



NUTLEY CAMPUS
ACICS ID # 00042557

Catalog Addendum

AAS in Electronics and Computer Technology

Associate in Applied Science Degree in Electronics and Computer Technology

18 Months, Full-Time (Day)
24 Months, Part-Time (Evening)
98 Quarter Credits

The objective of Eastwick College's Associate in Applied Science in Electronics and Computer Technology program is to prepare the student to enter the workforce in the capacity of an entry-level electronics and computer technology technician. Students will be trained to install and maintain systems and equipment that run on electronic and computer components including computers and medical, navigational, and telecommunications equipment.

Student/Graduate Eligibility for Certification Examinations

Credentialing organizations may change their requirements without notice

Certification/Registry Name	Credentialing Organization	Course Requirements
A+	Computer Technology Industry Association (CompTIA)	Successful program completion
ESA-1	International Society of Certified Electronic Technicians (ISCET)	ET101L & ET101T
ESA-2		ET102L & ET102T
ESA-3		ET201L & ET201T
ESA-4		CT202L & CT202T (A+B courses for evening students)
Fiber Optic Technician	Fiber Optic Association	

Day Program Outline

Course sequence subject to change; all terms are 12 weeks long, unless otherwise noted.

	Course Type	Course Number	Course Title	Weekly Hours			Quarter Credits
				Lecture	Lab	Practicum	
Term 1	C	ET101L	Basic Electronics Laboratory	0	4	0	2
	C	ET101T	Basic Electronics Theory	4.5	0	0	5
	F	DV011	Math and English Skills	0	2	0	0
	F	FS01	Freshman Seminar	1	0	0	0
	GE	E101	English Composition I	4.5	0	0	5
	GE	MATH101	College Math	4.5	0	0	5
							17
Term 2	C	CT101L	PC Technology I Laboratory	0	8	0	4
	C	CT101T	PC Technology I Theory	4.5	0	0	5
	C	ET102L	Electronics I Laboratory	0	4	0	2
	C	ET102T	Electronics I Theory	4	0	0	4
	F	FS02	Advanced Seminar	1	0	0	0
							15
Term 3	C	CT201L	PC Technology II Laboratory	0	8	0	4
	C	CT201T	PC Technology II Theory	4.5	0	0	5
	C	ET201L	Electronics II Laboratory	0	4	0	2
	C	ET201T	Electronics II Theory	4	0	0	4
							15
Term 4	C	CT111	Certification Review I	3.5	0	0	0
	C	CT202L	Networking and Fiberoptics Laboratory	0	8	0	4
	C	CT202T	Networking and Fiberoptics Theory	4	0	0	4
	C	ET202L	Digital Technology Laboratory	0	4	0	2
	C	ET202T	Digital Technology Theory	4	0	0	4
	GE	MATH102	College Algebra	4.5	0	0	5
							19
Term 5	C	CT204L	Computer Networking and Server Laboratory	0	3	0	1
	C	CT204T	Computer Networking and Server Theory	2	0	0	2
	GE	COM101	Foundation of Communications	4.5	0	0	5
	GE	PHYS101	Conceptual Physics	4	2	0	6
	GE	SOC100	Cultural Diversity	4.5	0	0	5
							19

AAS in Electronics and Computer Technology Day Program Outline (Continued)

Course sequence subject to change; all terms are 12 weeks long, unless otherwise noted.

	Course Type	Course Number	Course Title	Weekly Hours			Quarter Credits
Term 6	C	CT205L	Computer Security Laboratory	0	8	0	4
	C	CT205T	Computer Security Theory	4	0	0	4
	C	ET203L	Communication Electronics/Mobile Technology Laboratory	0	3	0	1
	C	ET203T	Communication Electronics/Mobile Technology Theory	3	0	0	3
	F	CT211	Certification Review II	3.5	0	0	0
	F	PD100	Professional Development	1	0	0	1
Program Total							98

Evening Program Outline

Course sequence subject to change; all terms are 12 weeks long, unless otherwise noted.

