Academic Programs

Registered Programs

The programs offered are registered by the State Education Department and State University of New York. Enrollment in other than a registered program may jeopardize a student's eligibility for financial aid.*

Registered Programs	Award	Hegis #	Page #
Accounting	AS	5002	64-65
Accounting	AAS	5002	66-67
Accounting Procedures	Cert.	5002	68-69
Architectural Technology	AAS	5317	70-71
Business Administration	AS	5004	72-73
Business Management	AAS	5004	74-75
Clerical Office Assistant	Cert.	5005	76-77
Computer Information Technology (CIT)–Networking	AAS	5101	78-79
Computer Science	AS	5101	80-81
Criminal Justice	AS	5505	82-83
Criminal Justice-Police	AAS	5505	84-85
Cyber Security	AAS	5199	86-87
Dental Hygiene	AAS	5203	88-89
Early Childhood Development & Care	AAS	5503	90-91
Early Childhood Development & Care	Cert.	5003	92-93
Engineering Science	AS	5609	94-95
Exercise Studies	AS	5299.30	96-97
Fire Protection Technology	AAS	5507	98-99
Green Building Maintenance and Management	AAS	5317.00	100-101
Honors Program			102-103
Human Services	AS	5501	104-105
International Studies	AA	5622	106-107
Jointly Registered Teacher Education Program (JRTEP)	AA/AS	5649	108-113
Law Enforcement/Security	Cert.	5505	114-115
Liberal Arts: Humanities & Social Science	AA	5649	116-117
Liberal Arts: Individual Studies	AS	5699	118-119
Liberal Arts & Sciences/Mathematics & Natural Science	AS	5649	120-121
Marketing	AAS	5004	122-123
Medical Laboratory Technician	AAS	5205	124-125
Medical Office Assistant	AAS	5005	126-127
New Media	AAS	5012	128-129
Nursing	AAS	5208.10	130-133
Occupational Therapy Assistant	AAS	5210	134-135
Office Technologies	AAS	5005	136-137
Performing Arts: Music	AAS	5610	138-139
Physical Therapist Assistant	AAS	5219	140-141
Public Health	AS	5299	142-143
Radiologic Technology	AAS	5207	144-145
Teaching Assistant	Cert.	5101	146-147
Visual Communications Technology: Graphic Arts/Printing	AAS	0590	148-149
SUNY General Education Course Listing			150-151
Guide for Social Science Requirement			152
Non-SUNY Elective Categories			153

This page intentionally left blank

Associate Degrees

Orange County Community College operates under the supervision of the State University of New York and is authorized by the Board of Regents of the University of the State of New York to award three degrees—the Associate in Arts (A.A.), the Associate in Science (A.S.), and the Associate in Applied Science (A.A.S.).

The Associate in Arts and the Associate in Science degrees are designed for students who intend to transfer to four-year colleges or universities. The Associate in Applied Science degree is awarded in professional/technical fields and is designed to prepare the graduate for the demands of the world of work.

One-Year Certificate Programs

Orange County Community College also offers a number of one-year certificate programs. They are designed to develop job-entry skills at the collegiate level.

General Degree Requirements

The following academic standards apply to all first degrees:

- 6 credits of Freshman English
- Achievement of at least an overall "C" average (CGPA of 2.00)
- 30 of the total number of required credits must be taken at SUNY Orange
- For all A.A.S. degree programs, students are also required to achieve at least an overall "C" average (CGPA of 2.00) in their professional/technical major

Each of the degrees must meet the minimum requirements as set forth by New York State Education Law. These include at least 60 credit hours of study of which 45 credits must be in the liberal arts for the A.A. degree, 30 credits for the A.S. degree and 20 credits for the A.A.S.

As of the Spring 2011 semester, students enrolled in the Business Management, Criminal Justice, Criminal Justice–Police, Human Services, Liberal Arts: Humanities and Social Science, Liberal Arts: Individual Studies and Nursing degree programs on the Newburgh campus can complete all of their degree requirements at that campus. Students enrolled in the College's remaining degree programs may take courses in Newburgh but must also complete a portion of their degree requirements at the Middletown campus.

Students may complete no more than 30 of their credits online, unless they are enrolled in one of the following programs (since the college is approved by SUNY to offer these programs in distance learning format):

- Accounting A.S.
- Accounting A.A.S.
- Accounting Procedures Certificate
- Business Administration A.S.
- Business Management A.A.S.
- Clerical Office Assistant Certificate
- Marketing A.A.S.
- Medical Office Assistant A.A.S.
- New Media A.A.S.
- Office Technologies A.A.S.: Legal Office Assistant
- Office Technologies A.A.S.: Office Management
- Office Technologies A.A.S.: Secretarial/Word Processing
- Public Health A.S.

The degree earned depends upon the educational and career goals of the individual. Each of the degrees offered at SUNY Orange is listed by degree title on the pages that follow with a description of the purpose, goals and specific course requirements.

Accounting

Degree Awarded: Associate in Science

Accredited by the Accreditation Council for Business Schools and Programs (ACBSP)
7007 College Boulevard, Suite 420, Overland Park, KS, 66211

Recommended Course Sequence

First Semester	Credits
ENG 101 Freshman English 1	3
MAT ___ Selected Math Course**	3
OFT 106 Keyboarding***	1
BUS 161 Computer Applications for Business	3
ACC 153 Financial Accounting	4
_____ Restricted SUNY Elective*	3
Second Semester	
ENG 102 Freshman English 2	3
MAT ___ Selected Math Course**	3
ECO 201 Macro-Economics	3
ACC 154 Managerial Accounting	4
MKT 101 Marketing *or* MGT 201 Principles of Management	3
Third Semester	
ECO 202 Micro-Economics	3
_____ SUNY Natural Science (GE 2)	3
BUS 205 Business Statistics *or* ACC 205 Accounting w/ Micro. Appl.	3
BUS 201 Business Law 1	3
ACC 201 Intermediate Accounting 1	4
Fourth Semester	
_____ Restricted SUNY Elective*	3
BUS 203 Business Communications	3
BUS 202 Business Law 2	3
ACC 202 Intermediate Accounting 2	4
ACC 220 Accounting Internship+	3

Total Credits: 62

* *Select from three different SUNY lists; do not duplicate: American History (GE 4), Western Civilization (GE 5), Other/World Civilization (GE 6), Arts (GE 8), Foreign Language (GE 9).*
** *Select one of the following pairs:*
  (MAT 121 and MAT 122) (MAT 122 and MAT 205) (MAT 131 and MAT 205) (MAT 205 and MAT 206)
*** *Students with sufficient keyboarding ability who pass the keyboarding waiver exam will fulfill this requirement; they do not need to replace the 1 credit.*
\+ *This course is an **additional, optional course** and does not replace any other course in this program.*

Program Description

The Associate in Science degree program in Accounting prepares graduates to continue their education in accounting or finance at a four-year college or university.

Sudents learn the accounting cycle including preparation of financial statements in accordance with GAAP. Special projects teach analytical skills through finding, extracting and evaluating financial information to make sound decisions. Students use Excel extensively to solve a variety of accounting problems. The Financial Accounting Research System (FARS) database is introduced so that students can learn to research complex accounting issues, thus preparing them for both the CPA exam and professional practice as an accountant. Students may also complete an internship course which gives them the opportunity to build their resume and earn college credits.

Students entering the workforce after completing a baccalaureate degree in accounting benefit from a strong demand for accountants. Employment opportunities include positions in public accounting firms, private and public companies, government and not-for-profit agencies. Most will achieve the professional Certified Public Accountant (CPA) designation and many pursue graduate degrees.

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

This degree has been approved by ACBSP and SUNY NYS Education Department for online distance learning delivery. This does not mean that SUNY Orange offers every course in the program online; however, many are offered in this format. Please check the current credit course schedule for online DL virtual course listings offered each semester.

