

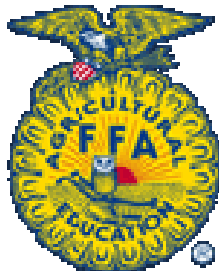
CAREER AND TECHNICAL STUDENT ORGANIZATIONS



DECA— An international association of high school and college students studying marketing, management, and entrepreneurship in business, finance, hospitality, and marketing sales and service. For more information, contact Marc Hillestad, Adviser at hillesta@riverview.wednet.edu or 425.844.4854.

FBLA (Future Business Leaders of America) —

The largest and oldest premier business education student organization in the world preparing students for careers in business and technology. Over a quarter of a million high school and middle school students, college and university students, faculty, educators, administrators, and business professionals belong to FBLA-PBL (Phi Beta Lambda). For more information, contact Donna Bielstein, Adviser, at bielsteind@riverview.wednet.edu or 425.844.4855.



FFA — The national FFA organization is dedicated to making a positive difference in the lives of students by developing their potential for premier leadership, personal growth, and career success through agriculture education. For more information, contact Sarah Thomas at thomassa@riverview.wednet.edu or 425.844.4877.

SkillsUSA — SkillsUSA is a partnership of students, teachers, and industry working together to ensure America has a skilled workforce. SkillsUSA serves more than 280,000 members, 13,000 chapters, in the United States and its territories. For more information, contact Tim Kennedy at 425.844.4822 or kennedyt@riverview.wednet.edu.



WVSMA — Washington Vocational Sports Medicine Association is a student, educator, and athletic trainer organization dedicated to ensuring quality athletic medicine/health care at the secondary school level, provided by an allied health care professional (National Certified Athletic Trainer). For more information, contact Wendy Nygaard at nygaardw@riverview.wednet.edu or at 425.844.4872.

CEDARCREST HIGH SCHOOL

CAREER AND TECHNICAL EDUCATION Catalog 2008-09 and College Credit Opportunities



AGRICULTURE SCIENCE

AGR132 AGRICULTURE POWER – SMALL ENGINES

(0.5 CREDIT, 1 SEMESTER) OPEN TO ALL STUDENTS

Students will study the process of operation, ignition, carburetion, and lubrication of the internal combustion single cylinder 2-cycle and 4-cycle engine. Students will also study tools and equipment that are used to perform simple repair and to overhaul a small engine. Students will also develop skills to identify problems through a systematic troubleshooting process. Students will disassemble and assemble a single-cylinder 4-cycle engine. FFA leadership component.

AGR133 AGRICULTURE POWER – ELECTRICITY

(0.5 CREDIT, 1 SEMESTER) OPEN TO ALL STUDENTS

Electrical theory is explored and practical application of this energy source is applied to lab exercises. Students will learn series and parallel circuit operation, design simple electrical home/agricultural building wiring circuits. Students will perform lab exercises relating to house/ agricultural building wiring and electrical controls. The student will learn how to properly use tools, equipment and materials specific to electricians. FFA leadership component.

AGR234 BEGINNING TO INTERMEDIATE AGRICULTURE METALS/ WOODS TECHNOLOGY

(0.5 CREDIT, 1 SEMESTER) OPEN TO ALL STUDENTS

This class is an introduction to agriculture woodworking, construction processes and procedures. Additional areas of study may include, but are not limited to, cabinetry, joinery, furniture construction and carpentry. Students will work independently and as team members in a simulated industrial environment. Systematic, orderly and purposeful use of time, student leadership and safety are strongly emphasized. FFA leadership component. Repeatable (up to 2 semesters) for credit.

AGR431 ADVANCED AGRICULTURE METALS AND WOODS

(0.5 CREDIT, 1 SEMESTER) PREREQUISITE: BEGINNING METALS AND WOODS

This one semester class will be for students who have taken 2 semesters of Beginning Agriculture Metals and Woods. The students will continue to develop metalworking and woodworking skills that are required to enter related industries. The student will work independently and as team members in a simulated industrial environment. FFA leadership component. The student will also be required to complete 6 projects.

AGR227 FLORICULTURE I

(0.5 CREDIT, 1 SEMESTER) THIS COURSE SATISFIES A FINE ARTS OR OCCUPATIONAL CREDIT.



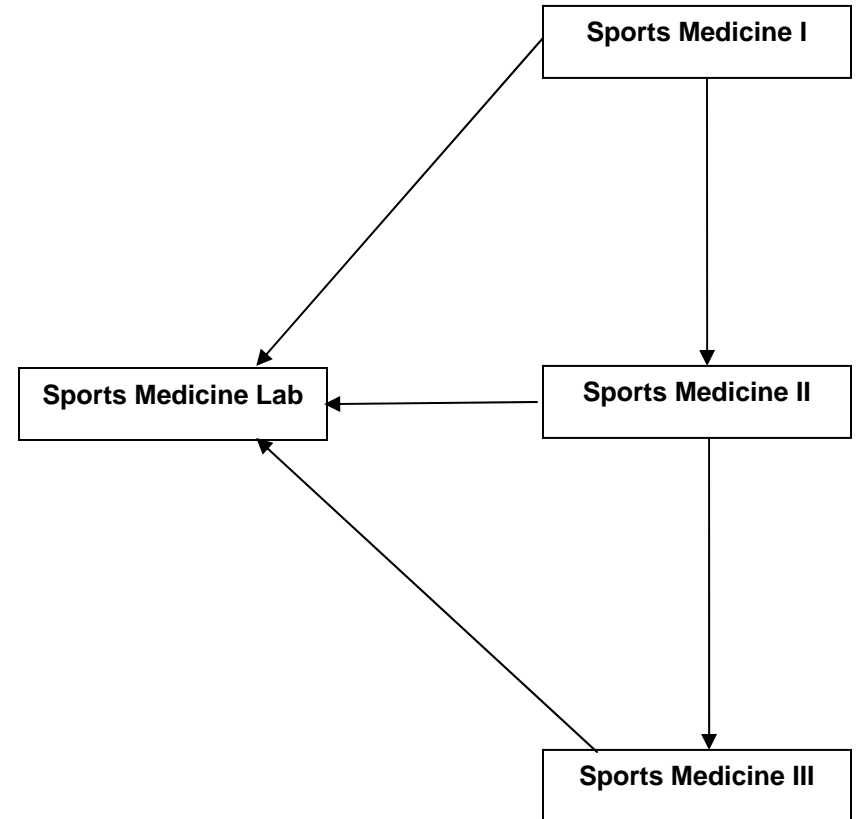
This introductory course includes careers in horticulture, history, principles of design and the conditioning of cut flowers. Emphasis is given to hands-on activities that revolve around holidays each semester. Sales and marketing of Christmas wreaths and centerpieces is part of this class. Plant Identification will be part of the class. Corsages and boutonnières, mechanics and bow making are covered in this class.