	Course Type	Course Number	Course Title	Weekly Hours			Quarter Credits
				Lecture	Lab	Practicum	
Term 1	C	ET101L	Basic Electronics Laboratory	0	4	0	2
	C	ET101T	Basic Electronics Theory	4.5	0	0	5
	F	DV011	Math and English Skills	0	2	0	0
	F	FS01	Freshman Seminar	1	0	0	0
	GE	MATH101	College Math	4.5	0	0	5
							12
Term 2	C	ET102L	Electronics I Laboratory	0	4	0	2
	C	ET102T	Electronics I Theory	4	0	0	4
	F	FS02	Advanced Seminar	1	0	0	0
	GE	E101	English Composition I	4.5	0	0	5
	GE	MATH102	College Algebra	4.5	0	0	5
							16
Term 3	C	ET201L	Electronics II Laboratory	0	4	0	2
	C	ET201T	Electronics II Theory	4	0	0	4
	GE	COM101	Foundation of Communications	4.5	0	0	5
	GE	PHYS101	Conceptual Physics	4	2	0	6
							17
Term 4	C	CT101L	PC Technology I Laboratory	0	8	0	4
	C	CT101T	PC Technology I Theory	4.5	0	0	5
	C	ET202L-A	Digital Technology Laboratory A	0	2	0	1
	C	ET202T-A	Digital Technology Theory A	2	0	0	2
							12
Term 5	C	CT201L	PC Technology II Laboratory	0	8	0	4
	C	CT201T	PC Technology II Theory	4.5	0	0	5
	C	ET202L-B	Digital Technology Laboratory B	0	2	0	1
	C	ET202T-B	Digital Technology Theory B	2	0	0	2
							12
Term 6	C	CT202L	Networking and Fiberoptics Laboratory	0	8	0	4
	C	CT202T	Networking and Fiberoptics Theory	4	0	0	4
	GE	SOC100	Cultural Diversity	4.5	0	0	5
							13

AAS in Electronics and Computer Technology
Evening Program Outline (Continued)

Course sequence subject to change; all terms are 12 weeks long, unless otherwise noted.

	Course Type	Course Number	Course Title	Weekly Hours			Quarter Credits
Term 7	C	CT204L	Computer Networking and Server Laboratory	0	3	0	1
	C	CT204T	Computer Networking and Server Theory	2	0	0	2
	C	ET203L	Communication Electronics/Mobile Technology Laboratory	0	3	0	1
	C	ET203T	Communication Electronics/Mobile Technology Theory	3	0	0	3
	F	CT111	Certification Review I	3.5	0	0	0
							7
Term 8	C	CT205L	Computer Security Laboratory	0	8	0	4
	C	CT205T	Computer Security Theory	4	0	0	4
	C	CT211	Certification Review II	3.5	0	0	0
	F	PD100	Professional Development	1	0	0	1
							9
Program Total							98

COURSE DESCRIPTIONS

The following is an overview of all courses offered by Eastwick College. Content is periodically updated to maintain its currency and meet program objectives. Courses are delivered in 12 weeks unless otherwise noted. Pre- and corequisites, if any, are included in the course descriptions.

The course numbering system is organized as follows:

<i>Letters</i>	<i>Content Area</i>
BIO	Basic sciences
BLS	Cardiopulmonary resuscitation and first aid
BUS	Business
CCA, COP, T	Computer science
CT	Computer technology
E	English
ET	Electronics
F	Freshman seminar
HIT	Health information technology
MATH	Mathematics
M	Medical assisting/health science and medical terminology
MA	Legacy HoHoKus Hackensack medical courses
N	Nursing
PHA	Pharmacology
PSYCH	Psychology
SOC	Sociology

<i>Numbers</i>	<i>Level</i>
0xx	Developmental
1xx	Introductory
2xx	Advanced

COM101 Foundations of Communications
 4.5h lecture/week
 13.5h/term preparation time
 5 quarter credits

This course introduces students to fundamental aspects of communication, including theory, perception, verbal and nonverbal communication, and listening. These principles are applied to communication with individuals, small groups, and the public. Outside preparation activities include completion of assignments and preparing for oral presentations.

