



Students in the SCCC College in the High School program are taught at the high school by qualified high school teachers who are accepted as CHS adjunct faculty at Schenectady County Community College.

Courses – Below is a list of current courses being offered in the College in the High School program and their descriptions. Any of these can be considered for inclusion at high schools. In addition, SCCC is willing to consider inclusion of other courses that could be proposed for the College in the High School program. All courses must be part of normal SCCC offerings as found in the course catalog at this link:

<http://www.sunysccc.edu/academic/courses/catalog/>

Benefits -- Students are able to earn college credits which are generally transferable to other SUNY colleges and many private colleges. This allows students a jump start on their college career and could potentially reduce their costs of attending college as well as their time to completion. In addition, students are able to experience the rigor of college classes, resulting in better preparation for their first semester on a college campus. Students who attend SCCC upon high school graduation can be well on their way to a college degree.

Approval Process -- To enter the program, both the instructor and the course must be approved. Instructors must have at least one-year of full-time (not just student teaching) experience teaching in the subject area and a master's degree. SCCC strongly prefers, and in some cases, requires, that the master's degree be in the subject area taught. For other courses, SCCC may accept a master's degree in education or a related area if at least 18 credits of graduate level credits in the subject area have been earned. In some instances, significant professional experience in the field can be considered. Applicants must have a reputation for excellent, effective teaching.

Applicants also need to submit detailed information about how the course will be taught at the high school, based on the SCCC course outline. Instructors are not allowed to teach more than five CHS and/or on-campus courses in a year.

For an application packet with full details about the program and the application process, contact the Interim Director for the College & High School Partnerships, Pam McCall at mccallp@sunysccc.edu or 518-381-1318.

LIST OF COURSES CURRENTLY BEING OFFERED

These courses are currently offered in SCCC's College in the High School program. "PR" refers to prerequisites students need in order to register for the course. Individual departments will determine acceptable equivalencies where noted.

ACC 121 -- Financial Accounting – 4 credits This course introduces the current procedures of financial accounting and generally accepted accounting principles. The course emphasizes the analysis of business transactions and the study of the accounting cycle. Ethics issues are discussed throughout the course. Accrual based accounting concepts, internal controls, and financial statement preparation are addressed as well as the accounting elements of a corporate business entity. Each student will be asked to complete a practice set of entries for a business entity.

ART 128 -- Introduction to Drawing – 3 credits This is a studio art course which includes segments of both lecture-demonstration and drawing. Sessions will include the exploration of concepts through exercises as well as drawing from objects and the model. Drawing is explored as a discipline, as a tool for analysis, description or documentation, as well as a means of composition and expression.

ART 133 -- Appreciation of Art-Painting – 3 credits This course is designed to acquaint students with the history of the visual arts and to help them develop an understanding and appreciation of artistic creativity. Various examples of painting, print-making, and drawing from Western other cultures such as African, South American, and Indo-Chinese will be analyzed in order to promote an awareness of different approaches to these media, forms, and content. No background in art or formal art history is necessary.

ART 135 -- Appreciation of Art-Sculpture and Architecture – 3 credits This course is designed to acquaint students with the spatial arts of sculpture and architecture and to develop in them an appreciation of artistic creativity as it applies to these art forms. An examination will be conducted of cross-cultural influences among architectural styles such as Moorish on early Renaissance, Greek on Roman, etc. Sculpture is analyzed as an independent art form in order to help the student develop an awareness of the variety of media, form, content, and style. No background in art or formal art history is necessary.

BIO 112 -- Human Biology – 4 credits This course considers the human being as a whole organism, with emphasis on human body systems, diseases from malfunctional perspective, environment, and hereditary traits. Laboratory topics cover simple internal anatomy, genetic problems, foodbourne disease investigation, and presentations on human diseases. This course does not satisfy any requirement for the Math/Science, Computer Science or Science degrees. Students may not get credit for this course and BIO 110.

PR: Two years of high school science or math

BIO 141 --Biology I – 4 credits This first semester of a one-year course explores in depth the principles of modern biology. The development of molecular biology and its techniques will be examined, along with its impact on modern concepts of cell structure and physiology, cell reproduction, energy transfer. Genetics, including the structure and role of DNA, is examined. Changes in DNA over time, that is, evolution and adaptation, are discussed. The laboratory portion of the course consists of topics correlating with lecture and designed to lead the student into independent and/or team research and thought. There is a semester-long research project on Mendelian Genetics.