AGR232 FLORICULTURE II

(0.5 CREDIT, 1 SEMESTER) PREREQUISITE: FLORICULTURE I OR INSTRUCTOR'S PERMISSION. THIS COURSE SATISFIES A FINE ARTS, OCCUPATIONAL OR ELECTIVE CREDIT.

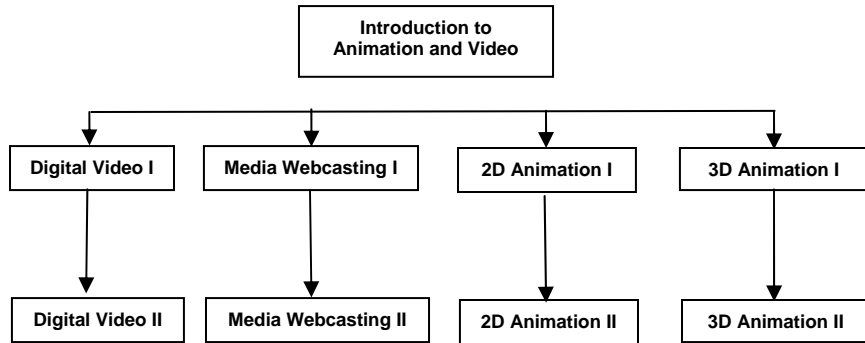
This is a continuation of Floriculture I. It includes arrangements, potted plants, pricing and selling in the floral shop. Plant identification is included in this class. Students will participate in the winter bulb sale and the spring plant sale.

SPORTS MEDICINE COURSE SEQUENCE

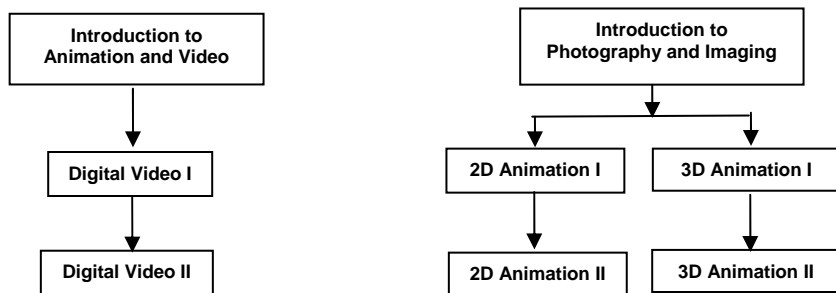


MEDIA ARTS COURSE SEQUENCE

“AM” Media Offerings



“PM” Media Offerings



AGRICULTURE SCIENCE

AGR 233 ADVANCED FLORICULTURE

(0.5 CREDIT, 1 SEMESTER) PREREQUISITE: SUCCESSFUL COMPLETION OF FLORICULTURE I OR FLORICULTURE II OR INSTRUCTOR'S PERMISSION.

The advanced class of Floriculture will review skills learned in Floriculture I and II with an emphasis on improved skill development. Projects will be determined by semester in which this class is offered. Wedding flowers, balloon arrangements and other specialty-type arrangements will be covered in this class. Plant ID will also be included. This class will probably be offered in alternating years.



AGR225 HORTICULTURE I

(0.5 CREDIT, 1 SEMESTER) THIS COURSE SATISFIES AN OCCUPATIONAL CREDIT.

This introductory course includes plant taxonomy, plants and their function, the environment, chemicals and asexual propagation. Students will have use of the school greenhouse for lab projects. Plant identification is a key component of this class. Students will also do a floral design project. Sales and marketing of greenhouse projects is an activity of this class. (A \$20.00 fee is required of all students)

AGR230 HORTICULTURE II

(0.5 CREDIT, 1 SEMESTER) PREREQUISITE: SUCCESSFUL COMPLETION OF HORTICULTURE I. THIS COURSE SATISFIES AN OCCUPATIONAL CREDIT.

The second semester of this introductory course includes growing plants from seed, insect control, using plants in the landscape and pruning. Students will grow plants in the school greenhouse and do a sales and marketing project with the spring plant sale. (A \$20.00 fee is required of all students).

AGR235 ADVANCED HORTICULTURE

(0.5 CREDIT, 1 SEMESTER) PREREQUISITE: SUCCESSFUL COMPLETION OF HORTICULTURE I OR II OR INSTRUCTOR'S PERMISSION.

Landscaping is the major focus of this advanced class. Students will do a home landscape design with emphasis on nursery plant identification. Landscape maintenance will also be covered that includes lawns, pruning, fertilizing. A school landscape project will be included in this class. This class will probably be offered in alternating years. (A \$20.00 fee is required of all students).

AGR228 TURF AND TURFGRASS MANAGEMENT I

(0.5 CREDIT, 1 SEMESTER) PREREQUISITE: SUCCESSFUL COMPLETION OF SCI107 (PHYSICAL SCIENCE).

This one semester class will introduce students to the Turf and Turfgrass industry. Our principal focus will be to develop skills required to work in the golf course and turf maintenance industry. Students will be applying what they learn in the classroom to actual situations found on a golf course and or local turf fields. This class will help maintain the Cedarcrest High School sports field. FFA leadership component.



AGR236 TURF AND TURFGRASS MANAGEMENT II

(0.5 CREDIT CLASS, 1 SEMESTER) PREREQUISITE: SUCCESSFUL COMPLETION OF AGR228

This one semester class will introduce students to the turfgrass industry. Our principal focus will be to develop skills required to work in the golf course or field maintenance industry. Students will be applying what they learn in the classroom to actual situations found on a golf course and or local turf fields. This class will spend time at a golf course and work with fairways, greens, roughs and tee boxes. FFA leadership component.

BUSINESS EDUCATION

BUS151 DIGITAL COMMUNICATION TOOLS

(0.5 CREDIT, 1 SEMESTER)

This course will teach students how to use the computer as a business tool. Students begin with a review of basic keyboarding skills. Major units of study include word processing training (letters, memos, reports, resumes), presentation software (PowerPoint), spreadsheets, and web design skills (elements of basic design, linking pages, HTML code and more). Emphasis will be placed on career exploration.

College
Credits

BUS247 INTRODUCTION TO BUSINESS

(0.5 CREDIT, 1 SEMESTER) PREREQUISITE: NONE

This course focuses on the general study of business. Students will learn about the processes of interchanging goods and services (buying, selling and producing), business organization, and accounting. In addition, students will learn basic elements necessary to binding contracts for buying and selling goods. Students will learn how different types of businesses market their products to consumers, and what customer services are needed to build a satisfied customer base. This is an entry-level business course.