Degree Awarded: Associate in Science

Program Learning Outcomes

Students will:

- demonstrate knowledge of the accounting cycle, including preparation of financial statements in accordance with Generally Accepted Accounting Principles (GAAP).

- demonstrate analytical skills through finding, extracting and evaluating financial information to make sound business decisions.

- create and edit Excel spreadsheets to solve various accounting problems.

- explain the purpose and responsibilities of the professional accountant in the business community.

- express business information effectively in both oral and written form.

- learn critical thinking skills through an analytical business report project.

Career Opportunities

- CPA (certified public accountant)
- CMA (certified management accountant)
- financial analyst
- financial planner

Transfer Opportunities

SUNY Orange has special relationships with upper-level colleges and universities for transfer.

These transfer institutions include:

- Franklin University
- Marist College
- Mercy College
- Mount St. Mary College
- Pace University
- Ramapo College
- SUNY Albany
- SUNY Cortland
- SUNY Empire State College
- SUNY Institute of Technology
- SUNY New Paltz

Contact Information

Business Department Chair
341-4411
Admissions Office
(845) 341-4030

Accounting

Degree Awarded: Associate in Applied Science

Accredited by the Accreditation Council for Business Schools and Programs (ACBSP)
7007 College Boulevard, Suite 420, Overland Park, KS, 66211

Recommended Course Sequence

First Semester	Credits
ENG 101 Freshman English 1	3
MAT ___ Mathematics	3
OFT 106 Keyboarding*	1
BUS 161 Computer Applications for Business	3
ACC 101 Accounting Principles 1	4
BUS 103 Introduction to Business	3

Second Semester	
ENG 102 Freshman English 2	3
_____ Social Science Elective	3
MAT ___ Mathematics	3
BUS 101 Business Math	3
ACC 102 Accounting Principles 2	4

Third Semester	
BUS 201 Business Law 1	3
_____ Social Science Elective	3
ACC 211 Income Tax Procedures	3
ACC 205 Accounting with Microcomputer Applications	3
BUS 105 Business & Society	3

Fourth Semester	
BUS 203 Business Communications	3
BUS 202 Business Law 2	3
ACC 214 Accounting Practice**	4
ACC 111 Personal Finance *or*	
ACC 220 Accounting Internship	3
_____ Liberal Arts Elective	3

Total Credits: 64

* *Students with sufficient keyboarding ability who pass the keyboarding waiver exam will fulfill this requirement; they do not need to replace the 1 credit.*

** *Students must achieve a grade of C or better to graduate from this program.*

Program Description

The Associate in Applied Science degree program in Accounting prepares graduates to begin their careers assisting accountants as full-charge bookkeepers, junior accountants, accounting clerks or office managers in the private, public or government sectors.

Students take a sequence of accounting coursework including Accounting Principles 1 and 2, Income Tax Procedures, Accounting with Microcomputer Applications and Accounting Practice. With computer software, students learn to use correct accounting procedures through the accounting cycle. Special Excel spreadsheet and QuickBooks projects are provided to enhance the understanding of real world applications.

The accounting assistant provides bookkeeping capabilities to a variety of employers through such responsibilities as accounts receivable/payable, payroll, balance sheets, and income statements, billing, and bank statement reconciliation.

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

This degree has been approved by ACBSP and SUNY NYS Education Department for online distance learning delivery. This does not mean that SUNY Orange offers every course in the program online; however, many are offered in this format. Please check the current credit course schedule for online DL virtual course listings offered each semester.

Degree Awarded: Associate in Applied Science

Program Learning Outcomes

Students will:

- demonstrate knowledge of the accounting cycle, including preparation of financial statements in accordance with Generally Accepted Accounting Principles (GAAP).
- express business information effectively in both oral and written form.
- demonstrate the ability to effectively interface with an automated accounting system.
- create and edit Excel spreadsheets to solve various accounting problems.
- learn critical thinking skills through an analytical business report project.

Career Opportunities

General accounting and bookkeeping positions exist in the following fields:
- service
- education
- travel
- entertainment
- manufacturing
- insurance
- industrial
- media/advertising

Transfer Opportunities

While the A.A.S. is a degree leading to immediate employment, SUNY Orange has a special relationship for transfer to a B.S. degree in accounting with Franklin University. Other transfers agreements of courses exit with

- Mount St. Mary College
- Ramapo College
- SUNY Empire State College

Contact Information

Business Department Chair
341-4411
Admissions Office
(845) 341-4030

Accounting Procedures

Degree Awarded: Certificate

Recommended Course Sequence

		Credits
ACC 101	Accounting Principles 1	4
BUS 101	Business Math **or**	
ACC 111	Personal Finance	3
BUS 103	Introduction to Business	3
BUS 161	Computer Applications for Business	3
OFT 106	Keyboarding**	1
BUS 201	Business Law 1	3
ACC 102	Accounting Principles 2	4
BUS 105	Business and Society **or**	
BUS 203	Business Communications	3
ACC 205	Acctg. w/Microcomputer Applications	3
ACC 214	Accounting Practice*	4

Total Credits: 30-31

*   *Students must achieve a grade of C or better to graduate from this program.*
**Students with sufficient keyboarding ability who pass the keyboarding waiver exam will fulfill this requirement; they do not need to replace the 1 credit.*

Program Description

The Accounting Procedures certificate program prepares graduates to work in entry-level bookkeeping positions. Emphasis is placed on developing bookkeeping skills and knowledge of general business practices.

Students take a sequence of accounting coursework including Accounting Principles 1 and 2, Accounting with Microcomputer Applications, and Accounting Practice. Students learn the accounting cycle using both manual and computer software systems. Special Excel spreadsheet and QuickBooks projects are provided to enhance the understanding of real world applications.

Graduates can utilize their acquired skills in various entry-level positions such as bookkeepers, accounts receivable/payable clerks, and payroll clerks with responsibilities and abilities in balance sheets, income statements, billing and bank statement reconciliation.

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

Program Learning Outcomes

Students will:

- demonstrate knowledge of the accounting cycle, including preparation of financial statements in accordance with Generally Accepted Accounting Principles (GAAP).

- demonstrate the ability to effectively interface with an automated accounting system.

- create and edit Excel spreadsheets to solve various accounting problems.

- learn critical thinking skills through an analytical business project.

Career Opportunities

General accounting and bookkeeping positions exist in the following fields:
- service
- education
- travel
- entertainment
- manufacturing
- insurance
- industrial
- media/advertising

Transfer Opportunities

While the Certificate program leads to immediate job placement upon graduation, SUNY Orange has a special relationship with Franklin University for transfer to a B.S. degree in Applied Management or Accounting. In addition, all courses taken for this certificate may be applied to the A.A.S. Accounting degree program at SUNY Orange.

Contact Information

Business Department Chair
341-4411
Admissions Office
(845) 341-4030

Architectural Technology

Degree Awarded: Associate in Applied Science

Recommended Course Sequence

First Semester		Credits
ENG 101	Freshman English 1	3
MAT 107	Technical Math 1	3
CAD 101	Introduction to CAD	3
ARC 101	Architectural Graphics	3
ARC 105	Bldg Materials & Methods 1	2
ARC 111	Architectural Design 1	3
Second Semester		
ENG 102	Freshman English 2	3
CAD 102	Computer Aided Drafting 2	2
ARC 102	Advanced Arch. Graphics	3
ARC 106	Bldg Materials & Methods 2	4
ARC 112	Architectural Design 2	3
ARC 215	Architecture to the 18th Century	3
Third Semester		
_____	Social Science Elective	3
ARC 211	Architectural Design 3	3
ARC 205	Working Drawings 1	3
ARC 201	Digital Portfolio	1
ARC 216	Architecture from the 19th C	3
Fourth Semester		
_____	Social ScienceElective	3
ARC 220	Mechanical and Electrical Equip.	3
ARC 206	Working Drawings 2	4
ARC 212	Architectural Design 4	4
PHY 111	Architectural Physics	3

Total Credits: 65

Program Description

The Associate in Applied Science degree program in Architectural Technology prepares graduates to enter the workforce as architectural team members. While other opportunities exist, the largest job opportunities are positions as interns / CAD operators for architectural firms. Graduates' skills will prepare them to produce working drawings in a variety of settings, such as engineering firms or manufacturers. If graduates have field experience in a building trade, all program outcomes are directly transferable to entry-level positions in construction management and supervision. A broad cross-section of course content is covered in the program; this familiarizes students with many aspects of the architectural profession, the work of building professionals and the construction process.