PR: Three years of high school math, high school biology and chemistry or BIO 111 or BIO 112 and CHM 113

BIO 142 -- Biology II – 4 credits This second semester of a one-year course explores in depth the principles of molecular, cellular, and organismal biology. Topics include the molecular basis of inheritance, evolution, population

genetics, six-kingdom analysis, and the systems of the human body. The laboratory portion is designed in three parts. Part one consists of learning techniques in molecular biology. Part two involves learning characteristics of the six-kingdom system and the dissection of the fetal pig for different body systems. Part three consists of conducting a laboratory research project with a formal presentation of the results.

PR: BIO 141

BUS 113 -- Business Mathematics – 3 credits This course emphasizes the concepts of mathematics as they apply to a wide-range of personal and commercial business problems. The topics covered include how to dissect and solve word problems; fractions, decimals; banking; percents and their applications; trade and cash discounts; payroll; simple interest; compound interest and present value; installment buying; depreciation; and inventory and overhead.

PR: MAT 126 or equivalency

BUS 121 – Business Law I – 3 credits This course focuses on the nature and sources of law pertaining to contracts, sales, secured transactions, bankruptcy and insurance.

BUS 212 – Business Communications – 3 credits This course teaches the principles of effective communication in business, both written and oral. It focuses attention on the communication process including effective listening, writing and speaking. Students analyze business letters, reports and memos for organization of ideas, conciseness and clarity. Students are required to write business letters and memos. Students are also required to write a business report and make an oral presentation. Writing resumes and employment letters is also covered in this course.

PR: ENG 123 or equivalency (may be taken concurrently)

CIS 110 -- Workstation Architecture and Support I (A+) – 3 credits This is part one of a two-part, hands-on, lab-oriented course covering the foundations of PC configuration and support. Topics include installation of different versions of the Windows operating system, building, upgrading, repairing, configuring, troubleshooting, optimizing, diagnosing and the preventive maintenance of PC's. Students learn how to build a computer and install different versions of the Windows operating system.

CIS 111 -- Workstation Architecture and Support II (A+) – 3 credits This is part two of a two-part, hands-on, lab-oriented course. Part two of this course introduces local area networks and servers, preventive maintenance techniques, and specific strategies for troubleshooting hardware and software.

PR: CIS 110

CIS 121 -- Introduction to Computers -- 3 credits This course introduces the student to fundamental concepts of computers and computing including number systems, hardware, architecture, information processing, operating systems, networks (including the Internet) and web design. Additionally, students will complete significant projects utilizing contemporary word processing, spreadsheet, and presentation graphics software. Fundamentals of programming will be explored using modern programming languages. Other software applications may be examined during the semester.

PR: BUS 115 (Basic Keyboarding) or equivalent

CIS 129 -- Programming Fundamentals -- 3 credits This course provides an introduction to computer programming using a modern, object-oriented programming language. It is intended to be a beginning programming course focusing on programming concepts and fundamentals.

PR: MAT 128 (Algebra I) or higher

CIS 221 -- Advanced Computer Applications -- 3 credits This course provides students with the opportunity to increase their knowledge of several components of the Microsoft Office suite of software applications. Upon completion of this course, students will be prepared to test as certified Microsoft Office User Specialists.

PR: CIS 121 (Introduction to Computers) or equivalent

CIS 240 -- Internetworking Fundamentals -- 3 credits This course provides an introduction to networking. Topics include basic concepts and terminology relating to LANs and WANs including: data communications, types of networks, networking models and theory, protocols, and equipment. There is a strong emphasis on the OSI Model. The material covered in this course is applicable to sections of the Network+ certification exam. Please note that this is not a review course for the Network+ certification exam.

PR: CIS 221 (Advanced Computer Applications) or equivalent

CIS 241 -- Routing Fundamentals -- 3 credits This course covers the theory and application of routers to internetwork communications. There is an initial review of TCP/IP, Ethernet, the OSI model, network terminology, protocols, and standards. Primary emphasis is given to static routing and TCP/IP. Dynamic routing protocols are also introduced. Students will have the opportunity to work with simulator software to apply the concepts learned in class to a Cisco internetwork.

PR: CIS 240 and CIS 110

CIS 244 -- Introduction to Routing and Switching -- 3 credits This course covers the theory and application of routers and switches to network and internetwork communications. Static and dynamic routing technologies are introduced, along with layer 2 switching and VLANs. Students will have the opportunity to work with both simulator software and actual hardware to apply the concepts learned in class.

PR: CIS 240

This course provides a comprehensive, theoretical, and practical approach to learning the technologies and protocols needed to design and implement a converged switched network. Students learn about the hierarchical network design model and how to select devices for each layer. The course explains how to configure a switch for basic functionality and how to implement virtual LANs, VTP, and Inter-VLAN routing in a converged network. Students will also learn how to implement and configure common data link protocols and how to apply WAN security concepts, principles of traffic, access control and addressing services.

