

DUAL ENROLLMENT & PATHWAY PROGRAMS

DUAL-ENROLMENT COURSE OFFERINGS

Course Title	College or university	Grade Level	Length
BUS110 Accounting II Honors – Fairleigh Dickinson University		10, 11, 12	FY
BUS140 Business Principles Honors – Fairleigh Dickinson University		11, 12	FY
OPT145 Tomorrow’s Teachers – Rider University		11, 12	FY
SOC700 General Psychology – County College of Morris		11,12	FY
SCI840 Botany – County College of Morris		11, 12	FY
SOC930 Criminal Justice-- County College of Morris		10, 11, 12	FY

Randolph High School currently partners with the County College of Morris, Fairleigh Dickinson University and Rider University, to offer students the opportunity to earn college credits in approved dual enrollment courses. These courses are taught at RHS by our staff. Dual enrollment enables high school students to gauge their ability to do college work prior to full-time college study. Upon successful completion of a dual enrollment course, students are awarded college transcripts that record credits earned. These credits are transferable to hundreds of colleges and universities nationwide.

PLEASE NOTE THAT THERE IS A PER-CREDIT TUITION CHARGE ASSOCIATED WITH DUAL ENROLLMENT AND ALL TEACHERS CAN DISCUSS THIS WITH INTERESTED STUDENTS.

Interested students must complete a registration form and adhere to the rules and policies Randolph High School and the participating college. All registration forms are coordinated through the teachers.

ACCOUNTING II HONORS BUS110 Grades 10, 11,12 Full Year

Students will learn advanced concepts and procedures in accounting using a college level textbook. Students will analyze financial statements, compete in the New Jersey Stock Market Game and the H&R Block Budget Challenge where they will prepare a personal budget. Students will learn about corporate ethics and investigate the effects of alleged corporate greed on our society. Students will be given the opportunity to enroll in the Fairleigh Dickinson Middle College program where they may earn three college credit hours from Fairleigh Dickinson University. These credits can be transferred to many accredited colleges throughout the U.S. Tuition fees apply for the Fairleigh Dickinson Middle College Program.

Prerequisite: Minimum grade average of B in Accounting I

BUSINESS PRINCIPLES HONORS BUS140 Grades 11,12 Full Year

This course is designed to assist students in understanding business so that they can use business principles throughout their lives. Students learn about ethics, management, economics, marketing, production, entrepreneurship, leadership, and more. Students will explore the free market society along with the integration of global issues. At the end of this course students can use their management skills and general business knowledge wherever they go and in whatever career they pursue – including government agencies, charities and social causes. Students may earn 3 college credits through Fairleigh Dickinson’s Middle College Program by successfully completing this course with a C or better. Tuition fees apply for the Fairleigh Dickinson Middle College Program.

Prerequisite: Minimum grade average of B in Marketing I, Accounting I, or AP Economics

GENERAL PSYCHOLOGY SOC700 Grades 11, 12 Full Year

RHS along with CCM under the “Titan Express” program is offering this full-year elective, open to all students presenting the science of psychology. In each section, the student is offered greater insight into the motivations, thought patterns, emotions and behaviors of human beings. Students are expected to actively participate in classroom discussions and activities. Students may earn 3 college credits through County College of Morris. Tuition and fees apply and is the responsibility of the student/family.

CRIMINAL JUSTICE SOC930 Grades 10, 11,12 Full Year

RHS along with CCM under the “Titan Express” program is offering this full-year elective, open to all students presenting this study of the criminal justice system. Students are expected to actively participate in classroom discussions and activities. Students may earn 3 college credits through County College of Morris. Tuition and fees apply and is the responsibility of the student/family.

BOTANY SCI840 Grades 12 Full Year

This course provides an introductory study of botany including the topics of plant anatomy, growth and development, reproduction, photosynthesis and respiration, and a survey of diversity within the plant kingdom including angiosperms, gymnosperms, bryophytes and ferns. Upon successful completion of this course students will be able to: Identify the anatomical parts of plants and describe their functions; Identify the features of a plant cell and describe their functions; Explain the significance of the photosynthetic reactions; Explain the differences and ecological significance of C3, C4 and CAM pathways of photosynthesis; Compare and contrast the life cycles of seed plants versus non-seed plants; List the plant hormones and describe what influence they play in plant growth and development; List the characteristics of ten flowering plant families; Give at least five examples of plant adaptation to environmental stress.