College
Credits

BUS210 WEB PUBLISHING BASICS

(0.5 CREDIT, 1 SEMESTER) PREREQUISITE: SUCCESSFUL COMPLETION OF DIGITAL COMMUNICATION TOOLS.

In this class students will learn basic mechanics of building WEB pages using HTML code. Early pages will be developed with Microsoft Front Page. Later in the term, projects will be authored completely in HTML code. Students will also be exposed to Java and FLASH coding. A major group project will be to build and maintain the school WEB site with all of its linking pages.

College
Credits

BUS212 WEB PUBLISHING WITH DREAMWEAVER

(0.5 CREDIT, 1 SEMESTER) PREREQUISITE: WEB PUBLISHING BASICS RECOMMENDED, BUT NOT REQUIRED.

The curriculum for this class teaches Macromedia professional web-authoring tools focusing on Dreamweaver. Class projects will follow the web design process, from project planning to presentation, to redesign, to completion and final evaluation. One of the projects for this class will be to continue the development of CHS/Toll Yearbook pages on our CHS web site.

College
Credits

BUS205 MICROSOFT OFFICE APPLICATIONS

(0.5 CREDIT, 1 SEMESTER) PREREQUISITE: SUCCESSFUL COMPLETION OF DIGITAL COMMUNICATION TOOLS.

This course will provide students with advanced Microsoft Office Specialist (MOS) software training used in industry today. Students will demonstrate their knowledge, skills and understanding of many on-the-job-like tasks and responsibilities in Word, Excel, PowerPoint, Access, and Outlook, and will receive training in the use of voice recognition technology. Students will be eligible to receive MOS certification.