When working under the supervision of a licensed professional (i.e. Registered Architect, Professional Engineer, etc.), a graduate's primary responsibilities would include measuring and documenting existing conditions of buildings and sites, preparing construction documents, interpreting construction documents, preparing design presentations for clients or other audiences, and coordinating architectural drawings with consultants' drawings.

Fluency with computer-aided drawing (AutoCAD) and computer literacy, as it applies to generating architectural drawings, are fundamental skills graduates will possess. Meanwhile, freehand sketching is stressed wherever possible as a valuable communication method. Beyond preparing construction drawings, students will build models, prepare reports and orally present their work to groups.

Most courses in the program are a combination of lecture and lab. In the lecture component, foundational material is presented, often accompanied by samples, examples or other visual cues. In the lab component, students will either work on short-term exercises designed to hone very specific knowledge bases or skills or they will work on long-term projects designed to simulate the types of projects that they will eventually encounter in the workforce. Students should be prepared to spend a significant amount of time on projects outside the classroom.

Many students who enter this degree program plan to transfer to an upper division institution. Because these opportunities exist, second year students who intend to transfer should select their courses in careful consultation with their academic advisor. Portfolio production will be required.

For those students wishing to become Registered Architects, New York State Department of Education guidelines must be followed. To become a Registered Architect, one must earn an NAAB-accredited Bachelor of Architecture or Master of Architecture degree, fulfill NCARB internship requirements (a proscribed three year apprenticeship), and pass a challenging and comprehensive licensing examination.

Architectural Technology

Degree Awarded: Associate in Applied Science

For those students wishing to pursue baccalaureate degrees in Landscape Architecture and Construction Management, an A.S. degree from SUNY Orange with electives from the Architectural Technology degree program may be most suitable. Course selection should be made carefully in consultation with academic advisors.

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

Maintenance of a C average or better in courses in the major is also required.

Program Learning Outcomes

Students will:

- Graphically communicate architectural forms and building assemblies, both two and three dimensionally

- Demonstrate fluency using digital graphics software packages to produce construction drawings and other architectural representations

- Solve architectural problems through the development of an aesthetic approach and the manipulation of form and space

- Demonstrate an understanding of building materials and methods

- Demonstrate an understanding of the coordination within a building project between architecture and related professions

- Demonstrate an understanding of basic life safety and regulatory requirements in building projects

- Demonstrate an understanding of fundamental structural principles

- Utilize research from web based and other sources in architectural projects

- Identify basic methods of sustainable building practices and their environmental impacts

- Demonstrate an understanding of the historical and social context of western architecture

Career Opportunities

- architectural firms
- engineering firms
- manufacturing firms
- construction firms
- governmental agencies
- utility companies

Transfer Opportunities

While the A.A.S. degree leads to immediate employment, SUNY Orange students have successfully transferred to:

- Alfred State College
- New York Institute of Technology
- New Jersey Institute of Technology
- Pratt Institute
- SUNY Environmental Science and Forestry

Contact Information

Science,Engineering and Architecture Department Chair
(845) 341-4571
Admissions Office
(845) 341-4030

Business Administration

Degree Awarded: Associate in Science

Accredited by the Accreditation Council for Business Schools and Programs (ACBSP)
7007 College Boulevard, Suite 420, Overland Park, KS, 66211

Recommended Course Sequence

First Semester		Credits
ENG 101	Freshman English 1	3
MAT ___	Selected Math Courses*	3
OFT 106	Keyboarding***	1
BUS 161	Computer Applications for Business	3
ACC 153	Financial Accounting	4
_____	Restricted SUNY Elective**	3

Second Semester		
ENG 102	Freshman English 2	3
MAT ___	Selected Math Courses*	3
ACC 154	Managerial Accounting	4
ECO 201	Macro-Economics	3
MKT 101	Principles of Marketing	3

Third Semester		
ECO 202	Micro-Economics	3
_____	SUNY Natural Science (GE 2)	3
BUS 205	Business Statistics	3
BUS 201	Business Law 1	3
MGT 201	Principles of Management	3

Fourth Semester		
_____	Restricted SUNY Elective****	3
BUS 203	Business Communications	3
BUS 202	Business Law 2	3
BUS 207	International Business	3
MGT 205	Human Resource Management	3

Total Credits: 63

* *Select one of the following pairs of courses: MAT 121 and MAT 122 (minimum requirement); or MAT 122 and MAT 205; or MAT 131 and MAT 205, or MAT 205 and MAT 206.*
***SUNY American History (GE 4), Western Civilization (GE 5) or Other/World Civilization (GE 6) or Arts (GE 8) or Foreign Language (GE 9) lists.*
****Students with sufficient keyboarding ability who pass the keyboarding waiver exam will fulfill this requirement; they do not need to replace the 1 credit.*
*****Select from list not chosen in Second Semester Restricted SUNY Elective list above.*

Program Description

The Associate in Science degree program in Business Administration has been designed for those students who plan to transfer and continue their business education at a four-year college. This degree is designed to parallel the bachelor's degree requirements at most four-year colleges in the region. After transfer, graduates may major in areas such as: management, marketing, finance or human resource management. Students enrolled in this degree program acquire an understanding of the relationship between the liberal arts/social sciences and the management of business enterprises. The required mathematics, science and economics courses provide a solid grounding for making proper business decisions.

Because degree requirements vary at transferring institutions, majors are urged to see their business faculty advisors and contact the Admissions Office of the transfer institution. Business Department faculty are well-trained and experienced in their areas of expertise and highly motivated to work with students, helping them to succeed in their quest for transfer to a four-year college.

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

This degree has been approved by ACBSP and SUNY NYS Education Department for online distance learning delivery. This does not mean that SUNY Orange offers every course in the program online; however, many are offered in this format. Please check the current credit course schedule for online DL virtual course listings offered each semester.

Degree Awarded: Associate in Science

Program Learning Outcomes

Students will:

- understand the general nature, structure, resources and operations of business organizations.

- demonstrate the ability to explain an organization's basic accounting, finance, management, marketing and legal functions.

- express business ideas and information effectively in both oral and written forms.

Career Opportunities

- management trainee
- business owner/ entrepreneur
- finance management
- insurance planning and sales
- human resource manager

Transfer Opportunities

SUNY Orange has special relationships with upper-level colleges and universities for transfer. These transfer institutions include:

- Alfred University
- Berkley College
- Clarkson College
- Columbia University
- Fordham University
- Franklin University
- Manhattan College
- Marist College
- Marymount College
- Mount St. Mary College
- Pace University, Lubin School of Business
- Ramapo College
- St. Thomas Aquinas College
- SUNY Albany
- SUNY Empire State College
- SUNY New Paltz
- SUNY Oswego

Please note: Because degree requirements vary at transferring institutions, majors are urged to see their business faculty advisors and contact the Admissions Office of the transfer institution.

