Two friends or family member volunteers
- A sample release statement for client to sign
- Client chair
- Professional attire to wear in videos
- Cape for draping
- Ingredients to create a shampoo or conditioning treatment (will vary by student)
- Sink for washing and rinsing hair
- Towels
- Shampoo and conditioner
- Training mannequin head with hair
- Special effect hair coloring treatment
- Non-special effect hair color treatment
- Protective gloves



Course Code: EDL156

Cosmetology 3b: Waving, Coloring & Advancing Hair Skills

Course Description

Building on the prior prerequisite course, students will delve into the realm of hair styling and cutting techniques. Students will explore varieties wigs, extensions, and hairpieces, while also developing knowledge about shampooing and conditioning. Manual curling and the use of chemicals to curl and straighten hair are highlighted in this course as well as safety when working with chemicals. Students can expect to be well versed with a plethora of hair skills upon completion.

Required Materials

- Computer with internet capabilities, word processing program, slideshow presentation program
- Camera or phone with video recording capabilities
- Two friends or family member volunteers
- A sample release statement for client to sign
- Client chair
- Professional attire to wear in videos
- Cape for draping
- Ingredients to create a shampoo or conditioning treatment (will vary by student)
- Sink for washing and rinsing hair
- Towels
- Shampoo and conditioner
- Training mannequin head with hair
- Special effect hair coloring treatment
- Non-special effect hair color treatment
- Protective gloves



Course Code: EDL114

Culinary Arts 1a: Introduction

Course Description

Food, glorious food! It both nourishes and satisfies us, and it brings people together through preparation, enjoyment, and celebration. If you've ever wanted to learn more about cuisine and how your creativity and appreciation can be expressed by preparing food, Culinary Arts 1a: Introduction is perfect for you. Learn about the history and development of the food service industry, the basics of nutrition and different dietary needs, and laws and regulations governing food service. You will also develop fundamental culinary arts skills, including how to read and follow recipes, understand weight and measurements used in the food service industry, and how to be safe and sanitary in the kitchen.

Required Materials

- A digital camera or camera phone

Unit Three

- A medium-size skillet
- A flat spatula
- A gas or electric range
- 4 large flour tortillas
- 16 oz shredded cheddar cheese (2 cups)
- 1 cup sliced green chilies
- 1 Tbsp vegetable oil
- Sour cream and/or guacamole for toppings (optional)

Unit Four

- Kitchen mixer
- 7 egg whites
- 2 tsp vanilla
- $\frac{1}{4}$ tsp salt
- 1 tsp cream of tartar
- 14 Tbsp sugar
- Food thermometer

Unit Six

- Medium-size frying pan
- Tongs
- Spoon
- Paper towel
- Knife
- Gas or electric range
- 1 chicken breast and thigh with skin
- 6 Tbsp flour
- 1 tsp paprika
- 2 oz vegetable oil ($\frac{1}{4}$ cup)
- Salt and pepper to taste



Course Code: EDL115

Culinary Arts 1b: Exploring Careers in Culinary Arts

Course Description

Food is fundamental to life. Not only does it feed our bodies, but it's often the centerpiece for family gatherings and social functions with friends. Enhance your knowledge of the endless varieties of food, and explore what it takes to develop real talent as a chef. Through hands-on activities and in-depth study of the culinary arts field, Culinary Arts 1b: Exploring Careers in Culinary Arts will help you hone your cooking skills and give you the opportunity to explore the variety of careers available in the culinary arts industry. You will also learn the skills required to open, market, and manage a successful restaurant as you explore new technologies in food service.

Required Materials

- A digital camera or camera phone

Unit One

- Fresh shrimp (any quantity)
- Saucepan
- Gas or electric range

Unit Four

- Table or flat surface
- Large plate
- 1 small plate
- 2 glasses
- 2 spoons
- 2 forks
- 2 butter knives
- 1 napkin

Unit Five

- 1 medium-size frying pan
- 1 medium-size bowl
- 1-cup or 2-cup measuring cup
- Spatula
- 1 9x13 casserole dish
- Gas or electric range
- 8 slices of bread, cubed
- 2 cups milk
- 10 eggs
- 1 lb ground sausage
- 1 ½ cups shredded cheddar cheese
- Butter or cooking spray for greasing
casserole dish

Unit Six

- Kitchen mixer with flat beater attachment
- Rubber spatula
- Spoon
- Baking tray lined with parchment paper
- Cling film (i.e. plastic wrap)
- 6 oz brown sugar (¾ cup)
- 3.5 oz butter (7 Tbsp)
- 4 Tbsp molasses
- 1 egg
- 13 oz flour (about 1 ½ cups)
- 2 tsp baking soda
- ½ tsp ground cloves
- 1 tsp cinnamon
- ¼ tsp salt



Course Code: EDL096

Culinary Arts 2: Baking, Pastry, and More!

Course Description

Whether you aspire to be a world-class chef or just want to learn the skills needed to create your own dishes, Culinary Arts 2 will help you build a strong foundation and grow your knowledge of this exciting industry. In this course, you will explore baking and desserts, learn how to prepare proteins, and study nutrition and safety in the kitchen. You will also enhance your understanding of sustainability in the food industry, learn to prepare meals from a global perspective, and dissect the business of cooking, from managing a kitchen to successfully running a catering company. Discover the delights that await you on this delicious culinary adventure!

Required Materials

- Smartphone or other way to take videos/photographs
- Presentation software (Microsoft Powerpoint, etc.)
- Stove
- Oven
- Baking and roasting pans/sheets
- Pots and frying pans
- Measuring spoons, cups and jugs
- Metal mixing bowls
- Wooden spoon/rubber spatula
- Baking parchment
- Serving plates
- Cutlery
- Water
- Salt

Unit 1

- Any dry ingredient (flour, sugar, etc.)
- Any liquid ingredient (eggs, milks, etc.)
- Kitchen equipment for maintenance (e.g., mixer or blender) with owners manual if possible
- Cleaning materials (dish soap, sanitizer, cleaning sponge, clean cloth)

Unit 2

- Bread flour
- Leavening agents (including yeast)
- Butter or preferred oil
- Pre-prepared bread mix
- Bread pans

Unit 3

- Flour
- Sugar
- Sweet and savory pie fillings (fruit, meats, etc.)
- Butter and shortening
- Eggs
- Pie pan

Unit 4

- Flour
- Butter
- Sugar
- Eggs
- Cream
- Cake pan

Unit 5

- Freezer
- Chocolate
- Thermometer
- Double boiler
- Baking parchment
- Pastry bag with variety of tips
- Fruit
- Sugar
- Garnishing tool of choice

Unit 6

- Tools of choice for molecular gastronomy

Unit 7

- Writing, printing, and/or drawing materials for props and planning video
- Gluten free alternative ingredient

Unit 8

- Three fair trade ingredients

Unit 9

- Two proteins of choice (fish, beef, etc.)