CT101L PC Technology I Laboratory
 8h lab/week
 24h/term outside preparation time
 4 quarter credits
 Prerequisites: ET101T, ETI01L

Laboratory projects associated with CT101T are presented to confirm and reinforce theory. In this course, students will assemble a computer system with emphasis on installing memory, microprocessors and their programming, drives, as well as I/O devices and other peripherals. Outside preparation includes reviewing notes and assigned readings.

CT101T PC Technology I Theory
4.5h lecture/week
13.5h/term outside preparation time
5 quarter credits
Prerequisites: ET101T, ET101L

This course introduces students to computer system architecture. Microprocessor programming, power supplies, random-access memory, read-only memory, basic input/output software, CMOS, motherboards, video cards, sound cards, removable media, and storage devices will be examined. Students will gain the experience needed to build, set up, configure and repair PCs. Outside preparation includes reviewing notes, answering chapter exercises, studying for exams and assigned readings.

CT111 Certification Review I
3.5h lecture/week
10.5h/term outside preparation time
0 quarter credits
Prerequisites: CT101T, CT101L, CT201T, CT201L, CT202T, CT202L.

The student will review computer courses from CT101 through CT202 in preparation for CompTia A+ certification examinations. Outside class preparation includes reviewing notes and studying for exams.

CT201L PC Technology II Laboratory
8h lab/week
24h/term outside preparation time
4 quarter credits
Prerequisites: ET101T, ET101L

Laboratory Projects associated with CT201T are presented to confirm and reinforce theory. In this course students will learn integrity, assertiveness, and customer service as an IT technician. Lab experiments will include installation of program applications, operating system software, local area networks, and the Internet. Lab assignments incorporate command line interface, portable computing, printers, security, back-ups and troubleshooting methodology. Outside preparation includes reviewing notes and assigned readings.

CT201T PC Technology II Theory
4.5h lecture/week
13.5h/term outside preparation time
5 quarter credits
Prerequisites: ET101T, ET101L

This course includes an introduction to operating system software, local area networks, application software, and the Internet. Topics include command line interface, portable computing, printers, security, back-ups and troubleshooting methodology. Outside preparation includes reviewing notes, answering chapter exercises, studying for exams and assigned readings.

CT202L Networking and Fiber Optics Laboratory
8h lab/week
24h/term outside preparation time
4 quarter credits
Prerequisites: ET101T, ET101L

Laboratory projects associated with CT202T are presented to confirm and reinforce theory. This course includes extensive hands-on application in basic network architecture, including hardware concepts, wireless networking and network operating systems. Students will utilize topologies, ethernet cabling and basic client/server systems. Students will work with cabling, routers, switches, impact and crimping tools, and patch panels. This course also introduces hands on experience with the architecture of WAN, wired and wireless LAN while implementing networks with various hardware and software tools. Lab assignments in fiber optics include fusion splicing. Upon completion, students are eligible to sit for the FOA Certified Fiber Optics Technician (CFOT) examination. Outside preparation includes reviewing notes and assigned readings.

CT202T Networking and Fiber Optics Theory
4h lecture/week
12h/term outside preparation time
4 quarter credits
Prerequisites: ET101T, ET101L

This course provides the students with an introduction to basic network architecture, including hardware concepts, wireless networking and network operating systems. Additional topics include topologies, Ethernet cabling, network interface cards (NICs), protocols, and client/server system basics. Students will work with cabling, routers, switches, impact and crimping tools, and patch panels. This course also introduces the architecture of WAN, wired and wireless LAN. The course topics will examine network equipment and network topologies, setup client/server and web/DNS server, and implement networks with various hardware and software tools. Instruction on fiber optics is also included. Upon completion of the course, student will be eligible to sit for FOA Certified Fiber Optics Technician (CFOT) examination. Outside preparation includes reviewing notes, answering chapter exercises, studying for exams and assigned readings.