TOMORROW’S TEACHERS OPT145 Grades 11 and 12 Full Year

The “Tomorrow’s Teachers Program” is a full-year course in which students are exposed to four main themes: Experiencing Learning; Experiencing the Profession; Experiencing the Classroom; and Experiencing Education. A variety of hands-on activities and a strong emphasis on observations, and

field experiences are required. Field experience placements may be at an Elementary School, RMS or RHS. Students may apply to receive college credit through Rider University for completing the Tomorrow's Teachers Program.

SPECIAL PROGRAMS

AP Capstone

Description: AP Capstone equips students with the independent research, collaborative teamwork, and communication skills that are increasingly valued by colleges. It cultivates curious, independent, and collaborative scholars and prepares them to make logical, evidence-based decisions. AP Capstone is comprised of two AP courses — AP Seminar and AP Research — and is designed to complement and enhance the discipline-specific study in other AP courses.

Students who earn scores of 3 or higher in AP Seminar and AP Research and on four additional AP Exams of their choosing will receive the AP Capstone Diploma. Students who earn scores of 3 or higher in AP Seminar and AP Research but not on four additional AP Exams will receive the AP Seminar and Research Certificate.

AP Seminar Level AP Grades 10 and 11 ADM500 Full Year Grade 9

AP Seminar is a year-long course that has students investigate real-world issues from multiple perspectives. Students learn to synthesize information from different sources, develop their own lines of reasoning in research-based essays, and design and deliver oral and visual presentations, both individually and as part of a team.

- * Format of Assessment:
- * Team Project and Presentation (20% of AP score)
- * Individual Research Report (IRR)
- * Team Multimedia Presentation (TMP)
- * Oral defense
- * Individual Research-based Essay and Presentation (35% of AP score)
- * Individual Written Argument (IWA)
- * Individual Multimedia Presentation (IMP)
- * Oral defense
- * Two-hour End-of-Course exam (45% of AP score)
- * Understanding and analyzing an argument (3 short answer questions); suggested time of 30 minutes
- * Synthesizing information to develop an evidence-based argument (evidence-based argument essay); suggested time of 90 minutes.

AP Seminar is available to sophomores with a 3.0 unweighted GPA and AP Research is available only to Juniors who have completed AP Seminar. Students who take AP Capstone are academically motivated and are always seeking to improve their reading, writing, and research skills. These students submit high quality work at deadlines, exemplify the highest degree of academic and personal integrity, and exert a concerted effort to schedule trips and appointments outside of the school day.

AP Research Level AP Grades 11 and 12 ADM520 Full Year Grade 9

AP Research allows students to deeply explore an academic topic, problem, or issue of individual interest. Through this exploration, students design, plan, and conduct a year-long research-based investigation to address a research question.

In the AP Research course, students further their skills acquired in the AP Seminar course by

understanding research methodology; employing ethical research practices; and accessing, analyzing, and synthesizing information as they address a research question. Students explore their skill development, document their processes, and curate the artifacts of the development of their scholarly work in a portfolio. The course culminates in an academic paper of 4000-5000 words (accompanied by a performance or exhibition of product where applicable) and a presentation with an oral defense.

* Format of Assessment:

* Individual Academic Paper consisting of 4000-5000 words (75% of AP score)

* Individual Presentation and Oral Defense (15-20 minutes in length) (25% of AP score)

Pathways Programs

At Randolph High School, Pathways Programs allow students to pursue themed electives providing a rich background in a focused area of study. This flexible approach to scheduling creates opportunities for students to complete a particular “Pathway” in one specialized area or concentration. The Pathway Program is optional and will give interested students the chance to demonstrate commitment to a particular area of study.

PATHWAYS...

- o Provide focus in a specific area of study
- o Allow for a variety of electives while providing a themed approach
- o Demonstrate a commitment to an interest area
- o Exhibit quality of depth of knowledge in selected Pathway

Computer Science Pathways

A pathway program is designed to expose students to a focused series of courses that will further prepare them for colleges and careers. These courses help students connect learning in the classroom with real-world application. By selecting a four-course sequence in a pathway, students will pursue an area of interest similar to a college major.