Unit 10

- Ingredients from various cultures
- Large serving plate or dish
- Cutlery for serving
- Writing materials
- Printer access

Unit 11

- Materials or program for designing menus
- Writing materials
- Materials or program for presentation diagrams



Course Code: EDL098

Cybersecurity 1a: Foundations

Course Description

Ever wonder what it's like to be a hacker? Or think about who is trying to steal your passwords while you're shopping online using the free Wi-Fi at your local coffee shop? Can someone be watching your personal, private information? Can anything be kept "secret" online? We depend more and more on the technologies we interact with every day. This creates the need for increased system and network security measures. And, it means we all need to know more about how to protect valuable and vulnerable information. This course introduces you to the tools, technologies, and methods needed to protect online information and addresses how these issues are impacting safety and rights on a global and personal level. Learn what exciting career possibilities await you in the new and high-demand field of cybersecurity.

Required Materials

- Slide-show presentation program
- Word processing program

Software: Virtual Box: <https://www.virtualbox.org/wiki/downloads>

In order to run VirtualBox on your machine, you need:

- CPU: Recent Intel or AMD processor
- Memory: 2+GB RAM
- Hard disk: About 4GB free hard disk space
- Supported Operating System: Windows, Mac OS X, Linux, Solaris and OpenSolaris.

Other Materials

- USB memory stick
(Recommended to be at least 4 GB)

Optional Materials

(The following materials will only be needed if student chooses to do some activities/labs by hand.)

- Printer
- Blank paper (a variety of sizes)
- Markers, crayons, pens, pencils

Note: Your state's standards for this Cybersecurity course may require students to purchase and to install security equipment. Check with your school's administration to determine if this is necessary for course completion. This course provides alternate activities that could address these standards



Course Code: EDL099

Cybersecurity 1b: Defense Against Threats

Course Description

Ever wonder what it's like to be a hacker? Or think about who is trying to steal your passwords while you're shopping online using the free Wi-Fi at your local coffee shop? Unmask the cybersecurity threats around you by understanding hackers and identifying weaknesses in your online behavior. Learn to avoid the various types of cyber attacks, including those to your social media accounts, and to predict the potential legal consequences of sharing or accessing information that you do not have rights to. Dig into these crimes in depth by taking a look at cyber forensics and other cybersecurity careers. In a world where such threats have no boundaries, cybersecurity will undoubtedly play an increasingly larger role in our personal and professional lives in the years to come.

Required Materials

- Slide-show presentation program
- Word processing program

Software: Wireshark: <https://www.wireshark.org/#download>

In order to run Wireshark on your machine, you need:

- Hard disk: USB memory stick
(Recommended to be at least 4 GB)
- Memory: 2+GB RAM
- Supported Operating System:
Windows, Mac OS X

Software: Virtual Box: <https://www.virtualbox.org/wiki/downloads>

In order to run VirtualBox on your machine, you need:

- CPU: Recent Intel or AMD processor
- Memory: 2+GB RAM
- Hard disk: About 4GB free hard disk space
- Supported Operating System: Windows, Mac OS X, Linux, Solaris and OpenSolaris

Note: Your state's standards for this Cybersecurity course may require students to purchase and to install security equipment. Check with your school's administration to determine if this is necessary for course completion. This course provides alternate activities that could address these standards.

Other Materials

- USB memory stick
(Recommended to be at least 4 GB)

Optional Materials

(The following materials will only be needed if student chooses to do some activities/labs by hand.)

- Printer
- Blank paper (a variety of sizes)
- Markers, crayons, pens, pencils



Course Code: EDL237

Digital Media Fundamentals 1a: Introduction

Course Description

Discover your talent for building digital media applications using text, graphics, animations, sounds, videos, and more! Learn about the elements that make impressive media, such as typography, color theory, design, and manipulation. Explore careers to apply your digital media skills and find your place in this fast-paced and exciting field!

Physical Required Materials

- Computer with internet access
- Digital camera or smartphone
- Friends or family to serve as models in photoshoot
- Access to indoor and outdoor location for photoshoot
- Optional: tripod for camera/smartphone
- Optional: white bedsheet (for light diffuser)
- USB cable

Technical Required Materials

- Word processing software (Microsoft Word, Google Docs, etc.)
- Google Drive
- Google Slides
- Vecteezy account
- Powtoon account
- Canva account
- GIMP or Adobe Photoshop
- optional: iMovie or WeVideo
- optional: YouTube account



Course Code: EDL116

Digital Photography 1a: Introduction

Course Description

Have you ever wondered how professional photographers manage to take such sensational pictures? How are they able to find just the right way to capture an image or moment in time? Perhaps you've even wondered why your own pictures don't meet that standard. Digital Photography 1a: Introduction will answer these questions and help you understand more about the basics of photography. Learning about aperture, shutter speed, lighting, and composition is key for any serious photographer and will help you gain the confidence and knowledge you need to become one. You will not only follow photography through its history but also gain a basic understanding of camera functions, techniques and what it takes to shoot quality portraits, close-ups, action shots, and landscapes.

Required Materials

- Manual camera or digital camera with manual settings (the camera needs to allow for the mode, shutter speed, and aperture to be adjusted)
A Smartphone may be used for most required tasks, however, appropriate applications will need to be installed to allow the student to make the necessary adjustments to the camera mode, shutter speed, and aperture.
- Tripod (or necessary item(s) to create a stable foundation such as a table)
- Reflector (white paper, poster board, sheets, or a wall can also serve as a reflector)
- Image editing software
- Access to a slideshow application, such as PowerPoint



Course Code: EDL117

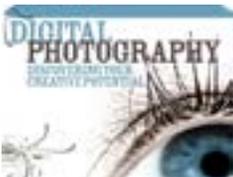
Digital Photography 1b: Creating Images with Impact!