Contact Information

Business Department Chair
341-4411
Admissions Office
(845) 341-4030

Business Management

Degree Awarded: Associate in Applied Science

Accredited by the Accreditation Council for Business Schools and Programs (ACBSP)
7007 College Boulevard, Suite 420, Overland Park, KS, 66211

Recommended Course Sequence

First Semester		Credits
ENG 101	Freshman English 1	3
	Math or Liberal Arts Science	3
OFT 106	Keyboarding*	1
BUS 161	Computer Applications in Business	3
ACC 101	Accounting Principles 1	4
BUS 103	Introduction to Business	3

Second Semester		
ENG 102	Freshman English 2	3
	Math or Liberal Arts Science	3
BUS 101	Business Math	3
MKT 101	Principles of Marketing	3
ACC 102	Accounting Principles 2	4

Third Semester		
BUS 105	Business and Society	3
BUS 201	Business Law 1	3
MGT 201	Principles of Management	3
MGT 205	Human Resource Management	3
	Social Science Elective	3

Fourth Semester		
BUS 202	Business Law 2	3
BUS 203	Business Communications	3
	Social Science Elective	3
	Liberal Arts Elective	3
MGT 203	Entrepreneurship **or**	3
MGT 220	Internship: Business**	

Total Credits: 63

*Students with sufficient keyboarding ability who pass the keyboarding waiver exam will fulfill this requirement; they do not need to replace the 1 credit.
**Students need approval of the department chair to register for this course and at least a 2.5 CQPA.

> This program can be completed in its entirety at either the Middletown campus or the Newburgh campus.

Program Description

The Associate in Applied Science degree program in Business Management prepares graduates to begin their careers as management trainees, first line supervisors, and higher level management positions in either profit or non-profit organizations. Students develop interpersonal and conceptual skills such as motivation, communication, performance appraisal, decision making and problem solving. Various business tools including accounting, computer information systems and law, as well as liberal arts courses, are integrated into the program.

The primary focus of the curriculum is on entrepreneurship for those interested in operating their own business or applying this managerial approach in a medium to large organization in the public or private sector. The program's concentration of business courses provides a strong background for employment. The Business Internship is a popular feature of this degree. Students work for regional companies for academic credit and real-world experience.

Business Department faculty are well-trained and experienced in their areas of expertise, and highly motivated to work with students, helping them to succeed in their quest for a job. Many students complete this degree and transfer to four-year colleges to earn a bachelor's degree; however, students who have this objective are advised that they may suffer transfer credit losses due to the concentration of business courses.

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

> This degree has been approved by ACBSP and SUNY NYS Education Department for online distance learning delivery. This does not mean that SUNY Orange offers every course in the program online; however, many are offered in this format. Please check the current credit course schedule for online DL virtual course listings offered each semester.

Business Management

Degree Awarded: Associate in Applied Science

Program Learning Outcomes

Students will:

- integrate management theories and tools in a variety of functional areas within an organization.
- demonstrate the ability to use a variety of analytical tools in the functional areas of business.
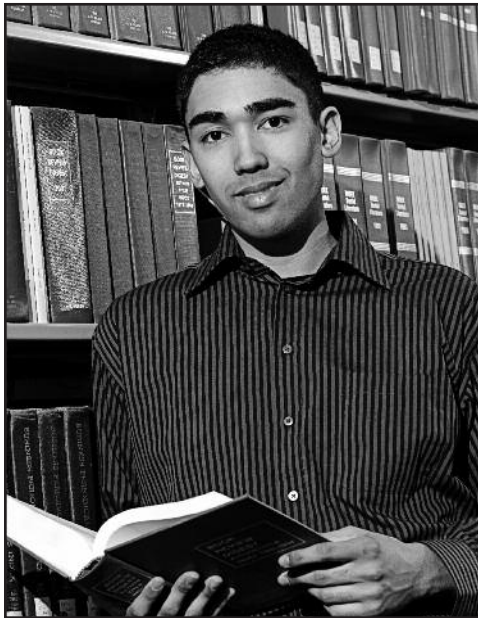- express business ideas and information effectively in both oral and in written forms.

Career Opportunities

- supervisor
- management trainee
- business owner/entrepreneur
- financial insurance planning and sales
- human resource specialist trainee

Transfer Opportunities

While the A.A.S. degree leads to immediate employment, SUNY Orange students have successfully transferred to:

- Franklin University
- Mount St. Mary College
- Ramapo College
- SUNY Empire State College

Contact Information

Business Department Chair
341-4411
Admissions Office
(845) 341-4030

Clerical Office Assistant

Degree Awarded: Certificate

Recommended Course Sequence

First Semester		Credits
OFT 108	Intermediate Computer Keyboarding	3
OFT 201	Records/Information Management	3
OFT 209	Microsoft Word and PowerPoint	3
_____	Business Elective	3

Second Semester		
OFT 109	Advanced Computer Keyboarding	3
BUS 203	Business Communications	3
OFT 207	Transcription Skills	3
OFT 214	Microsoft Excel and Access	3
_____	Business Elective	3

Total Credits: 27

Program Description

The Clerical Office Assistant certificate program provides the opportunity for graduates to either begin their careers as office assistants or to update their current office skills for re-entry into the business world. Areas of concentration include information processing, data entry, business communications and information management.

The office assistant provides office support to employers in a wide variety of settings. This support includes document production, computer software capability, records management, telephone interaction, customer service, keyboarding and data entry.

Students take a sequence of office skills courses such as keyboarding, Microsoft Word and PowerPoint, Excel and Access, and transcription. They also learn to compose business documents through the Business Communications course and to manage office documents through the Records/Information Management course.

Students learn to use modern office equipment and computer software as they apply to various work environments. Microsoft Office (Word, Excel, PowerPoint, and Access) as well as WordPerfect software programs are presented.

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

Students without sufficient keyboarding ability will be required to take Elementary Computer Keyboarding. Students with sufficient keyboarding ability to pass the waiver for Intermediate Computer Keyboarding fulfill this requirement with a business elective. To complete this program in one year, students must have basic keyboarding skills before enrolling in the program.

Clerical Office Assistant

Degree Awarded: Certificate

Program Learning Outcomes

Students will:

- demonstrate the ability to keyboard business correspondence using various computer software programs in word/information processing.
- demonstrate the ability to keyboard straight copy for five minutes with a maximum of three errors.
- understand computer concepts and applications for the office environment.
- learn critical thinking skills through an analytical business report project.

Career Opportunities

- service
- education
- travel
- entertainment
- manufacturing
- legal & medical
- insurance
- industrial
- media/advertising

Transfer Opportunities

While this certificate program leads to immediate job placement upon graduation, SUNY Orange has a special relationship with Franklin University for transfer to the B.S. degree in Applied Management. In addition, all courses taken for this certificate may be applied to the A.A.S. Office Technologies degree program at SUNY Orange.

Contact Information

Business Department Chair
341-4411
Admissions Office
(845) 341-4030

Computer Information Technology–Networking

Degree Awarded: Associate in Applied Science

Recommended Course Sequence

First Semester		Credits
ENG 101	Freshman English 1	3
MAT ___	College Algebra or higher	3
CIT 105	Data Communic. & Networking	3
CIT 117	Unix/Linux	3
CIT 138	Scripting	3
Second Semester		
ENG 102	Freshman English 2	3
MAT ___	College Trigonometry or higher	3
CIT 112	Computer Hardware and Software	4
CIT 116	Networking 1	4
CSC 101	Computer Science 1	4
Third Semester		
_____	Social Science Elective	3
CIT 103	Management Information Systems	3
CIT 203	Networking 2	4
CIT 214	Systems Analysis and Design	3
CIT 225	Database Fundamentals	3
Fourth Semester		
_____	Social Science Elective	3
CIT 206	Network Security	3
CIT 228	System Administration	3
CIT 230	Internship	3
_____	Restricted Elective*	3

Total Credits: 64

Restricted Electives:
CSC 102 Computer Science 2
CIT 111 Internet & HTML
Any course approved by the department

** Students unprepared for technical coursework are strongly urged to take CIT 100 - Computer Literacy - in addition to the standard curriculum

Program Description

The Associate in Applied Science degree program in CIT–Networking prepares students for employment in a variety of entry-level careers in computer networking and information technology occupations. The theory and practical experience students gain allows them to enter jobs with highly competitive salaries.