Randolph High School is pleased to make two new pathways programs available to students beginning in the 2018-2019 school year: Computer Science and Programming Pathway & Interactive Media Pathway.

Pathways Requirements

- Apply to the program with guidance counselor support
- Complete a minimum of twenty credits within the focus area
- Complete four courses in the designated pathway program
- Pass all courses taken in the pathway sequence
- Students will have the option to complete senior projects through the district’s Option II program if desired

Interactive Media Pathway

A pathway designed for students with a passion for computers and digital media. Sequence of Courses to Choose From

Course	Credits	Recommended Year
Computer Graphics and Design (required)	5.00	9th or 10th
AP Computer Science Principles (required)	5.00	9th or 10th
Microsoft Office Professional (required)	5.00	10th, 11th, or 12th
Digital Marketing (choice)	2.5	10th or 11th
Smartphone Photography (choice)	2.5	10th or 11th
Advanced Computer Graphics Honors (choice)	5.00	11th or 12th
Animation and Web Design (choice)	5.00	11th or 12th

Total Credits Needed for Pathways Distinction: 20

Students interested in pursuing this pathway are asked to complete an application found online.

AP COMPUTER SCIENCE PRINCIPLES MAT550 Grades 9,10,11,12 Full Year

Advanced Placement - Level Honors

NCAA Approved Course

This AP class is designed for any student with a passion for computer technology. Students do not need any background in coding. This course would be appropriate for a freshmen looking to take an AP course and who has successfully completed Algebra I. The objectives of the AP Computer Science Principles course is to introduce students to the central ideas of computer science, instilling the ideas and practices of computational thinking and inviting students to understand how computing changes the world. This course promotes deep learning of computational content, develops computational thinking skills, and engages students in the creative aspects of computer science. The course is unique in its focus on fostering students to be creative.

Note: A background in programming is not necessary for success in this course. There is no prerequisite computer programming class – just a passion for technology. Prerequisite: Algebra I

Programming with Python and JAVA MAT850 Grades 10,11,12 Full Year

Level Honors

NCAA Approved Course

In this course students will develop computer programming techniques and learn the basic structures and syntax of the Python and JAVA programming languages. One semester will be spent writing, debugging, testing, and running programs in Python, and the other in JAVA. Prerequisite: AP Computer Science Principles or successful completion of a performance task.

AP COMPUTER SCIENCE A MAT530 Grades 11,12 Full Year

Advanced Placement - Level Honors

NCAA Approved Course

In this Advanced Placement course, students will continue to develop computer programming techniques learned in previous classes as well as computer science topics determined by the College board. College credits may be earned by taking the Advanced Placement Exam in the spring. Major topics include: JAVA programming methodology, features of programming languages, algorithms, computer systems, and responsible use of computer systems. Students are encouraged to take the Advanced Placement Examination.

Prerequisite: Programming with Python and JAVA

Data Structures and Algorithms in JAVA MAT860 Grades 12 Full Year

Level Honors

NCAA Approved Course

This course continues to deepen students' understanding and practice of object oriented programming in JAVA. Core topics in the context of the Java programming language include practical implementations of fundamental and more advanced data structures (linked lists, hash encoded storage, binary search trees, algorithms for organizing and manipulating data – including sorting, searching, and traversal algorithms), and time complexity of algorithms in a problem-solving oriented context. Much of the course is project-based, with assignments stressing the design of classes and algorithms appropriate to a particular problem.

Prerequisite: AP Computer Science A and Pre-calculus

ROBOTICS AND CONTROL TECHNOLOGY TEC110 Grades 10,11,12 Full Year

This course is designed to allow you to explore the world of "control", having a device perform a function that a human wants it to do. This concept of control is the basis for most areas of modern technology and it will help you see that "smart" machines are nothing more than the end result of people incorporating their intelligence into the machine's design. You'll be designing and building models related to the concepts of control.