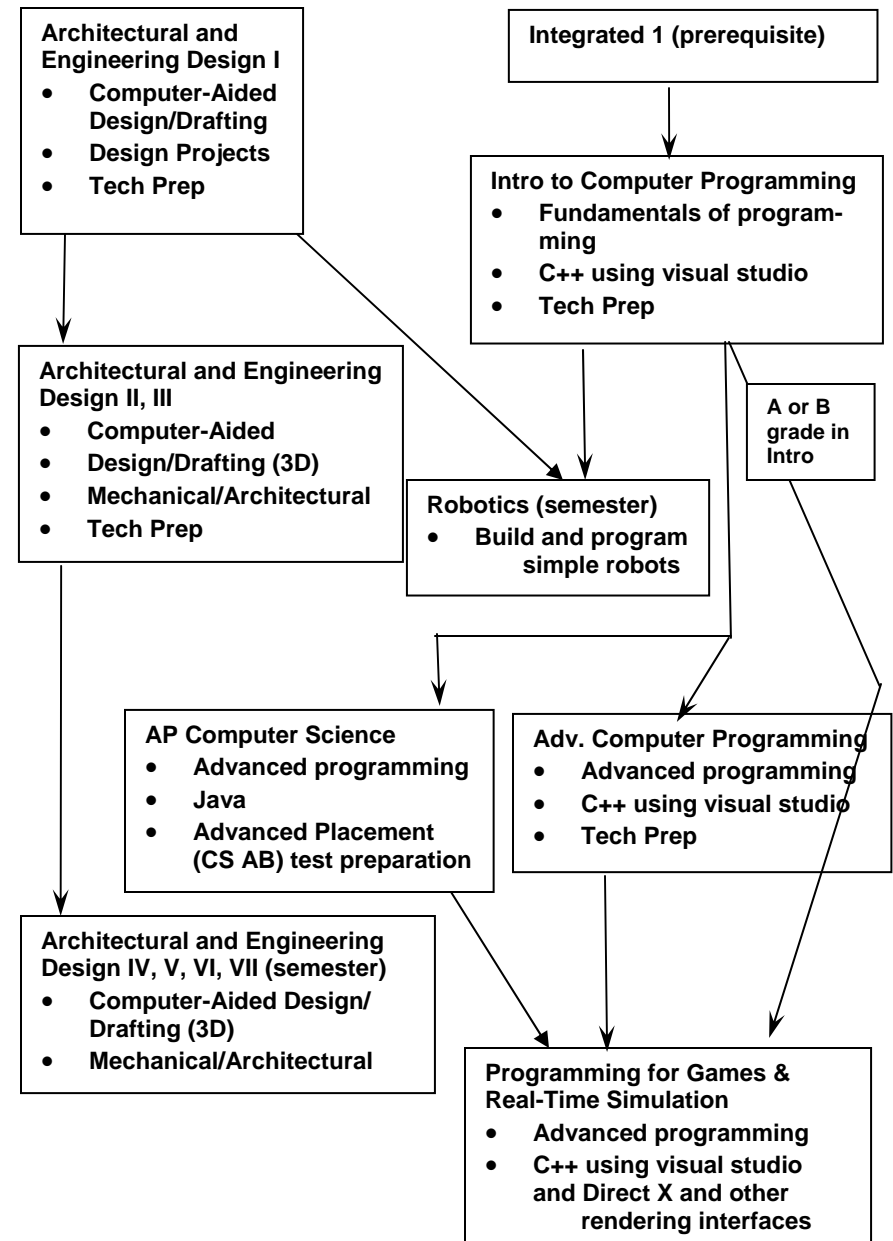
College
Credits

BUS248 BUSINESS ENGLISH

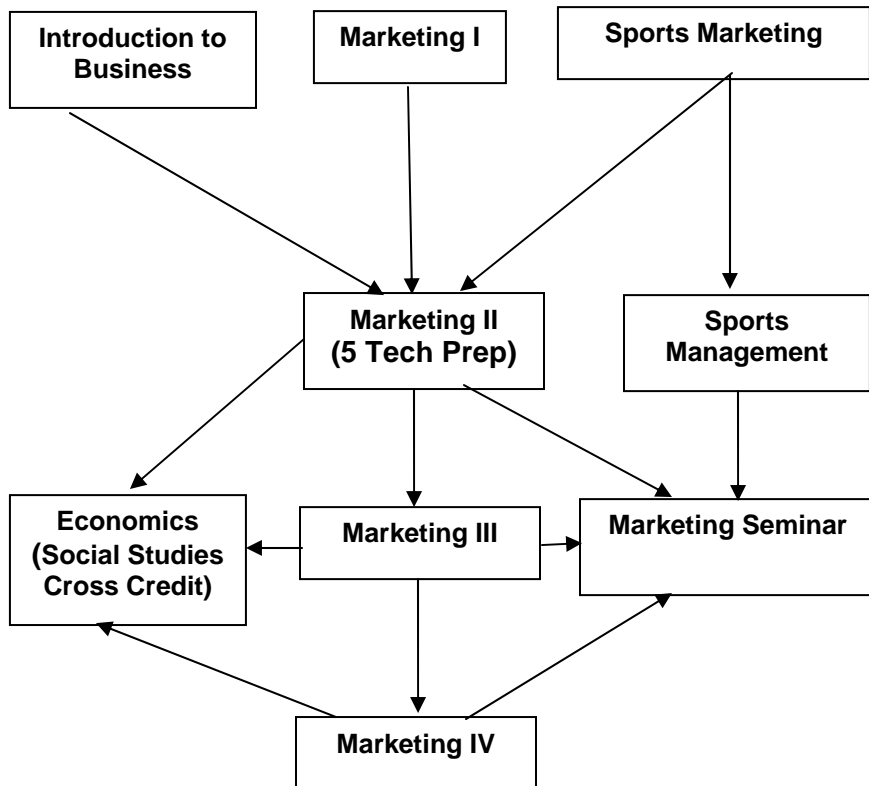
(.5 CREDIT, 1 SEMESTER) PREREQUISITE: SUCCESSFUL COMPLETION OF DIGITAL COMMUNICATION TOOLS AND SOPHOMORE ENGLISH.

This course emphasizes applied business skills through professional communication (writing, listening, reading and speaking,) problem solving, goal setting, conflict resolution and team building. The course will also cover oral communication in the office, interviewing and oral presentation. The goal of this class is to prepare students for the business world they enter after high school.

ARCHITECTURAL ENGINEERING DESIGN AND COMPUTER SCIENCE COURSE SEQUENCE



MARKETING COURSE SEQUENCE



BUSINESS EDUCATION

BUS301 LAW AND BUSINESS ETHICS

(0.5 CREDIT, 1 SEMESTER) OPEN TO 10TH-12TH GRADES. SOCIAL STUDIES ELECTIVE OR OCCUPATIONAL CREDIT

This course is designed to teach basic understanding of the law as it applies to society in general, to the individual citizen, and to minors. This course will cover the legal aspect of many situations common to everyday society such as civil law, criminal law, and basic contract law and business ethics. There will be a field trip to a courthouse and to the prison.

BUS351 ACCOUNTING

(1.0 CREDIT, 2 SEMESTERS, 0.5 CREDIT PER SEMESTER) OPEN TO 11TH AND 12TH GRADES.



The language of business. Students will learn how to keep financial records. They will learn journalizing, posting, completing work sheets, preparing financial reports, and calculating depreciation. Students will be exposed to computerized accounting. In addition to work out of the text, students will complete simulated business projects.

BUS364 ENTREPRENEURSHIP

(0.5 CREDIT, 1 SEMESTER) PREREQUISITE: MARKETING I AND II OR INTRODUCTION TO BUSINESS AND MARKETING II)

The Entrepreneurship course focuses on starting and owning your own business or simply working in nearly any form of business. Students will gain knowledge in the areas of business ownership, management, ethics, legal issues, and leadership necessary to establish and maintain a business entity. Issues will be covered through instructor lectures, guest speakers, text materials, practical applications, and other resources.

BUS461 ADVANCED/COMPUTERIZED ACCOUNTING

(0.5 OR 1.0 CREDIT, 1 OR 2 SEMESTERS) PREREQUISITE: SUCCESSFUL COMPLETION OF BUS351 (ACCOUNTING) AND INSTRUCTOR'S PERMISSION.

More advanced theories of accounting will be presented in this course, including work with partnerships, corporations, and departmental accounting. The student will learn basic principles and terminology of computerized accounting operations. Students will complete culminating business simulation projects.

BUS401 BUSINESS MATH

(1.0 CREDIT, 2 SEMESTERS, 0.5 CREDIT PER SEMESTER) PREREQUISITE: INTEGRATED I

Math content for this course includes calculating discounts, interest rates, percentages, and payroll problems. Emphasis will be placed on federal income tax, financial services and consumer spending/lending problems. **Course may only be cross-credited for 3rd-year math requirement.**

SST412 ECONOMICS

(.5 credit, 1 semester) Prereq: Jr/Sr standing or instructor permission

This course deals with the way that individuals and societies have chosen to use scarce resources for the production of alternative goods. Students will learn how these scarce resources are distributed among its' society. The course emphasizes the economic principles upon which the free enterprise system is based. Students will study the role government plays in this system and compare the American economic system to other types of economic systems. Students will also receive practical information in the field of consumer economics.

MARKETING EDUCATION

MRK201 MARKETING I

(0.5 CREDIT, 1 SEMESTER)

Students will learn the basics of the free enterprise system and the U.S. economy. Students will learn how market decisions are made and will be able to make these same decisions through computer simulations and class activities. Leadership development will be a part of this class through DECA (www.WADECA.org). Students will have the opportunity to attend local, regional, state and national events to learn more about marketing and compete in classroom-related events.



MRK208 MARKETING II

(0.5 CREDIT, 1 SEMESTER) PREREQ: MRK201, MRK207 OR BUS247

This course is a continuation of Marketing I with special emphasis on the promotional aspects of Marketing. Students will learn how market/promotional decisions are made and will be able to make these same decisions through computer software and class activities. Leadership development will be a part of this class through DECA (www.DECA.org). Students will have the opportunity to attend local, regional, state and national events to learn more about marketing and compete in classroom-related events.

MRK214 MARKETING III

(0.5 CREDIT, 1 SEMESTER) PREREQ: MRK208

Marketing III is a unique and innovative course. The course is designed as an advanced application of the concepts learned in Marketing I and II. By focusing on this industry, we will allow students to apply concepts in "real-world" situations. An integral addition to the course will be the use of the national DECA organization as a leadership development tool.

MRK219 MARKETING IV

(0.5 CREDIT, 1 SEMESTER) PREREQ: MRK214

Marketing IV is a continuation of Marketing III with the student being the major influencer of the curriculum. The course is designed as an advanced application of the concepts learned in Marketing I, II and III. By focusing on this industry, we will allow students to apply concepts in "real-world" situations. An integral addition to the course will be the use of the national DECA organization as a leadership development tool.