Course Description

Do you want to go beyond the basics and take your photography skills to the next level? In Digital Photography 1b: Creating Images with Impact!, you'll learn the skills and techniques used by professional photographers to improve your photo taking skills of a wide array of subjects. Build on the composition techniques and camera functions you learned in Digital Photography 1a to build a portfolio of a variety of images. Learn the special techniques that will help you shoot quality portraits, action shots, and landscapes. You will also explore sports, pet, and wildlife photography and discover various career paths in the field.

Required Materials

- Manual camera or digital camera with manual settings (the camera needs to allow for the mode, shutter speed, and aperture to be adjusted)
A Smartphone may be used for most required tasks, however, appropriate applications will need to be installed to allow the student to make the necessary adjustments to the camera mode, shutter speed, and aperture.
- Tripod (or necessary item(s) to create a stable foundation such as a table)
- Reflector (white paper, poster board, sheets, or a wall can also serve as a reflector)
- Image editing software
- Access to a slideshow application, such as PowerPoint



Course Code: EDL017

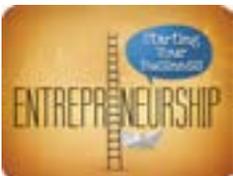
Digital Photography 2: Discovering Your Creative Potential

Course Description

In today's world, we are surrounded by images. We are continually seeing photographs as they appear in advertisements, on websites, in magazines, and on billboards; they even adorn our walls at home. While many of these images have been created by professional photographers, it is possible for your photos to take on a more professional look after you discover how to increase your creative potential. In Digital Photography 2: Discovering Your Creative Potential, you will examine various aspects of the field including specialty areas, ethics, and famous photographers throughout history. You will also learn how to effectively critique photographs so you can better understand composition and go on to create more eye-catching photographs on your own.

Required Materials

- Digital camera: "point and shoot" or above
A Smartphone may be used for most required tasks, however, appropriate applications will need to be installed to allow the student to make the necessary adjustments to the camera mode, shutter speed, and aperture.
- One frame (of your choice) to display a photograph on the wall
- 3M strip (or something similar)
- Image editing software capable of the following:
 - cropping
 - changing a photo to black and white
 - adjusting color and brightness
 - resizing images
 - applying filters and special effects like texture or glitter
 - creating layers



Course Code: EDL047

Entrepreneurship: Starting Your Business

Course Description

Do you dream of owning your own business? This course can give you a head start in learning about what you'll need to own and operate a successful business. Students will explore creating a business plan, financing a business, and pricing products and services.

Required Materials

- Students need a video camera or recording device for their projects.



Course Code: EDL033

Fashion and Interior Design

Course Description

Do you have a flair for fashion? Are you constantly looking for new ways to decorate or design your room? If so, Fashion and Interior Design is the course for you. Explore the world of design and begin to understand the background and knowledge needed to develop a career in this exciting field. Try your hand at designing through a project-based process, learning how color, composition, and texture can all affect great aesthetics. You'll develop the essential communications skills necessary to build a successful business and begin to develop the kind of portfolio that will lead to future career opportunities. Perhaps it's time to get your stylish foot in the door?

Required Materials

- Clothing items
- Sewing machine
- Digital camera
- Thread
- Fabric
- Clothing Patterns
- Measuring tape
- Sketchpad
- Paper
- Scissors



Course Code: EDL069

Forestry and Natural Resources

Course Description

Whether you are a treehugger or not, everyone loves the beauty and serenity of a healthy forest. Our precious woodland species not only supply us with aesthetic beauty but also play a valuable role in nature. Trees uphold a great deal of our wildlife's ecosystem while providing us humans with needed lumber, paper products, and even food. But these forests cannot protect themselves and depend greatly on humans for conservation. In Introduction to Forestry and Natural Resources, you will learn more about this meaningful relationship and how environmental policy, land use, water resources, and wildlife management all factor into current forestry issues. After better understanding these variables and how they affect the majesty of our forests, you may just be hugging these gentle giants after all.

Required Materials

- A digital camera or camera phone
- Approximately 1 cup of soil
- A clear glass jar with a lid
- Water to fill the jar
- A ruler or tape measure
- Marker or tape
- Supplies for an experiment of the student's choice
- Samples of water from three different water sources
- 3 clear glass containers with lid



Course Code: EDL089

Game Design 1a: Introduction

Course Description

Are you a gamer? Do you enjoy playing video games or coding? Does the idea of creating and designing your own virtual world excite you? If so, this is the course for you! Tap into your creative and technical skills as you learn about the many aspects involved with designing video games. You will learn about video game software and hardware, various gaming platforms, necessary technical skills, troubleshooting and internet safety techniques, and even the history of gaming. And to top it all off, you'll even have the opportunity to create your very own plan for a 2D video game! Turn your hobby into a potential career and go from simply being a player in a virtual world to actually creating one!

Required Materials

- Computer
 - internet access
 - slide show program
 - word processing program
 - Blender 2.79b
 - Gimp 2.10.10 (Unit 6)
 - Unity LTS Release 2017.4.0f1
 - OS: Windows 7 SP1+, 8, 10, 64-bit versions only; Mac OS X 10.9+. *Server versions of Windows & OS X are not tested.*
 - GPU: Graphics card with DX10 (shader model 4.0) capabilities.
- Timing device (smartphone, stopwatch, or kitchen timer)
- Photo and video equipment
 - May be a digital camera, a phone with a camera or a computer camera
- Several (10-20) pieces of blank paper
- Pencil and/or pen

Optional Materials

For students who prefer to complete activities/lab by hand:

- Poster board or butcher paper
- Markers, crayons, colored pencils
- A printer



Course Code: EDL104

Game Design 1b: Building a Game

Course Description

We live in a technologically-advanced world where virtual reality and video games play a major role. Have you ever thought about designing your own video game? By signing up for Game Design 1b: Building a Game, you will learn the skills needed to conceptualize, design, and fully create your very own video game. Explore various video game software and hardware, sharpen your coding skills, learn about game storylines, player progression, and algorithmic decision making. Learn to analyze player goals, actions, rewards, and challenges, among many other game play components. Utilize the 21st century skills of creativity, critical thinking, communication, collaboration, and technical expertise. When you sign up for Game Design 1b: Building a Game, you are putting yourself at the forefront of a future in technology!