Recommended: Technology and Design or Transportation Technology

INTERACTIVE MEDIA PATHWAY

AP COMPUTER SCIENCE PRINCIPLES MAT550 Grades 9,10,11,12 Full Year

Advanced Placement - Level Honors

NCAA Approved Course

This AP class is designed for any student with a passion for computer technology. Students do not need any background in coding. This course would be appropriate for a freshmen looking to take an AP course and who has successfully completed Algebra I. The objectives of the AP Computer Science Principles course is to introduce students to the central ideas of computer science, instilling the ideas and practices of computational thinking and inviting students to understand how computing changes the world. This course promotes deep learning of computational content, develops computational thinking skills, and engages students in the creative aspects of computer science. The course is unique in its focus on fostering students to be creative.

Note: A background in programming is not necessary for success in this course. There is no prerequisite computer programming class – just a passion for technology.

Prerequisite: Algebra I

DIGITAL MARKETING BUS885 Grades 10, 11, 12 Semester

This course is designed to explore channels of non-traditional (TV, Print, Radio) advertising. It is the promotion of products or brands via one or more forms of electronic media tools such as social media, online listening and monitoring, web analytics, search engine optimization, and email marketing. Students will learn the fundamentals of marketing concepts with a focus on the methods and challenges in the digital marketing arena. Prerequisite: Introduction to Business or Marketing I

MICROSOFT OFFICE PROFESSIONAL BUS150 Grades 9,10,11,12 Full Year

Students learn all the components of Microsoft Office: Word, Excel, Access and PowerPoint. This is the #1 software used in business today. Many colleges expect their students to know how to successfully operate Office. Projects include creating a tribute PowerPoint presentation to your family or favorite band. Create a movie or automobile database using Access. Create a stock portfolio or sports statistics spreadsheet using Excel. Create a satirical newspaper or a business brochure using Word. Students who are juniors and seniors can elect to earn 3 transferable college credits from Fairleigh Dickinson University (pending approval). This course provides an opportunity to obtain MOS Certification. This course is highly recommended for all college and non-college bound students.

COMPUTER GRAPHICS AND DESIGN I ART150 Grades 9, 10, 11, 12 Full Year

Computer Graphics and Design I will give the student a broad exposure in the areas of Graphic Design, Illustration, and Web Design. This class is essential for students who are considering majors such as Art, Engineering, Architecture, and Fashion Design in college. Adobe Creative Suite is the primary application used to develop and refine skills as an artist. Many of the assignments can be used for the student's portfolio for college entrance requirements.

ANIMATION AND WEB DESIGN ART 540 Grades 10, 11, 12 Full Year

Animation and Web Development is an exciting and growing career of study for creative people. Animation and Web Design will provide an introduction into how the many facets of interactive design are developed, created, and published. Students will understand the structure of how professional works are developed through exploration, practice, and creation of original works. Prerequisite: Computer Graphics & Design (ART 150, Full Year) Required. Drawing (ART 120) Recommended

COMPUTER GRAPHICS & DESIGN II HONORS ART160 Grades 10, 11, 12 Full Year

Computer Graphics & Design II honors is designed for students who want to further their study of computers and software used as a creative media for designing and generating imagery for print, web and multimedia. This course will focus on exploring the entire adobe creative suite including Photoshop, Illustrator, Dreamweaver Acrobat Professional, Flash and InDesign. Areas of study will include typography, graphic design, illustration, and the various ways work may be presented as a finished portfolio.

Prerequisite: Computer Graphics & Design (ART 150, Full Year)

SMARTPHONE PHOTOGRAPHY ART845 Grades 9, 10, 11, 12 Semester

Smartphone Photography will provide a basic understanding of how the smartphone camera functions and how to get the most out of it. Advanced features and available applications for the smartphone will be investigated as well as image adjustment and output options such as printing and the internet. Access to a smartphone is required in order to create a personalized experience.

Business Pathways

A pathway program is designed to expose students to a focused series of courses that will further prepare them for colleges and careers. These courses help students connect learning in the classroom with real-world application. By selecting a four-course sequence in a pathway, students will pursue an area of interest similar to a college major.

Randolph High School is pleased to make three new business pathway programs available to students beginning in the 2019-2020 school year.