CT204L Computer Networking and Server Laboratory
3h lab/week
9h outside preparation time
1 quarter credit
Prerequisites: ET101T, ET101L

Laboratory projects associated with CT203T are presented to confirm and reinforce theory. Lab assignments for this course include learning how to plan, install, and configure Windows Server. Students also learn through hands on activities how to configure key services, such as file and folder services, printing, data storage, network services, and remote access. Experiments in remote connections, advanced network devices, such as router and firewall will be completed. Outside preparation includes reviewing notes, and assigned readings.

CT204T Computer Networking and Server Theory
2h lecture/week
6h outside preparation time
2 quarter credits
Prerequisites: ET101T, ET101L

The students will be introduced to Windows Server and will learn to plan, install and configure Windows Server. Students also learn about Active Directory, how to configure key services, such as file and folder services, printing, data storage, network services, and remote access. Also included are remote connections, advanced network devices, such as routers and firewalls. Outside preparation includes reviewing notes, answering chapter exercises, studying for exams and assigned readings.

CT205L Computer Security Laboratory
8h lab/week
24 outside preparation time
4 quarter credits
Prerequisites: ET101T, ET101L

Laboratory Projects associated with CT204T are presented to confirm and reinforce theory. Students will experience how to utilize and implement/test contingency and backup and restore plans. Students will also monitor, report and resolve security problems. Identity and assessment of current and anticipated security risks and vulnerabilities will also be examined. Students will also monitor, evaluate and test security conditions and environment, as well as apply technology to task and understand overall intent and proper procedures for setup and operation of equipment. Students will maintain and troubleshoot equipment, as well as prevent, identify, or solve problems with equipment, including computers and other technologies. Outside preparation includes reviewing notes, and assigned readings.

CT205T Computer Security Theory
4h lecture/week
12h outside preparation time
4 quarter credits
Prerequisites: ET101T, ET101L

In this course students will learn to identify the fundamental concepts of computer security. Essential knowledge in security concepts for computers, networks, and internet, security infrastructure, standards and protocols are examined. Students also learn how to protect wired and wireless network from different attacks. Students will examine the security for various internet applications, such as emails, instant messaging, and web browsing. The course includes policy and management for security and risk. Outside preparation includes reviewing notes, answering chapter exercises, studying for exams, writing a report, and assigned readings.

CT211 Certification Review II
3.5h lecture/week
10.5h outside preparation time
0 quarter credits
Prerequisites: CT202T, CT202L, CT203T, CT203L, CT204T, CT204L.

The students will review computer courses from CT202 through CT204 in preparation for CompTia Network+ and CompTia Security+ certification examinations. Outside preparation includes reviewing notes, and studying for exams.

DV011 Math and English Skills
2h lab/week
6h/term preparation time
0 quarter credits

This course is designed as a self-directed, computer-based refresher course in the areas of math, English grammar and writing, reading comprehension, and study skills. Students can work at their own pace to practice and master different areas of study. Outside preparation includes take home assignments.

E101 English Composition I
4.5h lecture/week
13.5h/term preparation time
5 quarter credits

This course is designed to teach students structural relationships in order to assure accuracy and correctness in written expression. Students produce a variety of essays and written communications, including those related to professional careers. Correct grammar, usage, and mechanics are emphasized. Students learn to use the fundamentals of research and the basic techniques of APA documentation. Outside preparation time includes writing paragraphs, short essays, and opinion papers.

ET101L Basic Electronics Laboratory
4h lab/week
12h/term outside preparation time
2 quarter credits

Laboratory projects associated with ET101T are presented to confirm and reinforce theory concepts. This course will include projects which emphasize the foundation of Direct Current (DC) devices and circuits. Students will study the fundamentals of electricity, Ohm's Law, Kirchhoff's Laws, series, parallel and series-parallel circuits as they pertain to resistors, capacitors and inductors. Upon completion of this course, students will be eligible to sit for the IS CET Electronics Systems Associate Part I certification exam (ESA-1). Outside preparation includes reviewing notes and assigned readings.