Required Materials

- Software
 - Unity, same as previous course (Unity LTS Release 2017.4.0f1). Used throughout the course.
 - OS: Windows 7 SP1+, 8, 10, 64-bit versions only; Mac OS X 10.9+ Server versions of Windows and OS X are not tested
 - GPU: Graphics card with DX10 (shader model 4.0) capabilities
 - GIMP 2.10.2 (Unit 1)
 - Blender 2.79b (Unit 2)
 - Audacity 2.2.2 (Unit 6)
 - Jing (Unit 6)
<https://www.techsmith.com/jing-tool.html>
 - OpenShot v2.4.2 (Activity Unit 7)
- Physical devices
 - Video recording device with computer connectivity (Activity Unit 7)
 - Color Printer (Unit 8)
 - Browser-based software that may need a login
 - Vectr: <https://vectr.com/>



Course Code: EDL029

Health Science 1: The Whole Individual

Course Description

We know the world is filled with different health problems and finding effective solutions is one of our greatest challenges. How close are we to finding a cure for cancer? What's the best way to treat diabetes and asthma? How are such illnesses as meningitis and tuberculosis identified and diagnosed? Health Science 1: The Whole Individual provides the answers to these questions and more as it introduces you to such health science disciplines as toxicology, clinical medicine, and biotechnology. Understanding the value of diagnostics and research can lead to better identification and treatment of many diseases, and by learning all the pertinent information and terminology you can discover how this amazing field will contribute to the betterment human life in our future.

Required Materials

- A video camera / recording equipment
-



Course Code: EDL092

Health Science: Nursing

Course Description

Nursing is an in-demand career, perfect for someone looking for a rewarding and challenging vocation in the healthcare sector. With a strong focus on patient care, a nurse must be skilled in communication, promoting wellness, and understanding safety in the workplace. In Health Science: Nursing, you will explore communication and ethics, anatomy and physiology, and the practice of nursing. Learn how to build relationships with individuals, families, and communities and how to develop wellness strategies for your patients. From emergency to rehabilitative care to advances and challenges in the healthcare industry, discover how you can launch a fulfilling career providing care to others.

Required Materials

- Computer with word processing program like MS Word, Excel-type program, and slide show program like PowerPoint
- Computer with access to internet
- Brochure maker software (optional)
- Video Recording device: smart phone, digital camera with audio, computer camera, or any device that can record both video and sound.
- First aid kit and supplies:
 - Alcohol and cotton swabs or alcohol wipes
 - Syringe or object to mimic syringe (pencil)
 - Bandage materials: sterile gauze, tape, large bandages
 - Space blanket
 - Antiseptic cream/gel
 - Scissors
 - Cold pack
 - Surgical Gloves
 - Surgical Gown (or clothing that is similar)
 - Object like a piece of fruit to demonstrate asepsis
 - Clean towels or pieces of cloth
 - Thermometer
 - Bathroom scale
 - Yardstick or measuring tape
 - Stopwatch or watch with timer or second hand
 - Friend or family member to act as your “patient”
 - Practice dummy: a large pillow or stuffed animal is a good substitute
 - Automated External Defibrillator or a box with two strings attached; the strings will need adhesive bandages or tape on the ends



Course Code: EDL091

Health Science: Public Health

Course Description

What is public health? Who is in control of our health systems and who decides which diseases get funding and which do not? What are the human and environmental reasons for health inequality? Health Science: Public Health answers all of these questions and more. You will study both infectious and non-communicable diseases as well as learn how we conquer these on a community and global level through various methods, including proper hygiene, sanitation, and nutrition. Explore the role current and future technologies play worldwide as well as consider the ethics and governance of health on a global scale. Discover unique career opportunities, and fascinating real-life situations.

Required Materials

- Computer
 - with internet connection
 - with access to a word-processing program
 - with access to a slideshow presentation program
 - with the ability to do screen shots or use the Snipping Tool
 - with access to Dropbox
- Device with Photo- and Video-Recording Capabilities:
 - cell phone, digital camera, or computer camera
- Poster-Board or Large Butcher Paper
- Craft Materials:
 - markers, glue, pencils, pens, scissors (only necessary for those who choose to create handmade projects rather than digital when given the option; however, there is always a digital option for every lab/activity that involves creating a presentation)
- Toy Doll or Stuffed Animal for Demonstrations
- Watch, Digital Timer, or the Timer on a Cell Phone

Optional Materials

There are ways to complete the labs and activities without these materials (as explained in individual labs and activities); however, if it is possible to obtain these materials, they will be helpful:

- Human Volunteer
 - friend or family member
- Scale
 - to take a person's weight
- Measuring Tape
- Thermometer
 - to take a person's temperature
- Blood Pressure Cuff
- Printer with Paper and Black and White Ink (and Preferably Colored Ink)
- Protective Clothing: Gown, Mask, and Gloves



Course Code: EDL152

Health Science Foundations 1a: Introduction

Course Description

Introduce your students to the rewarding field of health science! Learners will acquire foundational knowledge required to pursue a career, such as the roles in the health care industry and the education, training, and credentials needed to attain them. Basic medical terminology, principles of anatomy and physiology, and legal and ethical responsibilities are also discussed. In addition, students will explore communication, teamwork, and leadership techniques – providing a solid basis for those wanting to advance through the health sciences.

Required Materials

- Computer with:
 - Internet access
 - Slideshow program (PowerPoint, Keynote, etc.)
 - Word Processing Program (Microsoft Word, etc.)
- Digital camera or camera phone with photo and video/audio capabilities
- Large piece of paper or poster board
- Markers, pencils, and other drawing/writing implements
- Drawing paper or magazines to cut up
- Glue or tape
- Scissors
- A volunteer (friend, family member, neighbor, etc.)



Course Code: EDL153

Health Science Foundations 1b: Professional Responsibilities

Course Description

Building on the prior prerequisite course, you will further develop your understanding of health science. Starting with safety, you will analyze your responsibilities for ensuring patient and personal safety with special attention paid to emergency procedures. Infection control, first-aid, CPR, and measuring vitals are discussed in detail. You will also learn about numerical data, such as systems of measurement, medical math, and reading and interpreting charts. Finally, examine effective team work and leadership characteristics while building your employment skills.