PR: CIS 241

DRA 150 -- Basic Acting -- 3 credits This course investigates a broad range of modern and contemporary theories, ideologies, techniques, and processes in the field of stage acting. Students will apply those concepts to in-class exercises, to scene study, and to performances. Students will use those concepts to begin to develop the physical, vocal, and imaginative skills of the actor.

ECO 221 -- Principles of Macroeconomics -- 3 credits This course provides an analytical framework for the understanding of the economy at the national level. This course will also analyze the purpose and functions of national income accounting, the components of Gross Domestic Product, the determinants of long run economic growth, the causes and costs of inflation and unemployment. In addition, this course will cover the economic impacts of fiscal and monetary policies and the differences between short run and long run macroeconomic aspects of the economy. Finally, this course will examine the importance of the U.S. financial system, the macroeconomic effects of international trade and the determination of interest and exchange rates.

ECO 223 -- Principles of Microeconomics -- 3 credits This course develops an analytical framework for the understanding of the theory of markets, including the decision-making process in businesses, the impact of technological advances on markets and the functioning of the four different market structures. This course will also provide a closer look at the interactions of individual households, business firms and governments in the marketplace. Finally, this course will discuss economic issues related to the well-being of market participants, the tradeoffs between equity and efficiency, the economics of taxation and subsidies, the economics of healthcare, the economics of poverty and income inequality, labor market issues and the basis of free trade.

ENG 123 -- College Composition -- 3 credits This course provides a foundation in academic discourse by developing effective communication skills with an emphasis on expository writing. Students use electronic environments to write multiple essays, including a researched and documented paper; they also deliver an oral presentation.

PR: Score of 75 or better on English 11 New York State Regents exam

ENG 124 -- Introduction to Literature -- 3 credits This course encourages students to question and explore the ways in which literature, as an art form, expresses and reflects human endeavors. It introduces students to the examination of literary genres, devices, and critical theory. Students read and discuss fiction, drama, and poetry. Communication techniques studied in ENG 123 College Composition are strengthened and refined through written assignments. This is a writing-intensive course in which students will write a minimum of 15 evaluated pages. Credit will not be given for both HON 124 and ENG 124.

PR: ENG 123

ENV 100 -- Introduction to Environmental Science -- 3 credits This one-semester course introduces students to environmental concepts and issues. The course covers environmental issues and controversies from ecological, biological, social, economic, ethical and governmental policy positions. In addition, the course emphasis is placed on the tools and techniques needed to understand and analyze environmental topics such as energy, solid waste, food production, resource depletion, air and water issues and global climate change.

PR: High School Algebra or MAT 128

FRE 222 -- Intermediate French I -- 3 credits This course provides an extensive review of French grammar, and concentrates on helping students improve their vocabulary, conversational fluency and reading skills through the discussion of selected readings in French. Classroom discussions on the readings and French culture are held primarily in French. A minimum of five hours of additional work in the language lab is required per term.

PR: FRE 122

FRE 224 -- Intermediate French II --3 credits A continuation of Intermediate French I, this course completes the review of French grammar and provides more reading of French literature and non-fictional prose. Classroom discussions in French are held on the readings and on French customs and culture. A minimum of five hours of additional work in the language lab is required per term.

PR: FRE 222

HIS 227 -- American History to 1877 -- 3 credits This course introduces students to American history from the pre-Columbian period to Reconstruction. It covers political, economical, social, and cultural forces that have shaped the evolving American nation and its interactions with the world during this time.

HIS 229 -- American History Since 1877 -- 3 credits This course is a survey of American History from the end of Reconstruction to the present. Major emphasis is given to the political, economic, social and cultural forces that have contributed to the emergence and development of the American civilization during this time.

LIT 216 -- Mythology -- 3 credits This course will introduce students to selected major myths, and to representative or noteworthy minor myths, which various cultures have created in their efforts to come to terms with perceived reality. The course will also explore the belief systems which underlie those myths. The course also will enable students to recognize the continued value and relevance of myth and myth-making.

PR: ENG 123 or equivalency

MGT 123 -- Business Organization and Management -- 3 credits This introductory course gives students a broad overview of the contemporary world of business. It reviews social, economic, legal, and political forces of the global economy that influence a business manager's role and decisions. Topics covered include fundamentals of business and economics, business ethics and social responsibility, competing in global markets, forms of business ownership,

starting and growing a business, management, marketing (product, distribution, promotion, and pricing strategies), and managing technology and information.

MGT 127 -- Human Resource Management -- 3 credits This course focuses on contemporary theory and practices relating to the management of people. Topics covered include meeting human resource challenges, managing work flows, conducting job analysis, understanding equal opportunity and the legal environment, managing diversity, recruiting/selecting employees, managing separations and downsizing, managing performance, and training. In addition, the course reviews managing compensation, rewarding performance, designing and administering benefits, developing employee relations, and managing discipline.