MRK212 MARKETING SEMINAR

(0.5 credit, 1 semester) Prereq: MRK201 and MRK208 and teacher signature: 10th-12th grade

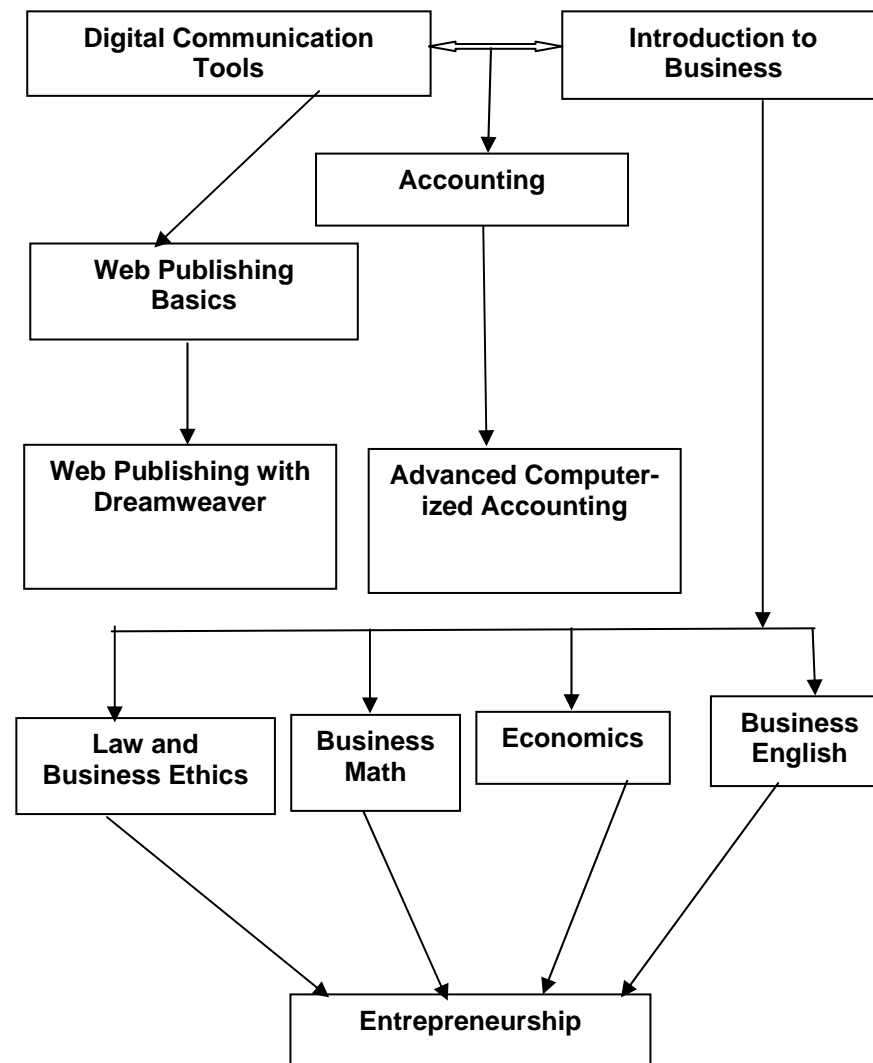
This is a capstone course of the Marketing Certificate Program. Students will work on specialized advanced projects (DECA). Participation in DECA competitive events program is required. The course is offered at any period to fit into the schedule of student and instructor.

MRK207 SPORTS & ENTERTAINMENT MARKETING

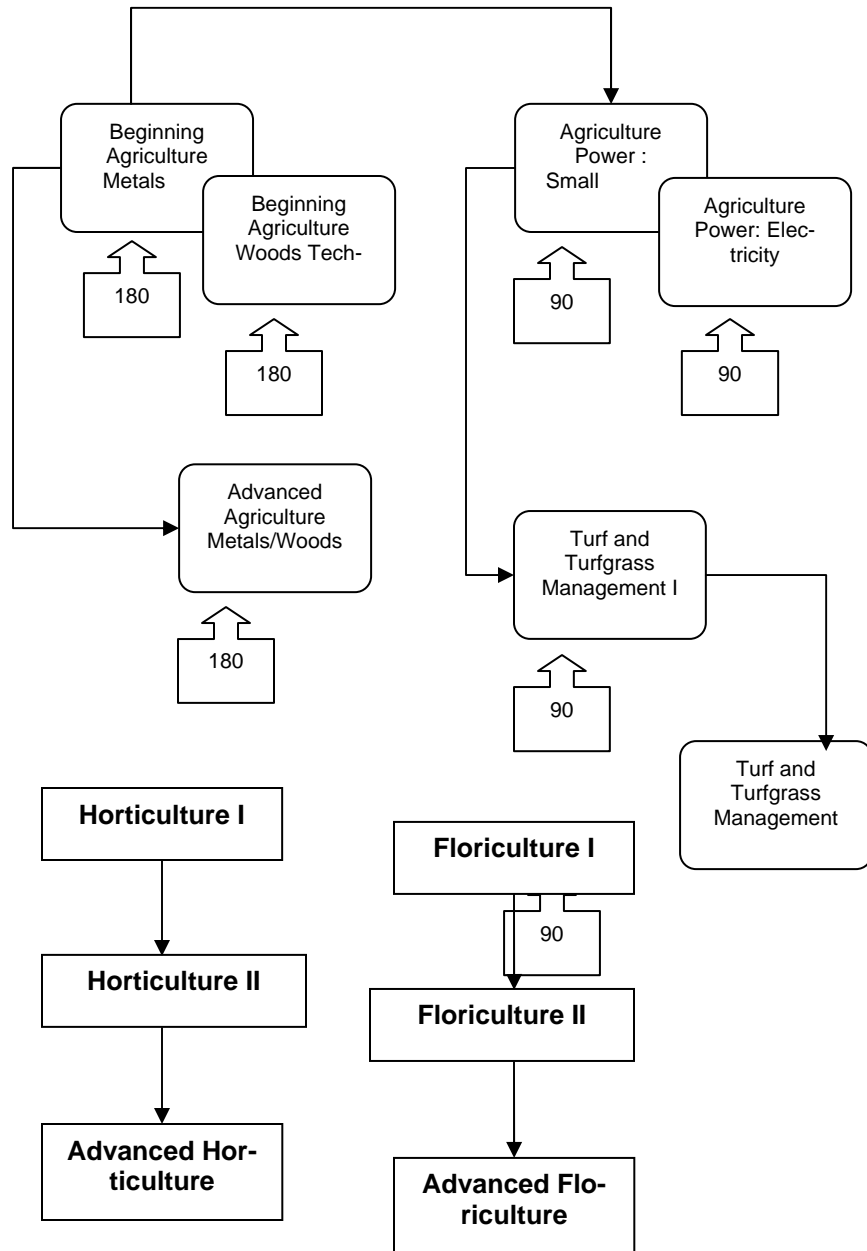
(0.5 CREDIT, 1 SEMESTER) PREREQ: MRK208

This is an introductory course which will help develop an understanding of the marketing concepts and theories that apply to sports and sporting events. The areas covered include basic marketing, target marketing and segmentation, sponsorship, event marketing, promotions, sponsorship proposals and sports marketing plans. This course will also delve into the components of promotion plans, sponsorship proposals and the key elements needed in sports marketing plans.