This degree program offers the coursework that provides background information for students to take the CompTIA's A+, Security+, Networking+, Linux+ and CISCO's CNA certification exams. The primary focus of this degree program is networking computer systems including implementation, configuration, maintenance and administration of networking equipment, which includes creation of networking servers. The degree course work introduces students to basic computer systems and builds on theoretical and technical knowledge and skills to develop a strong understanding of networking topologies, mediums and medium access techniques in both local area and wide area networks (LANs and WANs). Classes are designed to provide students with hands-on training utilizing state-of- the-art computer facilities. Students are also placed in a work environment in order to provide actual service to a business through the CIT–Networking internship.

Students are encouraged to discuss their future career and/or transfer goals with a CIT–Networking advisor.

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

Computer Information Technology–Networking

Degree Awarded: Associate in Applied Science

Program Learning Outcomes

Students will:

- Install and configure networking equipment and configure network protocols.

- Assemble a PC and troubleshoot PC hardware and software.

- Identify and summarize security threats and approapriate actions to minimize those threats.

- Install, configure, and manage a Network Operating System.

- Analyze an existing system and determine appropriate systems design and implementation strategies.

Career Opportunities

- banks
- law firms
- medical offices
- hospitals
- small businesses
- government agencies
- corporations
- schools
- colleges
- consulting firms

Transfer Opportunities

While the A.A.S. degree leads to immediate employment, SUNY Orange students have successfully transferred to:

- Marist College
- Mount St. Mary College
- St. John's University
- SUNY Institute of Technology

Contact Information

Computer Science & Technology
Department Chair
341-4523
Admissions Office
(845) 341-4030

Computer Science

Degree Awarded: Associate in Science

Recommended Course Sequence

First Semester

ENG 101	Freshman English 1	3
_____	SUNY Social Science (GE 3)	3
CIT 138	Scripting	3
MAT 205	Calculus 1	4
COM 101	Foundations of Communication	3

Second Semester

ENG 102	Freshman English 2	3
HIS ____	Restricted History Elective*	3
MAT 206	Calculus 2	4
CSC 101	Computer Science 1	4
EET 104	Digital Electronics 1	4

Third Semester

CSC 102	Computer Science 2	4
CSC 204	Computer Organization & Assembly	3
PHY 105	General Physics 1 w/calculus	4
MAT 211	Linear Algebra	3
_____	Restricted SUNY Elective***	3

Fourth Semester

CSC 201	Data Structures	3
PHY 106	General Physics 2 w/calculus	4
MAT 120	Introduction to Statistics	3
MAT 136	Discrete Mathematics	3

Total Credits: 64

*SUNY American History (GE 4) or Western Civilization (GE 5) or Other/World Civilization (GE 6).
**Consult catalog of the college to which you intend to transfer. Some require the General Physics with calculus.
***SUNY Arts (GE 8) or Foreign Language (GE 9) lists or any list not selected from in Second Semester SUNY History Elective above.

Program Description

The Associate in Science degree program in Computer Science is designed for students of mathematics and science who wish to pursue a Bachelor of Science degree in Computer Science at senior colleges and universities. Its goal is to prepare the students for a successful transfer into such degree programs.

The curriculum is structured to emphasize scientific applications and the theoretical concepts which underlie computer design and development, languages, and systems. The program provides the core courses that would be encountered in the first two years of study at most four-year institutions.

Associate degree core courses in calculus, linear algebra, discrete math, digital electronics, computer science, data structures and assembly language programming constitute the nucleus of this program. Selected courses in the liberal arts support and enhance this central core.

To initiate this plan of study, students must have tested into college algebra (MAT 121) or higher on the mathematics placement test. Students who do not meet the math requirement can be successful in reaching their academic goals by taking foundation courses and extending the program to three years.

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

Degree Awarded: Associate in Science

Program Learning Outcomes

Students will:

- Demonstrate ability in problem solving and communicating algorithms clearly, utilizing structures/top-down algorithm design processes.
- Demonstrate familiarity with a wide variety of abstract data structures and data encapsulation concepts.
- Demonstrate knowledge of assembler language programming as it applies to computer architecture and operating systems.
- Demonstrate ability in computational methods of mathematics and physical science necessary for computer modeling.

Career Opportunities

- computer engineering
- computer systems analysis
- education
- computer programming
- cryptology
- applied mathematics
- financial analysis

Transfer Opportunities

SUNY Orange has special relationships with upper-level colleges and universities for transfer.

These transfer institutions include:

- Clarkson University
- Florida Memorial University
- Marist College
- R.P.I.(Rensselaer Polytechnic Institute)
- St. John's University
- SUNY Binghamton
- SUNY Buffalo
- SUNY Institute of Technology
- SUNY New Paltz
- SUNY Oneonta
- SUNY Purchase

Contact Information

Computer Science & Technology
Department Chair
(845) 341-4523
Admissions Office
(845) 341-4030

Criminal Justice

Degree Awarded: Associate in Science

Recommended Course Sequence

First Semester		Credits
ENG 101	Freshman English 1	3
SOC 101	Introduction to Sociology	3
MAT 121	College Algebra or higher	3
CRJ 101	Criminal Justice	3
CRJ ____	Criminal Justice elective *	3

Second Semester		
ENG 102	Freshman English 2	3
PSY 111	Intro to Psychology	3
COM 101	Foundations of Communication	3
CRJ 111	Criminology	3
CRJ 113	Correction, Probation & Parole	3
PES ____	Physical Education	1

Third Semester		
CRJ 213	Police Organization Admn.	3
CRJ 115	Constitutional Law & Criminal Procedure	3
CRJ ____	Criminal Justice elective *	3
_____	SUNY Natural Science (GE 2)	3-4
_____	Restricted SUNY Elective ♦	3
PES 100	Concepts of Physical Wellness	1

Fourth Semester		
CRJ 211	Criminal Law	3
CRJ ____	Criminal Justice elective *	3
CRJ ____	Criminal Justice elective *	3
_____	Restricted SUNY Elective #	3
_____	Any SUNY GE elective	3

Total Credits: 62-64

♦ *Select from GE 4, 5 or 6.*
Select from GE 4, 5, 6, 8 or 9 (not already taken).

* *CRJ Electives*
   CRJ 103 Understanding the Juvenile Offender
   CRJ 105 Police Community Relations
   CRJ 106 Patrol Operations
   CRJ 107 Industrial and Private Security
   CRJ 109 Critical Issues in Law Enforcement
   CRJ 210 Terrorism and Society
   CRJ 215 Criminal Investigation 1
   CRJ 216 Criminal Investigation 2
   CRJ 226 Criminalistics
   CRJ 230 Criminal Justice Internship

This program can be completed in its entirety at either the Middletown campus or the Newburgh campus.

Program Description

The mission of the SUNY Orange Department of Criminal Justice is to provide qualitative educational programs in the areas of Law, Justice, Corrections and Law Enforcement. Through this programming, our students develop skills and knowledge that prepares them to continue their education and/or to pursue entry level careers in the field of criminal justice.