Required Materials

- Computer with:
 - Internet access
 - Word processing program
 - Slideshow program
- Printer or access to a printer
- Video recording device (camera phone or computer camera)
- Two family members or friends to volunteer in videos
- Soap, water, and a sink
- Hand sanitizer
- Basic cleaning supplies
- Standard growth chart from CDC or WHO
- Bathroom scale
- Measuring Tape
- Various household items to use as props to demonstrate infection control techniques (needles/sharps disposal)
- Long coat/shirt to act as a gown
- Professional attire (1 outfit)
- Gloves (single use latex or vinyl)
- Goggles
- Face mask



Course Code: EDL088

Hospitality and Tourism 2a: Restaurant and Hotel Management

Course Description

If you love working with people, a future in hospitality may be for you. In Part 1 of Hospitality and Tourism 2a: Hotel and Restaurant Management, you will learn about what makes the hotel and restaurant industries unique. Learn about large and small restaurants, boutique and resort hotels, and their day-to-day operations. Evaluate the environment for these businesses by examining their customers and their competition. As well, you will discover trends and technological advances that makes each industry exciting and innovative. In Part 1, you can explore a variety of interesting job options from Front Desk and Concierge services to Maître d and food service.

Required Materials

- Computer with:
 - Internet access
 - Slideshow program like Keynote or PowerPoint
 - Word processing program like Microsoft Word
- Video recording device
 - Digital camera, cell phone, or computer with video capabilities
- Audio recording device
 - Computer, cell phone app, or handheld voice recorder
- A friend or family member to assist with various activities/labs
- A real or fake telephone to use as a prop

Optional Materials

(only needed if student will not create labs/activities digitally)

- Craft materials:
 - Crayons, markers, colored pencils
 - Glue
 - Scissors
- Poster board or butcher paper
- Printer



Course Code: EDL111

Hospitality and Tourism 2b: Hotel and Restaurant Management

Course Description

Building upon the prior prerequisite course, students will embark on their journey to becoming managers in the hotel and restaurant industry by gaining knowledge and developing a variety of skills. Students will learn of different management styles, laws, and regulations that govern hotels and restaurants as well as how to develop job descriptions and business plans. In addition, students will learn how to create menus, advertise vacancies, perform interviews, and understand financials of the hotel or restaurant.

Required Materials

- Computer with internet access
- Slideshow presentation program (PowerPoint, Keynote, etc.)
- Word processing program (Microsoft Word, Text Editor, etc.)
- Notetaking materials such as a notebook or clipboard
- Pens and/or pencils
- Camera with photo and video recording capabilities
- Friend or family member volunteer
- Stuffed animal or doll (for CPR demonstration if friend/family member unavailable)
- Poster board and tri-fold board (if certain labs/activities are done by hand and not digitally)



Course Code: EDL093

Human and Social Services 1

Course Description

Those working in the field of social services are dedicated to strengthening the economic and social well-being of others and helping them lead safe and independent lives. In Human and Social Services 1, you will explore the process of helping, body, mind, and family wellness, and how you can become a caring social service professional. If you are interested in an emotionally fulfilling and rewarding career and making a difference in the lives of others, social and human services may be the right field for you.

Required Materials

- Computer with internet access and a word processing program
- Video recording device: smart phone, digital camera with audio, computer camera, or any other device that can record both video and sound

Optional Materials

- Drawing software
- Brochure maker software
- Multimedia-type programs
- Paper and drawing tools
- Digital scanner to scan hand-drawn images
- Donation box



Course Code: EDL095

Learning in a Digital World: Strategies for Success

Course Description

The digital world seems to change every day, and touch more of our lives. We use technology to communicate with friends and family, find never-ending entertainment options, follow our favorite sports teams and fashion trends, and do our school work. In Learning in a Digital World you will get the tools to navigate this exciting and always changing world. Learn about real-world issues and how to solve real-world problems through interactive and hands-on assignments. Discover what it means to be a responsible digital citizen, expand your digital literacy, and become a successful online student. Consider the best ways to find, create, and share information, learn to maximize information and communication technologies, and explore digital content creation, from emails and blogs to social media, videos, and podcasts.

Required Materials

- Digital camera – either camera phone, iPad, computer camera – as long as image can be recorded and uploaded to computer
- Paper and colored pencils if student chooses to hand draw certain activities



Course Code: EDL241

Medical Terminology 1a: Introduction

Course Description

Learning the language is essential for careers in health science. Join word parts to form medical terms, associations within body systems, and better communicate with colleagues and patients. Build your proficiency and confidence with this course and prepare yourself for a career in health sciences.

Required Materials

- Standard computer with:
 - Internet access
 - Word processing program
 - Slideshow program
- Video recording device (camera phone or computer camera)
- Medical Dictionary (printed or online)
- Standard sized paper
- Pencil or colored pencils



Course Code: EDL242

Medical Terminology 1b: Discovering Word Foundations

Course Description

Adding on the prior prerequisite course, discover the medical terminology associated with even more body systems to increase your ability to master prefixes, suffixes, and roots. Connect this language to real world patients and clinical settings through practical applications and specific scenarios. Launch your health knowledge with detailed medical terms!

Physical Required Materials

- Laptop or desktop computer
- Computer speakers
- Camera or video recorder
- Printer and printer paper

Technical Materials

- Slideshow software
- Word processing program
- Video editor



Course Code: EDL225

Middle School Career Exploration 1: Charting Your Path

Course Description

This course will break down the numerous and diverse occupations and help your students decide on a potential career path! Students will examine the principles of entrepreneurship as well as the economy and job market, before exploring career paths like business and finance, agriculture, engineering, technology, and many more! Education, certification, and training requirements will be provided for each career presented. By the end of this course, students will have completed individual assessments to determine their skills and interests and have developed a resume that they can build upon and use.