BUSINESS EDUCATION COURSE SEQUENCE



AGRICULTURE SCIENCE COURSE SEQUENCE



MARKETING EDUCATION

MRK218 SPORTS & ENTERTAINMENT MANAGEMENT

(0.5 CREDIT, 1 SEMESTER) PREREQ: MRK207 AND INSTRUCTOR APPROVAL.

This is an introductory course which will help develop an understanding of the management concepts and theories that apply to sports and sporting events. The areas this course will cover include basic marketing, target marketing and segmentation, sponsorship, event marketing, promotions, sponsorship proposals and sports marketing plans. This course will also delve into the components of staffing and evaluation elements needed in sports marketing plans.

WORK-BASED LEARNING

BUS345 WORK-BASED LEARNING

Students can earn up to 1.0 credit per semester.

Students can earn .5 credit for 180 hours of work.

Students can earn 1.0 credit for 360 hours of work.

Note: Students must complete the necessary paperwork and return it to the CTE office by the 5th day of school of each term.

This class is graded with a Credit or No Credit grade.

This class is open to Juniors and Seniors Only.

Students must be enrolled in Career Choices class which meets during Advisory.

BUS347 CAREER CHOICES

(1 SEMESTER) PREREQUISITE: JUNIOR OR SENIOR STANDING.

Career Choices is a career exploration for juniors and seniors who plan to participate in a work-based learning experience. Students explore career paths, create career goals, design career plans, etc. Students enrolled in WBL must be enrolled in this class to receive credit for their work hours. **Class meets during advisory.** Grades are offered credit/no credit only.

Students taking the class a second time will receive more in-depth training.

BUS348 WORK-BASED LEARNING – CREDIT UNION

CREDIT, 2 SEMESTERS, 0.5 CREDIT PER SEMESTER)

Gain valuable work experience while receiving high school credit working for **SnoFalls Credit Union** at our branch on campus. You will learn how to open accounts, provide excellent customer service, and other credit union services. Part of the curriculum will be marketing and publicizing our branch. A **SnoFalls Credit Union** staff person provides complete training. This class is offered during 4th period **ONLY**. See **CTE director** for application. Repeatable for credit.

COMPUTER SCIENCE AND ARCHITECTURAL/ENGINEERING DESIGN

CMP365 INTRODUCTION TO COMPUTER PROGRAMMING

(1.0 CREDIT, 2 SEMESTERS) PREREQUISITE: SUCCESSFUL COMPLETION OF INTEGRATED I.



Students will receive a background in general computer programming principles. They will learn to program in C++. Objectives and activities of the course include understanding how a computer processes programs, writing programs, studying the advantages of structured programming, and involvement in writing and “debugging” personal programs.

CMP366 ADVANCED COMPUTER PROGRAMMING

(1.0 CREDIT, 2 SEMESTERS) PREREQUISITE: SUCCESSFUL COMPLETION OF CMP 365.



This class is for those students who are considering careers in the software industry. The class will focus on problem solving and turning solutions into usable code. Students will be programming in C++ and/or other programming languages. Those wishing to retake the course for credit will learn advanced programming techniques and may elect to learn other programming languages.

CMP371 PROGRAMMING FOR GAMES AND REAL-TIME SIMULATION

(1.0 CREDIT, 2 SEMESTERS) PREREQUISITE: SUCCESSFUL COMPLETION OF CMP365 (WITH AN A OR B), CMP 366, OR PERMISSION FROM INSTRUCTOR.

This class is for those students who are seriously considering careers in the software industry, especially in the games and simulation sectors. The class will focus on problem solving, game design, and turning solutions into real games and/or simulations. Students will be programming in C++ and/or other programming languages. They will use DirectX and other rendering technologies. This course may be retaken for credit.

CMP442 AP COMPUTER SCIENCE

(1.0 CREDIT, 2 SEMESTERS) PREREQUISITE: SUCCESSFUL COMPLETION OF CMP365 (WITH AN A OR B), CMP 366, OR PERMISSION FROM INSTRUCTOR.

Students will program in Java, take AP samples tests, and do other applicable assignments in preparation for the **Advanced Placement (AP)** computer science exam (**AB**). Course credit is dependent upon completion of the AP exam. There is a fee for this exam. This is a one credit class; credit with grade will be awarded in June after completion of the class. Students cannot drop this class at the end of the first semester

IND111 APPLIED MATHEMATICS

(1.0 credit, 2 semesters) Prerequisite: B or better in Pre-Integrated Math or C or better in Integrated I.

This course offers the student the opportunity to apply algebra and geometry concepts to problem-solving, decision-making and hands on laboratory activities that reflect activities a person would perform in the workplace. The areas of study will include but not be limited to using fractions, graphing, measuring, estimating, working with 2 dimensional shapes, ratios, vectors, scientific notation, data interpretation and lines and angles.

IND252 ARCHITECTURAL AND ENGINEERING DESIGN I

(1.0 CREDIT, 2 SEMESTERS) OPEN TO ALL STUDENTS. INTEGRATED I IS HIGHLY RECOMMENDED. STUDENTS CAN EARN COLLEGE CREDIT THROUGH COLLEGE CREDIT AND CAREERS NETWORK.



Students learn Computer-Aided Drafting/Design (CAD) techniques. AutoCad is used for CAD drawings. Standard drafting practices are learned and applied to drawings and engineering projects. A final design project is included each semester to challenge the student’s knowledge and skill. Leadership is offered through SkillsUSA.

SPORTS MEDICINE

SMD100 SPORTS MEDICINE I

(1.0 credit, 2 semesters) 9th-12th grade

Credit: PE, Occupational or Elective



This course is designed as an intro to Health Science Careers and will cover basic Sports Medicine concepts. Students interested in medical or science careers will gain important skills and information. They will become American Red Cross certified in first aid/CPR/AED; they will dive into ways to prevent, recognize, and evaluate athletic injuries, learn how to rehabilitate and recondition an injury. Anatomy/physiology, sports nutrition, and training/physical testing techniques are also covered.