Business Pathway - Business

Business Pathway - Accounting

Business Pathway - Marketing

Pathways Requirements

- Apply to the program with school counselor support
- Complete a minimum of twenty credits within the focus area
- Complete four courses in the designated pathway program
- Pass all courses taken in the pathway sequence
- Students will have the option to complete senior projects through the district's Option II program if desired

Pathways Benefits

- Provides focus in a particular area of study
- Demonstrates a commitment to a particular area of interest
- Allows for students to demonstrate depth of knowledge in a particular area
- Scheduling can be cohort-based with pathways students scheduled together (when possible)
- Pathways cohorts will be linked with Naviance to keep students informed regarding STEM and computer science college visits and other opportunities
- Recognition on transcript and supporting documentation sent to colleges

The Randolph Pathways Program will offer students themed electives that will provide a rich background in a particular area of study while also establishing a foundation for a potential college major or career path.

Pathways programs in Randolph will be open to ALL students with no GPA requirement.

Students who complete a pathway program will receive on their transcript a note indicating program completion and also a letter describing the pathways program they took and the list of courses that were taken to complete the program. If students apply for college admission before completion of a pathway program, their application packet will still include program information but will be noted as being "in progress."

Business Pathway – Business

A pathway designed for students with a more intense focus on business and business administration.

Sequence of Courses to Choose From

Course	Credits	Recommended Year
Accounting I (required)	5.00	9th or 10th
Introduction to Business-Semester (choice)	2.50	9th or 10th
Personal Finance – Semester (choice)	2.50	9th or 10th
Business Principals Honors (required)	5.00	10 th or 11th
Starting a Business (choice)	5.00	11 th or 12th
International Business-choice (choice)	5.00	11 th or 12th Total
Credits Needed for Pathways	20.00	

Business Pathway – Accounting

A pathway designed for students with a passion for accounting.

Sequence of Courses to Choose From

Sequence of Courses to Choose From

Course	Credits	Recommended Year
Accounting I (required)	5.00	9th or 10th
Introduction to Business-Semester (choice)	2.50	9th or 10th
Personal Finance – Semester (choice)	2.50	9th or 10th
Accounting II Honors (required)	5.00	10 th or 11th
Marketing I or II (choice)	5.00	10 th , 11 th or 12th
Business Principles Honors (choice)	5.00	10 th , 11 th or 12th
Starting a Business (choice)	5.00	11 th or 12th
International Business-choice (choice)	5.00	11 th or 12 th
Digital Marketing	5.00	11 th or 12th
Total Credits Needed for Pathways	20.00	

Business Pathway – Marketing

A pathway designed for students with a passion for marketing.

Sequence of Courses to Choose From

Sequence of Courses to Choose From

Course (required)	Credits 5.00	Recommended Year 9th or 10th	Accounting I
Introduction to Business-Semester (choice)	2.50	9th or 10th	
Personal Finance – Semester (choice)	2.50	9th or 10th	
Marketing I (required)	5.00	10 th or 11 th	
Marketing II (required)	5.00	10 th , 11 th or 12 th	
Business Principles Honors (choice)	5.00	10 th , 11 th or 12 th	
Accounting II Honors (choice)	5.00	10 th , 11 th or 12 th	
Starting a Business (choice)	5.00	11 th or 12 th	
International Business-choice (choice)	5.00	11 th or 12 th	
Digital Marketing	5.00	11 th or 12 th	
Total Credits Needed for Pathways	20.00		

MARKETING I BUS120 Grades 10, 11, 12 Full Year

If you have ever seen a TV commercial, magazine or Internet advertisement, or selected an article of merchandise to purchase, you have taken part in the marketing cycle. This class will allow students to examine marketing and the entire process that a product goes through before it reaches the consumer. Students will learn about the inception of new product ideas, research and development, promotion of the new product and selling the product to consumers. Students will be introduced to perspectives on all aspects of marketing including advertising, sales, promotion, direct and database marketing, business-to-business marketing, marketing research and customer relationships to product producers.

MARKETING II HONORS BUS130 Grades 11, 12 Full Year

This course will promote student learning of advanced concepts and processes in marketing that build on the learning from the Marketing I course. Students will be given the opportunity to deepen their marketing experience by understanding the role of effective market research. They will also investigate how new companies create market opportunities. The role of the Internet and other technologies that have revolutionized the marketing industry will be explored. Students will complete their own marketing project which includes a marketing plan/analysis.