ET101T Basic Electronics Theory
4.5h lecture/week
13.5h/term outside preparation time
5 quarter credits

This course provides a foundation of Direct Current (DC) devices and circuits. Students will study the fundamentals of electricity, Ohm's Law, Kirchhoff's Laws, series, parallel and series-parallel circuits as they pertain to resistors, capacitors and inductors. Upon completion of this course, students will be eligible to sit for the ISCET Electronics Systems Associate Part I certification exam (ESA-1). Outside preparation includes reviewing notes, answering chapter exercises, studying for exams, and assigned readings.

ET102L Electronics I Laboratory
4h lab/week
12h/term outside preparation time
2 quarter credits
Prerequisites: ET101T, ET101L

Laboratory projects associated with ET102T are presented to confirm and reinforce theory concepts. This course will emphasize projects which present a foundation of Alternating Current (AC) devices and circuits. Students will study the fundamentals of resistors, capacitors and inductors as they pertain to AC circuits. Students are introduced to inductive and capacitive reactance and its effect in AC conditions. Upon completion of this course students will be eligible to sit for the ISCET Electronics Systems Associate Part II certification exam (ESA-2). Outside preparation includes reviewing notes, and assigned readings.

ET102T Electronics I Theory
4h lecture/week
12h/term outside preparation time
4 quarter credits
Prerequisites: ET101T, ET101L

This course will provide a foundation of Alternating Current (AC) devices and circuits. Students will study the fundamentals of resistors, capacitors and inductors as they pertain to AC circuits. Students are introduced to inductive and capacitive reactance and its effect in AC conditions. Upon completion of this course students will be eligible to sit for the ISCET Electronics Systems Associate Part II certification exam (ESA-2). Outside preparation includes reviewing notes, answering chapter exercises, studying for exams, and assigned readings.

ET201L Electronics II Laboratory
4h lab/week
12h/term outside preparation time
2 quarter credits
Prerequisites: ET101T, ET101L

Laboratory projects associated with ET201 are presented to confirm and reinforce theory concepts. The experiments are designed to give the student practical experience in working with semiconductors and associated circuits. Students are introduced to circuits that include diodes and various diode configurations, building and analyzing semiconductor devices, characteristics and biasing of diodes and transistors. Students learn the design and analysis of circuits using diodes, bipolar transistors, and field effect transistors as well as application of transistors as amplifiers and switches. Students will be taught to effectively use the bread board, multi-meter, and oscilloscope. Upon completion of this course, students will be eligible to sit for the ISCET Electronics Systems Associate Part III certification exam (ESA-3). Outside preparation includes reviewing notes, and assigned readings.

ET201T Electronics II Theory
4h lecture/week
12h/term outside preparation time
4 quarter credits
Prerequisites: ET101T, ET101L

This course is a comprehensive study of solid-state principles and circuits. A brief overview of the history of

electronics, as well as the basic principles of conductance and semi-conductance, will be studied using atomic structure theory. Students are introduced to the combining of polarized semiconductor materials forming diodes and transistors. Topics also covered are diode and transistor biasing, amplifier configurations and classes utilizing the BJT, FET and MOSFET devices. Students will learn the fundamentals of linear IC's including op amps, timers, level shifters and detectors. Concepts of basic power supplies, amplifiers and oscillator circuits are also studied. Upon completion of this course, students will be eligible to sit for the ISCET Electronics Systems Associate Part III certification exam (ESA-3). Outside preparation includes reviewing notes, answering chapter exercises, studying for exams, writing a report and assigned readings.

ET202L Digital Technology Laboratory
4h lab/week
12h/term outside preparation time
2 quarter credits
Prerequisites: ET101T, ET101L

Laboratory projects associated with ET202T are presented to confirm and reinforce theory concepts. Laboratory assignments are focused on Transistor-Transistor -Logic (TTL) circuits such as gates, encoders, decoders, flip-flops, counters, registers, multiplexers, demultiplexers, basic arithmetic units and digital integrated circuits. Students learn circuit analysis and troubleshooting techniques, construct circuits and conduct experiments. Students will construct and test circuits using both analog and digital concepts which will provide them with a solid foundation in today's consumer and industrial electronics. Upon completion of this course, students will be eligible to sit for the ISCET Electronics Systems Associate Part IV certification exam (ESA-4). Outside preparation includes reviewing notes, studying for exams and assigned readings.