Required Materials

- Computer with:
- Word document program
- Slideshow program
- Pictures or images for slideshows
- Job Application Form for U8 (downloaded from internet)
- Camera with video recording
- Calculator
- Poster board for U3 Assessment Job Board
- Printed images for U3 Assessment Job Board
- Pencil



Course Code: EDL078

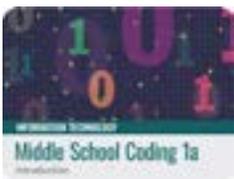
Middle School 2D Studio Art

Course Description

Close your eyes and imagine you're standing in an art studio—the smell of paint, the heat of the kiln, and the infinite creative possibilities that linger in the air. This is where art is born, and in 2D Studio Art, you'll learn how to bring your art visions to life. Whatever medium you prefer—painting, drawing, photography—this course will teach you the design elements and principles needed to create a work of art, explore your artistic inspirations, travel back in time to look at art in different cultures, and gain insight about the art of critiquing. If you've ever dreamed about making a living as an artist, this course will give you the tools and background that you need to turn those dreams into a reality!

Required Materials

- Various sizes of white drawing paper
- Various sizes of colored paper
- Paintbrushes in varying sizes
- Empty cans or jars to wash paintbrushes
- Ruler and/or protractor
- Erasers
- Scissors
- Miscellaneous household objects to use for still life art
- Digital camera, camera phone, or other type of camera
- Paint: (at least two or more of the following)
 - Tempera Paint
 - Watercolor
 - Oil Paint
 - Acrylic Paint
 - Ink Wash
- Drawing Tools: (at least two or more of the following)
 - Pastels
 - Markers
 - Crayons
 - Charcoal
 - Colored Pencil



Course Code: EDL102

Middle School Coding 1a: Introduction

Course Description

Do you find yourself wondering how your favorite apps, websites, and games were made? Maybe you want to try building your own. Well, now you can! In Middle School Coding 1a, you will learn all about the technology you use in your day-to-day life as well as explore how the internet functions. Get an introduction to the basics of computer science and discover how to create and build your very own website using HTML and CSS. You'll also become familiar with programming languages like JavaScript and Python Programming. You will leave the course with your very own portfolio of work that will showcase your skills and all that you've created.

Required Materials

- Laptop
- Internet

Websites Used

Unit 1

- Logo Interpreter (Login Optional; Free) – <http://www.logointerpreter.com/turtle-editor.php>.

Unit 2

- Typing Practice for Programmers (Sign in with Google or Demo; Free) – <https://typing.io>
- Obvibase (Sign in with Google, Facebook, or email; Free) – <https://www.obvibase.com/>.
- Newsela (Required for a lab question; Free) – <https://newsela.com>

Unit 3

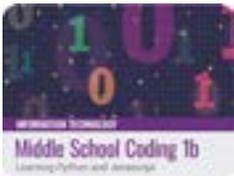
- Tynker (Free) – <https://www.tynker.com>

Unit 4

- Lucidchart (Sign in with Google or email; Free) – <https://www.lucidchart.com>

Unit 5

- Replit (Free) – <https://repl.it/> Must have an email address to create a free account



Course Code: EDL109

Middle School Coding 1b: Learning Python and Javascript

Course Description

We don't always think about the role technology plays in our world but the truth is technology influences our everyday lives and affects how we relate to our friends, family, and even complete strangers. For those wanting to develop a greater understanding of this technology comes Middle School Coding 1b. Building on what you learned in Middle School Coding 1a, you'll expand your knowledge of programming languages and web development and further explore Advanced Python, HTML, and JavaScript. You will also learn the difference between web development and web application development and continue to grow your portfolio, which will serve to highlight everything you have learned and created in the course.

Required Materials

Browser-based software that may need a login

- Repl.it: <https://repl.it/>



Course Code: EDL077

Middle School Digital Art and Design

Course Description

There are so many different types of art in this world—fine art, classical art, visual art—but the impact of digital art and design is all around us, often in ways that you probably aren't even aware of! After taking Digital Art and Design, you'll enjoy a deeper understanding and appreciation for all things digital as you explore this special genre of art found in everything from advertising to animation to photography and beyond. In this course, you'll learn about the evolution of art, the basic principles of art and design, and the role of art in politics and society. Additionally, you will actually create your own digital art and make it come alive. Give your creative side a boost with this Digital Art and Design course!

Required Materials

Unit 2

- Digital camera or cell phone with a camera feature (requires uploading digital photographs taken by student)

Unit 3

- Drawing paper and colored pencils or markers or drawing software (requires creating a logo)

Unit 5

- Drawing paper and colored pencils or markers or drawing software or animations software (requires creating a character that could be animated)

Unit 6

- A computer or phone with a recording feature/app (will need to record a "radio" commercial)



Course Code: EDL079

Middle School Exploring Music

Course Description

What comes to mind when you hear the word 'music'? Do you think about your favorite band or artist? Do you think about instruments and scales and chords? The word 'music' means something different to everyone. This is why in Exploring Music there is a little bit of something for everyone! You will learn about how we hear music and how music affects our lives. You will explore important elements of music like rhythm, pitch, and harmony, as well as different musical genres. You will discover more about your singing voice and musical instruments and composition while taking in the history and culture of music over the years. Tune up your understanding and appreciation for all things music by signing up for this course!

Required Materials

- Video recording device
- Audio recording device



Course Code: EDL080

Middle School Fitness

Course Description

Are you physically fit? What does being fit mean to you? Physical fitness is a lot more than just a number on a scale, and that's exactly what you'll learn in this course! Middle School Fitness helps you understand the basics of being physically fit and allows for a deeper understanding of your body's functions. You will learn about the complex science behind exercise and determine how you can test your current level of fitness. Explore what it means to be mindful and discover what inspires you. Improving your physical fitness is a smart choice to make at any age, and by signing up for this course, you will be taking the first step on your exciting journey to understanding and improving your physical fitness.