MGT 135 -- International Business -- 3 credits This course will provide a survey of the interrelationships of world business operations; an introduction to current conceptual perspectives; cultural, educational, political and economic constraints; the international financial and trade frameworks; and the problems and challenges facing the transnational corporation.

PR: MGT 123

MKT 223 -- Marketing -- 3 credits This course emphasizes the role of marketing in organizations. Topics covered include understanding buyers and markets, strategic planning, ethics and social responsibility, e-business, business-to-business marketing, research and sales forecasting, and global marketing. In addition, the course reviews market segmentation, targeting and positioning, relationship marketing, product and service strategies, distribution, promotion, and pricing concepts/ strategies.

MAT 145 -- Mathematical Topics -- 3 credits This course is designed to acquaint the student with various areas of mathematics. Topics may include mathematical systems, groups, logic, truth tables, Euclidean and non-Euclidean geometries, probability, statistics, and modeling with linear, quadratic, exponential, and logarithmic functions.

PR: MAT 129 (Advanced Algebra) or equivalent

MAT 147 -- Statistics -- 3 credits This course focuses on the following topics: descriptive statistics, an introduction to probability, random variables and probability distributions, the binomial and normal probability distributions, sampling, estimation, hypothesis testing, chi-square distributions, linear correlation and regression.

PR: MAT 129 (Advanced Algebra) or equivalent

MAT 167 -- Precalculus With Analytic Geometry -- 3 credits This course includes the following topics: functions, inverse functions, polynomial functions, rational functions exponential and logarithmic functions, trigonometric functions, graphs, polar coordinates, analytic geometry, systems of equations, sequences, and applications.

Enrichment topics permitted.

PR: MAT 129 (Advanced Algebra) or equivalent

MAT 180 -- Calculus I -- 3 credits This course, in the calculus of a single variable, includes, but is not limited to, the following topics: limits, continuity, derivatives of algebraic functions, formulas for differentiation, implicit differentiation, related rates, the Mean Value Theorem, applications of differentiation such as curve sketching and optimization problems, antiderivatives, the definite integral, the Fundamental Theorem of Calculus, and applications of integration such as area and average value. Also included are the integration and differentiation of logarithmic, exponential, and trigonometric functions.

PR: MAT 167 or four years of high school mathematics including trigonometry and precalculus

POL 123 -- United States Government and Politics -- 3 credits This introductory course critically reviews the institutions, structures, and processes of the United States federal government. It employs historical, conceptual, and theoretical approaches in its examination of the Constitution, Federalism, the three branches of government,

bureaucracy, elections, political parties, public opinion, civil liberties and civil rights, interest groups, and the media's role in politics.

PSY 121 -- Introduction to Psychology -- 3 credits This course introduces students to the major theories and concepts in contemporary psychology. Topics covered include the approaches and research methods of psychology, the biological basis of behavior, sensation and perception, learning and memory, consciousness, motivation and emotion, intelligence, personality, social psychology, and mental illness

PSY 230 -- Child Development -- 4 credits This course is a study into the principles of child growth and development from conception to adolescence. The course content will focus on the physical, cognitive, social and emotional domains of development. The student will be required to observe the development of a child outside the classroom in order to complete a comprehensive child study project. In order to complete this major project, 10-20 hours of outside observation are required.

SOC 121 -- Sociology -- 3 credits This course introduces students to the basic patterns of social behavior and the structure and functions of social organizations. Emphasis is placed on research, culture and cultural change, socialization and deviance, population and social stratification, and social institutions.

SPA 122 -- Elementary Spanish II -- 3 credits The second half of the one-year sequence in Elementary Spanish continues the development of listening, speaking, reading, and writing skills. The course continues to provide an understanding of the civilization, culture and customs of Spanish-speaking people in multiple countries. Classroom instruction is supplemented with activities in the language lab. Students are required to complete five documented hours of lab work outside of class.

PR: SPA 121

SPA 222 -- Intermediate Spanish I -- 3 credits This course furthers the knowledge of students' language skills through review of the fundamentals of Spanish structure, and by emphasizing oral reading comprehension and self-expression in speaking and writing. The course also expands students' understanding of the civilization, culture, and customs of Spanish-speaking people. A minimum of five hours of additional work in the language laboratory is required per term.

PR: SPA 122

SPA 224 -- Intermediate Spanish II -- 3 credits This course, a continuation of Intermediate Spanish I, emphasizes the fundamentals of Spanish structure in written and oral communication. Readings give students a panoramic view of the literature and culture of Spanish-speaking people. A minimum of five hours of additional work in the language laboratory is required per term.

PR: SPA 222