Prerequisite: Minimum grade average of B in Marketing I.

INTRODUCTION TO BUSINESS BUS835 Grades 9, 10, 11, 12 Semester

This course is designed to promote student investigation of basic business principles that can be used in future coursework and in life. Topics will include entrepreneurship, marketing, business finance, and consumerism. Basic accounting, checking, savings, budgets, insurance, small business ownership and management will also be included. This course will provide a solid foundation for students who wish to pursue other business courses (accounting, marketing, etc.).

ACCOUNTING I BUS100 Grades 9,10,11,12 Full Year

This course is designed to help the student understand the basic accounting principles and procedures used in keeping financial records for businesses that operate in the private enterprise economy of the United States. Students will learn about Investment Products, Credit, and various types of Insurance beneficial to their future. Students will also learn the “language of business” and be introduced to the elements of the accounting cycle, the “value” of money, prepare financial reports, reconcile bank statements, research and complete case studies, and learn how to run their own businesses. Additionally, students will learn how to compute personal and corporate income taxes. This course meets the Financial Literacy requirement.

ACCOUNTING II HONORS BUS110 Grades 10, 11,12 Full Year

Students will learn advanced concepts and procedures in accounting using a college level textbook. Students will analyze financial statements, compete in the New Jersey Stock Market Game and the H&R Block Budget Challenge where they will prepare a personal budget. Students will learn about corporate ethics and investigate the effects of alleged corporate greed on our society. Students will be given the opportunity to enroll in the Fairleigh Dickinson Middle College program where they may earn three college credit hours from Fairleigh Dickinson University. These credits can be transferred to many accredited colleges throughout the U.S. Tuition fees apply for the Fairleigh Dickinson Middle College Program.

Prerequisite: Minimum grade average of B in Accounting I

BUSINESS PRINCIPLES HONORS BUS140 Grades 11,12 Full Year

This course is designed to assist students in understanding business so that they can use business principles throughout their lives. Students learn about ethics, management, economics, marketing, production, entrepreneurship, leadership, and more. Students will explore the free market society along with the integration of global issues. At the end of this course students can use their management skills and general business knowledge wherever they go and in whatever career they pursue – including government agencies, charities and social causes. Students may earn 3 college credits through Fairleigh Dickinson’s Middle College Program by successfully completing this course with a C or better. Tuition fees apply for the Fairleigh Dickinson Middle College Program.

Prerequisite: Minimum grade average of B in Marketing I, Accounting I, or AP Economics

STARTING A BUSINESS/ENTREPRENUERSHIP BUS845 Grades 11,12 Semester

This course is designed to explore what students must know about themselves and business in order to be successful small business owners (entrepreneurs). Students will cover the topics of understanding the important personal qualities necessary to be successful business owners, choosing a business, organizing their business, understanding their markets and competitors, marketing their products and services, and planning their financial needs.

INTERNATIONAL BUSINESS BUS855 Grades 11,12 Semester

This course will allow the student to explore the world of business from the global perspective. Students will examine how various cultures and economic structures impact on business activities and

decisions. Students will explore relevant topics including cultural exchange, import and export, currency and risk management, marketing and promotion. Students will understand how successful businesses operate in the global marketplace.

PERSONAL FINANCE BUS865 Grades 9,10,11,12 Semester

This course satisfies the graduation requirements related to economics and financial literacy. Personal Finance provides an essential foundation in everyday financial living skills. Students will be able to apply problem solving techniques and decision making processes to make sound economic choices. They will acquire and use skills for budget preparation, saving and investing, insurance protection, income tax preparation, wise use of credit, transportation choices, and housing options. Consumer protection laws and fraud protection are investigated. Technology will be used to do research on the internet, access financial simulations, complete interactive activities, and use computer applications to complete assignments and projects.

DIGITAL MARKETINGBUS885Grades 10, 11, 12Semester**

This course is designed to explore channels of non-traditional (TV, Print, Radio) advertising. It is the promotion of products or brands via one or more forms of electronic media tools such as social media, online listening and monitoring, web analytics, search engine optimization, and email marketing. Students will learn the fundamentals of marketing concepts with a focus on the methods and challenges in the digital marketing arena.

Prerequisite: Introduction to Business or Marketing I