Required Materials

- Video recording device – either camera phone, iPad, computer camera – as long as video and sound can be recorded
- Paper and pencils if student chooses to hand draw certain labs rather than using slide-show presentation
- Free weights or a free-weight substitute like canned soup or milk jugs
- A ball for throwing
- A Frisbee
- Hockey stick, golf club, or baseball bat and matching ball
- Timer
- Distance tracker or distance tracking app
- Tennis racket, badminton racket, or ping-pong paddle
- Jump rope
- Volleyball or football
- A friend or family member to act as a partner



Course Code: EDL103

Middle School Game Design 1a: Introduction

Course Description

We all love to play video games – but have you ever wanted to build your own? If you are interested in a career in technology but also want a creative outlet, Game Design might be the field for you. Learn how to build a game from the ground up in Middle School Game Design 1, an interactive and hands-on course that will teach you all the ins and outs of making your own game. You will learn the importance of game structure and discover what makes a game fun, challenging, and interesting to players just like you. You will also have the opportunity to explore the design and creative process involved in game creation, learn block-based programs, and experiment with character and story development. As a bonus, you will leave the course with a digital portfolio of everything you created in class.

Required Materials

Scratch 3.0 Preview

- We are accessing Scratch 3.0 Preview Version in this course. Here are the minimum requirements from the Scratch 3.0 FAQ page (<https://scratch.mit.edu/preview-faq>):
- Scratch 3.0 is built on industry-standard HTML5 technology and is no longer dependent on Flash. Because of this, it runs in any modern web browser.

Desktop

- Chrome (63+)
- Edge (15+)
- Firefox (57+)
- Safari (11+)
- Internet Explorer will NOT be supported.

Tablet

- Mobile Chrome (62+)
- Mobile Safari (11+)

Frequently Asked Questions

Will Scratch 3.0 work on tablets and phones?

- Scratch 3.0 will work on desktop, laptop, and tablet devices (iOS 11+ and Android 6+). On tablets, there won't be a way to use "key pressed" blocks or right-click context menus until next year.
- You will be able to view projects on mobile phones, but you won't be able to create or edit projects on phones.

Will Internet Explorer be supported?

- No. We encourage Scratch 2.0 users using Internet Explorer to upgrade their browsers in advance of the Scratch 3.0 official launch.
- WebGL is a browser technology that is used by Scratch 3.0 to render projects to the stage. While WebGL is supported in all modern browsers, some older computers and operating systems can not support it. For users that can not run WebGL we recommend using the Scratch 2.0 Offline Editor.
- What is WebGL and why do I need it to run Scratch 3.0?

Please Note: In this course, students will be designing their games in Scratch. The current version of Scratch 2.0 is Flash-based, but a new version is coming out later this year. Scratch offers a preview mode of their 3.0 version. We have tailored our instructions toward the Scratch 3.0 preview mode, found here: <https://preview.scratch.mit.edu/>. We will update our instructions once Scratch 3.0 is officially launched.



Course Code: EDL110

Middle School Game Design 1b: Creating a Game

Course Description

Building upon the prior prerequisite course, students will further advance their knowledge of game design by taking this course. Delving into the development process, students will create details and add component pieces to a game while learning to prototype, troubleshoot, and test. Additionally, exploring how to critique a game and advertise it will strengthen the student's ability to create a fully functioning game from start to finish.

Required Materials

- Art supplies: paper, markers, scissors, glue, popsicle sticks
- Video recording device



Course Code: EDL031

Middle School Photography: Drawing with Light

Course Description

Photographs play an important role in our world today. We photograph to preserve memories, document events, and create artistic works. This course introduces students to the basics of photography, including camera functions and photo composition. Students will learn what it takes to create a good photograph and how to improve photographs of animals, people, and vacations. They will also begin working with their photographs using photo-editing software. Through a variety of assigned projects, students will engage their creativity by photographing a range of subjects and learning to see the world through the lens of their cameras.

Required Materials

- Digital camera: "point and shoot" or above
A Smartphone may be used for most required tasks, however, appropriate applications will need to be installed to allow the student to make the necessary adjustments to the camera mode, shutter speed, and aperture.
- Camera cord to transfer images to the computer
- Image Editing Software
- Paper and Pen/Pencil for note taking
- Lighting tools for side, front, and back lighting



Course Code: EDL229

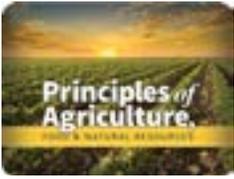
PowerPoint

Course Description

Learn to create clean and professional presentations while also building your skills as a speaker, leader, and marketer! Create and format presentations while inserting multimedia, images, transitions, and animations to make a dynamic final product! Content of this course will also be applicable to the Microsoft Office Suite certification exam.

Required Materials

- Microsoft Office 2019 (or Office 365 subscription)
- Audio recording device
- Audio and Video recording capabilities for computing device that runs PowerPoint (student will record themselves giving a presentation)



Course Code: EDL070

Principles of Agriculture, Food and Natural Resources

Course Description

Did you know that the world's population could be as high as 11 billion people by the year 2050? And certainly, as our population is growing, so too are our food needs. Even today, millions of people around the world experience hunger. How can we balance growing populations and keeping everyone fed? This is where the importance of agriculture, food, and natural resources comes in! Through the study of Principles of Agriculture: Food and Natural Resources, you will gain a stronger sense of how food ends up on the plate and how we can maximize the foods and natural resources the earth provides. You'll learn more about agriculture's history, animal husbandry, plant science, and natural resources, and you'll be better prepared for your part in sustaining the world.

Required Materials

- A digital camera or camera phone
- Supplies for an experiment of the student's choice



Course Code: EDL223

Principles of Business, Marketing, and Finance 1a: Introduction

Course Description

Provide students with fundamental knowledge that will help them pursue a career in business! Students will explore different types of businesses and ownership forms, the impact of governments on business, and the marketing of goods and services. Students will also be expected to learn about globalization, free trade, and various economic systems. Finally, the impact of technology on business, business ethics, and social responsibility are discussed, providing students with a foundational knowledge of business.

Required Materials

- Computer with:
 - internet access
 - word processing program
 - slideshow program
- Video recording device (camera phone or computer camera)



Course Code: EDL150

Principles of Information Technology 1a: Introduction

Course Description

Develop your students' understanding and proficiency of computers! Students will learn about computer hardware, Von Neumann architecture, peripherals, and maintenance as well as data management and storage options. Learners will trace the history of operating systems and application software while also exploring network systems, administration, and troubleshooting. Finally, students will dive into word processing, spreadsheets, and databases to cement their knowledge of information technology!

Required Materials

Hardware:

- A computer with Internet access
- A video camera or a smartphone with video capability

Other:

- A working Google account: This course is using Google Chrome browser 71.0.3578.98 in screenshots and demos.