The Associate in Science (A.S.) degree in Criminal Justice prepares students to continue their education in four-year degree programs in criminal justice or related liberal arts areas of study. These may include forensic psychology, public administration, sociology, cyber security, criminology and pre-law. The A.S. degree in Criminal Justice is designed to facilitate the acquisition of the technological and critical thinking skills that are essential for success in the criminal justice field. Graduates of this program will have both a general educational background as well as the criminal justice insight needed to pursue careers within the justice system. This degree program is reviewed regularly to ensure that the course content reflects contemporary issues facing the criminal justice system (e.g. homeland security, terrorism, cyber security, technological advancements, diversity and ethics) and explores criminal justice topics such as the nature and extent of crime, public policy implications related to justice, racial and ethnic profiling, crime scene processing, law enforcement technology and terrorism. Moreover, there are courses devoted to the treatment of adult and juvenile offenders as well as an internship program where students are afforded the opportunity to utilize their newly acquired skills and knowledge in an actual criminal justice environment. The A.S. in Criminal Justice provides students with a solid foundation from which to continue their education as well as pursue a rewarding career.

Admission Criteria

Admission to these programs requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates they may be eligible for admission to the college's 24 credit hour program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants).

Degree Programs, Classes and Advising

Criminal Justice degree programs are offered at both the Middletown and Newburgh campuses. We have day and evening classes and many of our courses are also available online. Students will be assigned a faculty advisor who can help answer any questions they might have regarding classes, scheduling, etc. All teaching faculty have weekly office hours during the Fall and Spring semesters and are usually available at other times by appointment. If you need to contact a faculty member we encourage you to email them. Email addresses can be found on our website - www.sunyorange.edu/cj/faculty.shtml

Degree Awarded: Associate in Science

Program Learning Outcomes

Upon completion of these programs, students will demonstrate:

- an understanding of the components and functions of the criminal justice system (police, courts, corrections)

- an understanding of the common concepts relevant to the criminal justice system and be able to assess and discuss these concepts.

- an understanding of our legal system, constitutional law, procedural law and substantive law.

- an understanding of the importance of diversity and ethics and their impact and relevancy within the criminal justice system.

- effective oral and written communication skills

This degree has been approved by SUNY NYS Education Department for online distance learning delivery. This does not mean that SUNY Orange offers every course in the program online; however, many are offered in this format. Please check the current credit course schedule for online DL virtual course listings offered each semester.

Criminal Justice Offices

The Department of Criminal Justice's Middletown office is located Hudson Hall room 103 and our Newburgh office is located in room 317 of the Tower Building. Please feel free to stop by and say hello. You will find the Criminal Justice faculty and staff eager to assist you as you move towards completing your degree.

Career Opportunities

- Federal Bureau of Investigation (FBI)
- Immigration and Naturalization Service (INS)
- park police
- postal inspector
- secret service agent
- secret service uniformed
- deputy sheriff
- state police/trooper
- police officer
- district attorney
- defense counsel
- correction officer
- forensics specialist
- court clerk
- judge

Transfer Opportunities

SUNY Orange has special relationships with upper-level colleges and universities for transfer.

These institutions include:

- Alfred University
- Berkley College
- John Jay College of Criminal Justice
- Marist College
- Mount St. Mary College
- Pace University
- St. Thomas Aquinas
- St John's University
- SUNY

Contact Information

Criminal Justice
Department Chair
845-341-4355
Admissions Office
(845) 341-4030

Criminal Justice–Police

Degree Awarded: Associate in Applied Science

Recommended Course Sequence

First Semester		Credits
ENG 101	Freshman English 1	3
CRJ 101	Criminal Justice	3
CRJ 105	Police/Community Relations	3
CRJ 107	Industrial & Private Security	3
CRJ 215	Criminal Investigation 1	3
PES 100	Concepts of Physical Wellness	1

Second Semester		
ENG 102	Freshman English 2	3
PSY____	Psychology Course	3
CRJ 111	Criminology	3
CRJ 106	Patrol Operations	3
CRJ 216	Criminal Investigation 2	3
PES ___	Physical Education	1

Third Semester		
SOC 120	Social Problems or	
SOC 101	Introduction to Sociology	3
CRJ 103	Understanding the Juvenile Offender	3
_____	Math or Liberal Arts Science	3
CRJ 213	Police Organization & Administration	3
CRJ 226	Criminalistics	3

Fourth Semester		
COM 101	Foundation of Communication	3
POL 102	U.S. Gov't-State & Local	3
CRJ 211	Criminal Law	3
_____	Math or Liberal Arts Science	3
_____	Elective	3

Total Credits: 62

This program can be completed in its entirety at either the Middletown campus or the Newburgh campus.

Program Description

The mission of the SUNY Orange Department of Criminal Justice is to provide qualitative educational programs in the areas of Law, Justice, Corrections and Law Enforcement. Through this programming, our students develop skills and knowledge that prepares them to continue their education and/or to pursue entry level careers in the field of criminal justice.

The Associate in Applied Science (A.A.S) degree program in Criminal Justice–Police is aimed at students who do not anticipate continuing their studies at a four-year institution because they envision themselves entering the workforce directly upon graduating. As a result, the A.A.S. degree does not have the same math or science requirements as the A.S. degree, though many of the other required courses in the A.A.S. degree are identical to those required by the A.S. degree. The A.A.S. provides students with the college credits often required by many local, state and federal criminal justice agencies so it is intended to prepare students for entry level positions in law enforcement, security, law, probation, parole, juvenile justice and investigations. All instructors, in addition to their advanced educational backgrounds, are experienced practitioners in their fields.

Admission Criteria

Admission to these programs requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates they may be eligible for admission to the college's 24 credit hour program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants).

Degree Programs, Classes and Advising

Criminal Justice degree programs are offered at both the Middletown and Newburgh campuses. We have day and evening classes and many of our courses are also available online. Students will be assigned a faculty advisor who can help answer any questions they might have regarding classes, scheduling, etc. All teaching faculty have weekly office hours during the Fall and Spring semesters and are usually available at other times by appointment. If you need to contact a faculty member we encourage you to email them. Email addresses can be found on our website - www.sunyorange.edu/cj/faculty.shtml

Degree Awarded: Associate in Applied Science

Program Learning Outcomes

Upon completion of these programs, students will demonstrate:

- an understanding of the components and functions of the criminal justice system (police, courts, corrections)

- an understanding of the common concepts relevant to the criminal justice system and be able to assess and discuss these concepts.

- an understanding of our legal system, constitutional law, procedural law and substantive law.

- an understanding of the importance of diversity and ethics and their impact and relevancy within the criminal justice system.

- effective oral and written communication skills

This degree has been approved by SUNY NYS Education Department for online distance learning delivery. This does not mean that SUNY Orange offers every course in the program online; however, many are offered in this format. Please check the current credit course schedule for online DL virtual course listings offered each semester.

Criminal Justice Offices

The Department of Criminal Justice's Middletown office is located Hudson Hall room 103 and our Newburgh office is located in room 317 of the Tower Building. Please feel free to stop by and say hello. You will find the Criminal Justice faculty and staff eager to assist you as you move towards completing your degree.

Career Opportunities

- Federal Bureau of Investigation (FBI)
- Immigration and Naturalization Service (INS)
- park police
- postal inspector
- secret service agent
- secret service uniformed
- deputy sheriff
- state police/trooper
- police officer
- district attorney
- defense counsel
- correction officer
- forensics specialist
- court clerk
- ballistics specialist
- fingerprint specialist
- security

Transfer Opportunities

SUNY Orange has special relationships with upper-level colleges and universities for transfer.