ET202L-A Digital Technology Laboratory A
2h lab/week
6h/term outside preparation time
1 quarter credits
Prerequisites: ET101T, ET101L

Laboratory projects associated with ET202T-A are presented to confirm and reinforce theory concepts. Laboratory assignments are focused on Transistor-Transistor -Logic (TTL) circuits such as gates, encoders, decoders, and digital integrated circuits. Students learn circuit analysis and troubleshooting techniques, construct circuits and conduct experiments. Students will construct and test circuits using both analog and digital concepts which will provide them with a solid foundation in today's consumer and industrial electronics. Outside preparation includes reviewing notes, studying for exams and assigned readings.

ET202L-B Digital Technology Laboratory B
2h lab/week
6h/term outside preparation time
1 quarter credits
Prerequisites: ET101T, ET101L

Laboratory projects associated with ET202T-B are presented to confirm and reinforce theory concepts. Laboratory assignments are focused on Transistor-Transistor -Logic (TTL) circuits such as flip-flops, counters, registers, multiplexers, demultiplexers, basic arithmetic units and digital integrated circuits. Students learn circuit analysis and troubleshooting techniques, construct circuits and conduct experiments. Students will construct and test circuits using both analog and digital concepts which will provide them with a solid foundation in today's consumer and industrial electronics. Upon completion of this course, students will be eligible to sit for the ISCET Electronics Systems Associate Part IV certification exam (ESA-4). Outside preparation includes reviewing notes, studying for exams and assigned readings.

ET202T Digital Technology Theory
4h lecture/week
12h/term outside preparation time
4 quarter credits
Prerequisites: ET101T, ET101L

This course is designed to explain the fundamentals of digital electronics. Students learn logic gates, encoders, decoders, flip flops, counters, registers, multiplexers, binary arithmetic, and analysis of integrated circuits. Further study is continued in circuit analysis and troubleshooting techniques. Digital circuits discussed in lecture are constructed on the PAD trainer for further analysis. Upon completion of this course, students will be eligible to sit for the ISCET Electronics Systems Associate Part IV certification exam (ESA-4). Outside preparation includes reviewing notes, answering chapter exercises, studying for exams, writing a report and assigned readings.

ET202T-A Digital Technology Theory A
2h lecture/week
6h/term outside preparation time
2 quarter credits
Prerequisites: ET101T, ET101L

This course is designed to explain the fundamentals of digital electronics. Students learn logic gates, encoders, decoders, and analysis of integrated circuits. Digital circuits discussed in lecture are constructed on the PAD trainer for further analysis. Outside preparation includes reviewing notes, answering chapter exercises, studying for exams, writing a report and assigned readings.

ET202T-B Digital Technology Theory B
2h lecture/week
6h/term outside preparation time
2 quarter credits
Prerequisites: ET101T, ET101L

This course is designed to explain the fundamentals of digital electronics. Students learn flip flops, counters, registers, multiplexers, binary arithmetic, and analysis of integrated circuits. Students learn circuit analysis and troubleshooting techniques. Digital circuits discussed in lecture are constructed on the PAD trainer for further analysis. Upon completion of this course, students will be eligible to sit for the ISCET Electronics Systems Associate Part IV certification exam (ESA-4). Outside preparation includes reviewing notes, answering chapter exercises, studying for exams, writing a report and assigned readings.

ET203L Communication Electronics/Mobile Technology Laboratory
3h lab/week
9h/term outside preparation time
1 quarter credit
Prerequisites: ET101T, ET101L

Laboratory projects associated with ET203T are presented to confirm and reinforce theory concepts. This course provides an introduction to the technologies available for communication electronic and mobile devices. In this lab, students will have hands-on experience in building communication system circuits. After the completion of the course, the students will be able to manage the hardware and measurements of various systems. Students will build AM and FM receivers, binary data communication systems, transmission lines and antennas. The students will have knowledge of cell phone technology and wireless technology used in mobile communication. Students will learn to measure input and output signals and troubleshoot communication devices. Students will be introduced to a wide range of special test equipment used in electronic and mobile communication. Outside preparation includes reviewing notes, and assigned readings.