SMD101 SPORTS MEDICINE LAB

(0.5-1.0 credits, 2 semesters) 9th-12 grade

Credit: Occupational, PE or Elective

Students may enroll in Sports Medicine Lab after school, to put their skills to use in an actual work environment. Successful completion of 90 hours of laboratory experience will result in an additional 0.5 credits earned in Sports Medicine. Students in Sports Medicine I, II, or III are welcome! Repeatable for credit. Must be enrolled in Sports Medicine I, II, or III concurrently.

SMD200 SPORTS MEDICINE II

(1.0 credit, 2 semesters) 11th-12th grade

Credits: Occupational, PE or Elective Prerequisites: Completion of Sports Medicine I



This course takes a more in-depth look into the vast dynamics of Sports Medicine. The advanced student will enhance their leadership skills and will improve their injury evaluation skills. Sports nutrition and rehabilitation/conditioning concepts will be covered in greater detail and the students will design programs for various athletes/situations. Students are required to job shadow a medical professional and enroll in Sports Medicine Lab.

SMD300 SPORTS MEDICINE III

(0.5 CREDITS, 1 SEMESTER) 11TH -12TH GRADE MAY BE REPEATED ONE TIME FOR ADDITIONAL 0.5 CREDITS

CREDITS: OCCUPATIONAL, PE OR ELECTIVE PREREQUISITES: COMPLETION OF SPORTS MEDICINE I AND II

This course will allow the advanced student to further develop their skills in Sports Medicine, career enhancement and leadership development through independent research, practice, and presentation opportunities. The course will consist of a combination of classroom instruction, seminars and community-based internship/experiences.

MEDIA ARTS

IND243 DIGITAL CINEMA II

(0.5 CREDIT, 1 SEMESTER) PREREQUISITE: SUCCESSFUL COMPLETION OF IND241 (INTRO TO ANIMATION AND VIDEO). RECOMMENDED: IND242 (DIGITAL CINEMA I)

Students complete the dramatic class movie and behind the scenes documentary begun in Digital Cinema I. Students develop teams that work on shooting, editing, animation, audio, music, special effects, and production of the DVD movie release. Repeatable for credit.

IND245 MEDIA WEBCASTING I

(0.5 credit, 1 semester) Prerequisite: Successful completion of IND241 (Intro to Animation and Video).

Students learn Internet-based audio and video broadcasting. Students make audio and video productions available to a worldwide audience through the use of live and on-demand Webcasting technologies. Common streaming media formats are covered. Produce stories for an online radio show and work as part of a crew Webcasting a live event.

IND257 MEDIA WEBCASTING II

(0.5 CREDIT, 1 SEMESTER) PREREQUISITE: SUCCESSFUL COMPLETION OF IND245 (MEDIA WEBCASTING I)

Students continue their semi-independent study of Internet-based audio and video broadcasting. Students continue to make audio and video productions available to a worldwide audience through the use of live and on-demand Webcasting technologies. Students in Media Webcasting 2 complete streaming on-demand and live event projects for internal and external clients by leading small production teams formed from introductory and other advanced courses. **Repeatable** for credit.

IND120 INTRODUCTION TO PHOTOGRAPHY AND IMAGING

(0.5 CREDIT, 1 SEMESTER) THIS COURSE SATISFIES A FINE ARTS, OCCUPATIONAL OR ELECTIVE CREDIT.

Students capture and manipulate images using traditional and digital skills called upon by the photographic, desktop publishing, Web design, video production, and animation industries. Students are introduced to digital still camera exposure and handling techniques. Students are introduced to software and techniques used for digital layout and design. Students develop their eye for composition with both still camera and the graphics software. Students create unique and original images that communicate a message to the consumer.

IND121 PHOTOGRAPHY I

(0.5 CREDIT, 1 SEMESTER) PREREQUISITE: SUCCESSFUL COMPLETION OF IND120 (INTRODUCTION TO PHOTOGRAPHY AND IMAGING)

Students work with traditional and digital photographic still cameras to capture a variety of image types. Students learn exposure techniques, zone system placement and lighting approaches. Special emphasis is given to portraiture, product shots, and photojournalism. Students work in the darkroom and with the computer to prepare images for display and publication.

IND122 PHOTOGRAPHY II

(0.5 CREDIT, 1 SEMESTER) PREREQUISITE: IND121 PHOTOGRAPHY I

Students continue their semi-independent study of traditional and digital photographic techniques. Special emphasis is given to commercial photographic approaches. Students work in the darkroom and with the computer to prepare images for display and publication. Students in Photography 2 spend the entire semester creating a substantive personal portfolio or work for clients. **Repeatable for credit.**

CAREER AND TECHNICAL EDUCATION

COMPUTER SCIENCE AND ARCHITECTURAL/ENGINEERING DESIGN

IND352 ARCHITECTURAL AND ENGINEERING DESIGN II

(1.0 CREDIT, 2 SEMESTERS) PREREQUISITE: SUCCESSFUL COMPLETION OF IND252. *STUDENTS CAN EARN COLLEGE CREDIT THROUGH COLLEGE CREDIT AND CAREERS NETWORK.*



College Credits

Students learn advanced CAD techniques, including extensive work in 3-D. Three dimensional models are created and rendered in various programs. Independent and group activities are included. Leadership is offered through SkillsUSA.

IND452 ARCHITECTURAL AND ENGINEERING DESIGN III

(1.0 CREDIT, 2 SEMESTERS) PREREQUISITE: SUCCESSFUL COMPLETION OF IND 352. *STUDENTS CAN EARN COLLEGE CREDIT THROUGH COLLEGE CREDIT AND CAREERS NETWORK.*



College Credits

Extensive work in 3-D CAD, 3-D modeling for students interested in engineering, architecture, interior design, and/or computer game design. Leadership is offered through SkillsUSA.

IND552 ARCHITECTURAL AND ENGINEERING DESIGN IV

(0.5 CREDIT, 1 SEMESTER) PREREQUISITE: SUCCESSFUL COMPLETION OF IND452.

Students refine their skills in 3-D modeling and illustration keeping their customers in mind at all times. Student skill sets and projects are defined and evaluated by the student and instructor. Leadership is offered through SkillsUSA.

IND554 ARCHITECTURAL AND ENGINEERING DESIGN V

(0.5 CREDIT, 1 SEMESTER) PREREQUISITE: SUCCESSFUL COMPLETION OF IND452.

Students refine their skills in 3-D modeling and illustration keeping their customers in mind at all times. Student skill sets and projects are defined and evaluated by the student and instructor. Leadership is offered through SkillsUSA.

IND553 ARCHITECTURAL AND ENGINEERING DESIGN VI

(0.5 CREDIT, 1 SEMESTER) PREREQUISITES: PERMISSION FROM INSTRUCTOR.