These transfer institutions include:

- Alfred University
- Berkley College
- John Jay College of Criminal Justice
- Marist College
- Mount St. Mary College
- Pace University
- St. Thomas Aquinas
- St John's University
- SUNY

Contact Information

Criminal Justice
Department Chair
(845) 341-4355
Admissions Office
(845) 341-4030

Cyber Security

Degree Awarded: Associate in Applied Science

Recommended Course Sequence

First Semester		Credits
ENG 101	Freshman English 1	3
MAT 121	College Algebra	3
CRJ 101	Intro to Criminal Justice	3
CIT 100	Computer Literacy	3
CIT 105	Data Communications and Introduction to Networking	3

Second Semester		
ENG 102	Freshman English 2	3
CIT 116	Networking 1	4
CIT 112	Computer Hardware and Software	4
CIT 118	Operating Systems	4
MAT 122	College Trigonometry	3

Third Semester		
CIT 203	Networking 2	4
CIT 217	Introduction to Unix/Linux	3
CFR 221	Computer Forensics	3
CSS 223	Information Security	3
PSY ___	Psychology	3

Fourth Semester		
CFR 222	Network Forensics	3
CSS 224	Network Perimeter Security	3
CSS 226	Cyber Crime Investigations	3
CRJ 111	Criminology	3
_____	Restricted Elective *	3

Total Credits: 64

Restricted Electives:
CIT 111 - Internet & HTML Programming
CIT 115 - Visual Basic
Any course approved by the Department Chair

Program Description

The Associate in Applied Science degree program in Cyber Security prepares students for employment in a variety of entry level careers in Cyber Security. Today, everyone is concerned with security, and people with knowledge in this area are in high demand. Positions can include such titles as Network Administrator, network security specialist, information security technician, just to name a few. The main thrust is protection of information and limiting access to network resources. In addition to security, students will also be instructed in techniques used to track perpetrators once an attack has occurred.

In addition to basic computer and networking skills, the student will be instructed in Operating Systems, Computer Forensics, Network Forensics, Information Security, Network Perimeter Security, and Cyber Crime Investigation.

Classes are designed to provide students with hands-on training utilizing state-of-the-art computer facilities. Lab work and assignments will present real world cyber security scenarios encountered in the work place. For forensics studies, industry standard software will be used.

While A.A.S. graduates are prepared to enter the workforce immediately, many students choose to transfer to upper-level programs leading to a bachelor's degree in technology. If students are considering this, they should consult with the department chair and advisors for program planning. Special planning is available for students entering the program with previous college credit or equivalent training/work experience.

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission.

Hudson Valley Educational Consortium students from Sullivan County Community College or Ulster Community College who plan to register for Cybersecurity courses must apply to and be accepted in the program by the following dates: August 15 for a Fall semester; December 15 for a Spring semester.

Degree Awarded: Associate in Applied Science

Program Learning Outcomes

Students will:

- Develop basic networking and computer skills, specifically as they relate to industry environments and practices.
- Demonstrate knowledge of Operating Systems fundamentals and configure and utilize software packages.
- Demonstrate an understanding of network security and forensics and perform computer forensic analysis.
- Develop an understanding of the social, institutional, and legal issues associated with cybersecurity and document appropriate procedures for handling case evidence.

Career Opportunities

Entry level
- Network Administrator
- Network Security Specialist
- Computer Crime Investigation

Transfer Opportunities

SUNY Orange has special relationships with upper-level colleges and universities for transfer.

These transfer institutions include:

- St. John's University

Contact Information

Computer Science & Technology
Department Chair
341-4523

Admissions Office
(845) 341-4030

Dental Hygiene

Degree Awarded: Associate in Applied Science

Accredited by the Commission on Dental Accreditation, American Dental Association
211 East Chicago Avenue, Chicago, Illinois 60611, (312) 440-2500.

Recommended Course Sequence

First Semester		Credits
ENG 101	Freshman English 1	3
BIO 115	Human Biology	4
CHM 110	General and Biological Chemistry	3
DNT 101	Preventive Oral Health Services 1	5
DNT 103	Maxillofacial Anatomy and Oral Histology	4

Second Semester		
ENG 102	Freshman English 2	3
DNT 102	Preventive Oral Health Services 2	5
DNT 104	Dental Radiology	3
DNT 106	Oral Health Education	2
DNT 108	Pharmacology	2
MLT 106	Microbiology for Health Professionals	3

Summer Session 1		
DNT 110	Pain Management in Dentistry	2

Third Semester		
BIO 125	Nutrition	3
DNT 201	Preventive Oral Health Services III	5
DNT 203	Oral Pathology	2
DNT 205	Periodontology	2
DNT 207	Dental Bio-Materials and Advanced Functions	3

Fourth Semester		
COM 101	Foundations of Communication	3
PSY 111	Introduction to Psychology	3
SOC 101	Introduction to Sociology	3
DNT 202	Preventive Oral Health Services IV	5
DNT 206	Community Dental Health	2
	Total Credits:	70

Note: An additional requirement is current certification in CPR. "BLS (Basic Life Support) for Healthcare Providers" is the recommended course (American Heart Association). Certification documentation must be submitted at the beginning of the second semester.

Program Description

The Associate in Applied Science degree program in Dental Hygiene prepares students for licensing by the State Board for Dentistry of New York to practice dental hygiene. Dental hygienists work under the supervision of a licensed dentist. They provide preventive, therapeutic and educational services within the parameters of the state law governing the practice of dental hygiene. In addition to traditional skills, these responsibilities include the administration of local infiltration anesthesia and nitrous oxide sedation.

The curriculum is focused on the three professional domains: professionalism, health promotion and disease prevention, and patient care. Coursework includes requirements in English, social sciences, the sciences, and program-specific courses and laboratory experiences. In order to develop necessary skills, students first practice on peers. Then they actively participate in clinical dental hygiene experiences in the College Dental Hygiene Clinic, as well as at off-campus sites including hospitals. Dental Hygiene courses are offered once each year. Courses must be taken in the sequence in which they are offered without interruption. Dental Hygiene courses cannot be taken on a part-time basis. A minimum grade of C (75%) is required in all dental hygiene courses. Program requirements for graduation also include portfolio development and case-based clinical case presentations. Membership in the Student American Dental Hygienists' Association is mandatory.

Students who are considering this program must understand that they are required to provide their own transportation to off-campus facilities and are required to purchase their own instruments and related supplies. They must also have a yearly physical examination with a TB test and criminal background check. Upon initial entrance into the program, a negative 10- panel drug test will also be required. The Hepatitis B vaccine is strongly recommended. Students with disabilities should meet with the Coordinator of Special Services upon entering the program. Non-citizen graduates must have permanent residence status to obtain a dental hygiene license in New York State. An individual who has charges pending or has ever been convicted of a felony or misdemeanor and/or has been found guilty of professional misconduct or negligence may not be eligible for licensure. Contact the Office of Professional Discipline, New York State Education Department prior to applying to this program. Finally, pregnant or potentially pregnant students should note that there is a risk associated with exposure to nitrous oxide gas. Students who are unwilling or unable to sit as patients should not apply to this program.

Admissions Criteria

Academic Requirements:

- *New, Transfer, Readmit and Seeking 2nd SUNY Orange Degree Students ONLY:* Must have a current college application on file
- High School Diploma or high school equivalency (HSE) diploma
- Eligible to take Freshman English 1 (ENG 101)
- Eligible to take Intermediate Algebra (MAT 102) or have successfully completed Elementary Algebra (MAT 101), or

Degree Awarded: Associate in Applied Science

equivalent, with a "C" or higher

- Completed one of the following within 5 years of the application deadline: Intro to Biology (BIO 110), General Biology I (BIO 101), Human Biology (BIO 115), Anatomy & Physiology I (BIO 111), Anatomy & Physiology II (BIO 112) with a grade of "C" or higher; Passing grade on the Biology CLEP examination; or High School AP Biology (score of 3 or higher) – submit the official AP transcript from College Board

- Completed High School Regents (New York State) course or College Prep Chemistry course with a grade of 75 or higher, passing grade on the Chemistry CLEP examination (no credit will be given, but will count towards meeting admissions criteria), or a college Chemistry course (with a lab), all with a grade of "C" or higher and all within 5 years of the application deadline

- Students must attain a minimum cumulative GPA of 2.5

Department Specific Requirements:

- Attendance at a Dental Hygiene pre-admission seminar within 3 years of the application deadline. At this seminar, students will receive and sign off on information pertaining to health forms, drug testing, criminal record, and infectious disease policies.