Software:

- A word processing program such as Microsoft Word
- A spreadsheet program such as Microsoft Excel
- A database program such as Microsoft Access or Obvibase

Note for Teachers: Unit 6 Activity requires the use of Microsoft Access in order to work with forms and queries. Access is only available for Windows at this time. Teachers are alerted that they may need to come up with an alternative project for that activity, if students do not have Access.



Course Code: EDL107

Reading and Writing for Purpose

Course Description

This course introduces useful, real-world information by having students learn to read legal, insurance, employment, and vehicle related documents. Furthermore, students will explore media bias, trends in journalism, word structures, and research strategies. To entrench real-world applications, students will learn how to critically read, identify good sources of information, and create an outline, making this course an asset to building life and study skills.

Required Materials

- Computer with internet access
- Slideshow presentation program (PowerPoint, Keynote, etc.)
- Word processing program (Microsoft Word, Text Editor, etc.)
- Camera with photo and audio/video recording capabilities

For students that will be editing and revising their work on paper and creating some of the assigned illustrations by hand (there is always the option to create these digitally), they will need:

- Printer
- Highlighters
- Paper
- Crayons/Markers/Colored Pencils
- Pencils/Pens



Course Code: EDL061

Restaurant Management

Course Description

Have you ever dreamed of running your own eatery? Maybe you've thought of collaborating with a famous chef to create an unforgettable dining experience? What goes on behind the restaurant dining room is a very different world than what goes on out front and really determines the success or failure of an establishment. Restaurant Management will show you exactly what's needed to run a successful restaurant, including ordering supplies, hiring quality workers, maintaining inventory, and managing a large staff. Understanding such concepts as food safety, hygiene, customer relations, marketing, and using a point-of-sale system are crucial to being an effective restaurateur. Whether you are hoping to operate a casual sit-down eatery, oversee a fine dining establishment, or buy a food franchise, this course is the perfect first step.

Required Materials

- A digital camera or camera phone
- Ingredients and tools to make a simple food dish of the student's choice
- Stove/grill/oven/microwave



Course Code: EDL040

Theater, Cinema and Film Production

Course Description

Lights! Camera! Action! Let's explore the enchanting world of live theater and its fascinating relationship to the silver screen. In Theater, Cinema, and Film Production, you'll learn the basics of lighting, sound, wardrobe, and camerawork while examining the magic that happens behind all the drama. Delve into the glamorous history of film and theater, and examine the tremendous influence these industries have had on society and culture over the years. During this unit, you'll discuss and analyze three classic American films—Casablanca, Singin' in the Rain, and The Wizard of Oz—to help you learn how to critique and appreciate some of the most famous dramas of all time.

Required Materials

You will be required to have access to the standard editions of the three films used in this course:

- Singin' in the Rain (1952)
- Casablanca (1942)
- Wizard of Oz (1932)

If you do not already have access to these movies, you may consider other sources such as your local library.

Note: Timestamps referenced throughout the course apply to standard editions of the applicable film and may not align with any extended/modified versions.



Course Code: EDL050

The Lord of the Rings: An Exploration of the Films and Its Literary Influences

Course Description

Hobbits, Orcs, wizards, dashing knights, and powerful elves are all part of the magic created in J.R.R. Tolkien's famously epic tale, *The Lord of the Rings*. For years, the vivid characters within this beloved story could exist only in the readers' minds—until it was adapted into a movie that allowed fans to finally see, through the eyes of Hollywood magic and brilliant technology, the manifestation of these characters onscreen. What does it take to transport these well-known images like Gollum and the Shire from dusty pages to the giant screen? In *The Lord of the Rings: An Exploration of the Films and Its Literary Influences*, you will see first-hand how classic literature can become modern film and bring the fantasy alive for a whole new generation of believers.

Required Materials

You will be required to have access to the standard (non-extended) editions of the three *Lord of the Rings* films:

- *The Lord of the Rings: The Fellowship of the Ring*
- *The Lord of the Rings: The Two Towers*
- *The Lord of the Rings: The Return of the King*

If you do not already have access to these movies, you may consider other sources such as your local library.

Note: Timestamps referenced throughout the course apply to standard editions of the applicable film and may not align with any extended/modified versions.



Word
Official Fundamentals Series

Course Code: EDL230

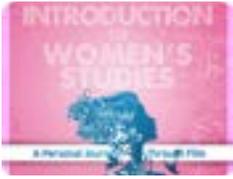
Word

Course Description

Learn to effectively and efficiently use one of the most common tools of business, school, and personal correspondence – Microsoft Word! You will learn not only how to create word-processing documents like letters and reports, but how to style them using fonts, colors and editing tools. Discover how to format documents, create tables, use bullets and numbering, and insert images. Skills you learn in this course can be applied immediately to school and prepares you to take the MOS Word certification exam. Content of this course will also be applicable to the Microsoft Office Suite certification exam.

Required Materials

- Microsoft Office Word 2019, or an Office 365 Subscription
- The student will create an account with some file or web hosting site (Dropbox, GoogleDocs, Wix, etc.) to create an E-portfolio as a capstone project for the course.



Course Code: EDL051

Women's Studies: A Personal Journey Through Film

Course Description

Maybe you grew up watching movies with female characters like Cinderella, Belle, Snow White, or Ariel. Maybe you've wondered why there are stereotypes about women being bad drivers or ignorant about sports. Maybe you want to know about feminism and the women's movement. Women's Studies: A Personal Journey Through Film can help you answer these questions. Though it focuses on the experience of women, it's appropriate for anyone who wants to learn to critically examine films while learning about the history of the women's movement and how gender, race, and social class influence us. Women have earned their right to stand up and be recognized as equal partners and reap the benefits of their hard work. As the anonymous quote goes, "History is Herstory too."

Required Materials

You will be required to have access to the standard editions of the films used in this course:

- Mona Lisa Smile (2003)
- Fried Green Tomatoes (1991)
- Far From Heaven (2002)
- Snow White and the Seven Dwarves (Disney Animation – 1937)
- Beauty and the Beast (Disney Animation – 1991)
- Mean Girls (2004)
- The Help (2011)
- A League of Their Own (1992)

If you do not already have access to these movies, you may consider other sources such as your local library.