ET203T Communication Electronics/Mobile Technology Theory
3h lecture/week
9h/term outside preparation time
3 quarter credits
Prerequisites: ET101T, ET101L

This course introduces students to the principles of electronic communication systems. The students will learn the fundamentals of AM and FM receivers, binary data communication, as well as the principles of transmission lines and antennas. In addition, students will study mobile technology, cellular phone technology and other telecommunication systems. Troubleshooting techniques will be applied to a wide range of special test equipment used in electronic communication. Outside preparation includes reviewing notes, answering chapter exercises, studying for exams, writing a report and assigned readings.

FS01 Freshman Seminar
1h lecture/week
3h/term preparation time
0 quarter credits

This course is designed to help freshman level students become successful learners. Reading texts, listening in class, and taking lecture notes are emphasized. The human relations component of this course is designed to help students learn to succeed on the job by emphasizing social skills, and the personal characteristics and habits necessary for workplace success. Outside preparation includes reviewing of class notes and take home assignments.

FS02 Advanced Seminar
1h lecture/week
3h/term preparation time
0 quarter credits
Prerequisite: FS01

This course is designed for continuing students in learning communities. Emphasis is placed on expanding critical thinking skills, enhancing awareness of ethical issues, refining communication styles, managing health and money, and making a successful transition from college life to professional life. Outside preparation includes reviewing of class notes and take-home assignments.

MATH101 College Math
4.5h lecture/week
13.5h/term preparation time
5 quarter credits

This course covers fundamental operations on real number system, logics, sets, equations, functions and their graphs, probability, statistics, fractions, fixed numbers and decimals, rations, percentages, and data analysis. Students will solve both routine and non-routine problems to demonstrate their knowledge of underlying concepts. Mathematics vocabulary, symbols and notation will be emphasized. Outside preparation includes completion of end-of-chapter assignments and study guides; and completion of a research paper on a topic to be approved by the instructor.

MATH102 College Algebra
4.5h lecture/week
13.5h/term preparation time
5 quarter credits
Prerequisites: MATH101

This course covers fundamental operations of algebra. Topics include signed numbers, variables, literal equations and formulas, square roots, exponents, polynomials, linear and quadratic equations and rational expressions. This course will also cover the fundamental operations of trigonometry. Outside preparation includes completion of end-of-chapter assignments and study guides for exam review.

PD100 Professional Development
1h lecture/week
3h/term preparation time
1 quarter credit

In this course, students learn interviewing techniques, resume planning, and proper attire for the job interview. Students work closely with the director of career development. Interviewing techniques, resume planning, and proper attire for the job interview are discussed. Outside preparation includes compilation of employment portfolio, including letter of application, resume, and follow-up letter.

PHYS101 Conceptual Physics
4h lecture, 2h lab/week
18h/term preparation time
6 quarter credits

This course provides the student with basic concepts in physics. The course will also include an overview of the basic mathematical concepts needed for Physics formulae covered in the course. The course will cover a series of topics; Newton's Laws of Motion, mechanical energy, work and power, heat and heat transfer, electricity and magnetism, light, sound, atomic structure, radioactivity and relativity. Outside preparation includes completion of end-of-chapter exercises for class discussion and research and writing for assigned term paper.

SOC100 Cultural Diversity
4.5h/week
13.5h/term preparation time
5 quarter credits

This course is designed to expand the student's awareness of both the cognitive knowledge and skill necessary to effectively interact with and/or serve culturally diverse populations. This course will particularly emphasize attitudes and competencies that are important in effective professional relationships. The course will not be exhaustive in its discussion of diverse populations, but will focus on those whose diversity is cultural and who are more likely to be encountered by the students taking the course. Students will be asked to write a term paper based on a list of suggested topics to provide an independent in-depth study of an issue or culture. Students will be expected to be consistently involved in discussions, learning projects, writings, and media related to that culture. Outside preparation includes completion of a research paper, case studies and as assigned, homework and study guides for exam review.