Students will design their own products and create working prototypes. This course is designed to take students through the design process from idea to working model. Students must write a proposal and have it pre-approved by the instructor before enrolling in the class. Concurrent enrollment in a manufacturing class is helpful, but not required. Leadership is offered through SkillsUSA.

IND555 ARCHITECTURAL AND ENGINEERING DESIGN VII

(0.5 CREDIT, 1 SEMESTER) PREREQUISITES: PERMISSION FROM INSTRUCTOR.

Students will design their own products and create working prototypes. This course is designed to take students through the design process from idea to working model. Students must write a proposal and have it pre-approved by the instructor before enrolling in the class. Concurrent enrollment in a manufacturing class is helpful, but not required. Leadership is offered through SkillsUSA.

IND556 ROBOTICS

(0.5 CREDIT, 1 SEMESTER) PREREQUISITES: SUCCESSFUL COMPLETION OF IND252 AND CMP365 OR PERMISSION FROM INSTRUCTOR.

Students learn the fundamentals of robotics. Students will incorporate the engineering and programming skills learned from prerequisite classes into building a functional robot. They will build, program, and test a robot to navigate a maze and/or do other simple tasks. Students will purchase their own robot kits to take home when finished for \$150.00. Leadership is offered through SkillsUSA.

CAREER AND TECHNICAL EDUCATION

MEDIA ARTS

IND241 INTRODUCTION TO ANIMATION AND VIDEO

(0.5 CREDIT, 1 SEMESTER) THIS COURSE SATISFIES A FINE ARTS, OCCUPATIONAL OR ELECTIVE CREDIT.

Explores media arts with an introductory overview of tools and techniques used to create animation and video. For animated works, students create stop motion, 2D, and 3D animation. For audio and video works, students create audio and video programs that tell a story or inform the viewer. Students record, edit, and output audio and video work. Students end the semester by authoring a DVD that highlights the media projects they have made.

IND234 DIGITAL VIDEO I

(0.5 CREDIT, 1 SEMESTER) PREREQUISITE: SUCCESSFUL COMPLETION OF IND241 (INTRODUCTION TO ANIMATION AND VIDEO)

Students master the foundational skills of audio and video production. Students study video technology, basic equipment operation, visual composition, lighting, audio mixing, video switching, production planning, scripting, and post-production editing. Students work in small groups to create short audio and video projects for DVD and online Webcast.

IND255 DIGITAL VIDEO II

(0.5 CREDIT, 1 SEMESTER) PREREQUISITE: SUCCESSFUL COMPLETION OF IND234 (DIGITAL VIDEO I)

Students continue their semi-independent study of video technology, equipment operation, visual composition, lighting, audio mixing, video switching, production planning, scripting, post-production editing, and output for DVD or streaming. Students in Digital Video 2 complete audio and video projects for internal and external clients by leading small production teams formed from introductory and other advanced courses. **Repeatable** for credit.

IND258 2D ANIMATION I

(0.5 CREDIT, 1 SEMESTER) PREREQUISITE: SUCCESSFUL COMPLETION OF IND241 (INTRODUCTION TO ANIMATION AND VIDEO)

Students work with the computer to create traditional 2D and stop motion animation that develops their technical and storytelling skills. The completed animated works may be incorporated video, Web sites, interactive games, or multimedia DVD. Students work as part of a team to create animation that will entertain, educate, inform, simulate, or sell.

IND256 2D ANIMATION II

(0.5 CREDIT, 1 SEMESTER) PREREQUISITE: SUCCESSFUL COMPLETION OF IND258 (2D ANIMATION I)

Students continue their semi-independent study of computer-based traditional 2D and stop motion animation that expands upon their technical and storytelling skills. The completed animated works may be incorporated into video, Web sites, interactive games, or multimedia DVD. Students in 2D Animation 2 spend the entire semester creating a substantive animated short for personal portfolio or a client. Students may lead a small production team formed from introductory and other advanced courses. **Repeatable for credit**



MEDIA ARTS

IND235 DIGITAL IMAGING I

(0.5 CREDIT, 1 SEMESTER) THIS COURSE SATISFIES A FINE ARTS, OCCUPATIONAL OR ELECTIVE CREDIT. PREREQUISITE: SUCCESSFUL COMPLETION OF IND120 (INTRODUCTION TO PHOTOGRAPHY AND IMAGING)

Students work with the computer to prepare content for print, Web, or multimedia. Students create vector and raster photo-illustrations. Additional experience is gained with pixel and vector-based imaging software. Students study desktop publishing as part of a digital imaging workflow. Develop a portfolio that showcases your digital imaging work.

IND238 DIGITAL IMAGING II

(0.5 CREDIT, 1 SEMESTER) PREREQUISITE: SUCCESSFUL COMPLETION OF IND235 (DIGITAL IMAGING I)

Students continue their semi-independent study of digital imaging with continued study of skills needed to create image content for print, Web, or multimedia. Students create advanced vector and raster photo-illustrations. Students in Digital Imaging 2 spend the entire semester creating a substantive personal portfolio or work for clients. **Repeatable** for credit.

IND233 3D ANIMATION I

(0.5 CREDIT, 1 SEMESTER) PREREQUISITE: SUCCESSFUL COMPLETION OF IND 241 (INTRODUCTION TO ANIMATION AND VIDEO)

Students focus their animation study on the changing and challenging field of 3D. Students create models, textured elements, and animated scenes that can be used in simulation, video, or games. Digital characters are made to act and interact in a virtual world. Motion tracking and green screen techniques are used to composite 3D creations with real world video.

IND259 3D ANIMATION II

(0.5 CREDIT, 1 SEMESTER) PREREQUISITE: IND233 (3-D ANIMATION I)

Students continue their semi-independent 3D study of modeling, texturing, animation, and compositing for simulation, video, or games. Students continue to develop their skills in character animation and advanced compositing. Students in 3D Animation 2 spend the entire semester creating a substantive animated short for personal portfolio or a client. Students may lead a small production team that works with Digital Cinema students. **Repeatable for credit.**

IND242 DIGITAL CINEMA I

(0.5 CREDIT, 1 SEMESTER) PREREQUISITE: SUCCESSFUL COMPLETION OF IND241 (INTRO TO ANIMATION AND VIDEO).

Students create short documentary or dramatic movies. This class covers the process of crafting a digital narrative for viewing in a theater, on a TV screen, or on the Web. Students work on the storytelling process and how to write a script. Technical skills in camera operation, lighting, and audio are covered. Students begin work on a larger class movie while making their own individual dramatic or documentary short. **Repeatable for credit**