- Submit Dental Hygienist Observation Form (16 hour minimum with documentation) within 3 years of the application deadline.

Pre-Admission seminar dates and observation forms are available online at www.sunyorange.edu/admissions/healthforms.shtml

Note: Admission to this program is selective. In addition to an application to the College, students must apply for acceptance into this program through the Admissions office. Consideration for admission is based on the completion of all mandatory academic and departmental-specific requirements, highest combination of CQPA and credits completed towards the degree, Orange County residency and seat availability. All requirements must be completed and an eligibility form must be submitted to the Admissions Office before February 1 in order for a student to be considered for acceptance into this program for the Fall semester.

Program Learning Outcomes

Students will:

- discern and manage the ethical issues of dental hygiene practice in a rapidly changing environment.

- acquire and synthesize information in a critical, scientific and effective manner.

- be concerned with improving the knowledge, skills and values of the profession.

- provide planned educational services using appropriate interpersonal communication skills and educational strategies to promote optimal health.

- initiate and assume responsibility for health promotion and disease prevention activities for diverse populations.

- systematically collect, analyze and accurately record baseline data on the general, oral and psychosocial health status of the patient using methods consistent with medicolegal principles.

- discuss the condition of the oral cavity, the actual and potential problems identified, the etiological and contributing factors, as well as recommended and alternative treatments available.

- provide treatment that includes preventive and therapeutic procedures to promote and maintain oral health and assist the patient in achieving oral health goals.

- evaluate the effectiveness of planned clinical and educational services and modify them as necessary.

Career Opportunities

- private practice
- hospitals
- health service agencies
- overseas
- military

Transfer Opportunities

While the A.A.S. degree leads to immediate employment, SUNY Orange students can transfer to:

- Manhattan College
- Massachusetts College of Pharmacy and Health Sciences
- Pennsylvania College of Technology

Contact Information

Dental Hygiene
Department Chair
341-4306
Admissions Office
(845) 341-4030

Early Childhood Development and Care

Degree Awarded: Associate in Applied Science

Recommended Course Sequence

First Semester		Credits
ENG 101	Freshman English 1	3
PSY 111	Introduction to Psychology	3
EDU 105	Preparing to Teach Young Children	2
EDU 101	Child Development 1++	3
EDU 111	Childhood Health and Safety	3
EDU 107	Protecting Children's Well-Being	1
PES 100	Concepts of Physical Wellness	1

Second Semester		
ENG 102	Freshman English 2	3
EDU 102	Child Development 2++	3
_____	SUNY Gen Ed Elective**	3
MAT ___	SUNY Math* (GE1)	3
EDU 208	Home, School, Community	3
PES ____	Physical Education	1

Third Semester		
COM 101	Foundations of Communication	3
EDU 109	Language and Literacy Development in the Young Child	3
EDU 203	Child Care Curriculum Development/Field Experience 1++	5
EDU 201	Observation & Assessment++	3
_____	SUNY Gen Ed Elective**	3

Fourth Semester		
PED 156	Infant/Child First Aid & CPR	1
EDU 202	Infant and Toddler Development and Curriculum++	3
EDU 204	Child Care Curriculum Development/Field Experience 2++	5
EDU 206	Administration and Management of Child Care Centers	3
_____	SUNY Gen Ed Elective**	3
	Total Credits:	64

++ *Local daytime observations beyond college classroom required.*
* *MAT 102 or higher (MAT 111 recommended)*
** *These electives MUST satisfy **three (3) different** SUNY General Education categories chosen ONLY from: Natural Sciences (GE2), American History (GE4), Western Civilization (GE5), Other World Civilizations (GE6), Arts (GE8), Foreign Languages (GE9), with at least ONE from either Category GE 4, GE 5 or GE 6.*

Program Description

The Associate in Applied Science degree program in Early Childhood Development and Care prepares students for responsible and effective employment in positions ranging from aide to head teacher in a variety of early childhood settings. *(Note: In order to be a Universal PreK teacher a four-year degree is required. See an Education Department adviser to determine the appropriate transfer degree program.)* The program provides theory, practical information and extensive supervised experience concerning normal early human development, developmental difficulties, caring for and educating young children, methods for fostering child development, and the operation and management of early childhood facilities.

The primary goals of the Early Childhood Development and Care program are to develop cognitive and critical thinking skills through an integrated education plan; to promote the use of applied knowledge of developmentally appropriate practices in both the College classroom and early learning field site environments; to furnish opportunities for self-directed, creative, professional learning activities; to provide field experiences ranging from minimal observation to full participation, allowing students to demonstrate increasing technical skills working with young children.

Because current research shows that the early years are among the most vital in human development, professional and appropriate educational experiences will develop the ECDC student's thinking, practical and personal skills necessary to teach and care for young children. These activities take place in college classes and seminars, and also in local area field sites. In the field, extensive "hands-on" observation and participation give opportunities to apply education principles, receive individual guidance and feedback, and be involved first-hand, with day-to-day activities in diverse early childhood learning environments. Upon completion of the coursework students will have accumulated 235 hours of field work.

A grade of C (2.00) or better is required in all EDU courses for progression in the program and graduation with an A.A.S. or Certificate in Early Childhood Development and Care.

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

Early Childhood Development and Care

Degree Awarded: Associate in Applied Science

Program Learning Outcomes

Students will:

- Demonstrate a firm foundation of knowledge in child development.

- Understand essential concepts of developmentally appropriate practice in teaching young children.

- Understand and value the importance of children's diverse families and communities, and how to use that knowledge to foster respectful, reciprocal relationships with children and their families.

- Understand the goals, benefits, and uses of assessment, and be able to effectively use developmentally appropriate observation and assessment practices.

- Design, implement, and evaluate developmentally appropriate curriculum and environments for young children.

- Understand and uphold ethical standards and other professional guidelines in the field of early childhood, and engage in, practice that is both collaborative and reflective in college classrooms and through extensive field assignments.

- Demonstrate college level proficiency in written and oral communication, critical thinking, and analytical, mathematical, and scientific reasoning.

Career Opportunities

- center director
- head teacher (non-public settings)
- teacher assistant
- family child care provider
- early childhood business owner
- nanny or au pair
- early intervention specialist
- recreation leadership
- home visitor
- child care resource and referral
- curriculum consultant

Transfer Opportunities

While the A.A.S. degree leads to immediate employment, SUNY Orange students have successfully transferred. Please check with the intended transfer school for details.

Contact Information

Education
Department Chair
341-4486
Admissions Office
(845) 341-4030

Early Childhood Development and Care

Degree Awarded: Certificate

Recommended Course Sequence

First Semester		Credits
ENG 101	Freshman English 1	3
PSY 111	Introduction to Psychology	3
EDU 105	Preparing to Teach Young Children	2
EDU 101	Child Development 1++	3
EDU 107	Protecting Children's Well-Being	1
EDU 109	Language and Literacy Development in the Young Child	3

Second Semester		
ENG 102	Freshman English 2	3
EDU 102	Child Development 2++ *	3
PED 156	Infant/Child First Aid & CPR	1
EDU 111	Childhood Health and Safety	3
EDU 202	Infant and Toddler Development and Curriculum++ *	3
EDU 208	Home, School, and Community	3

Total Credits: 31

++ *Local daytime observations beyond college classroom required.*
* *offered Spring semester only*

Program Description

The Early Childhood Development and Care certificate program is designed to develop professional career skills in preparation for entry level positions in a variety of early childhood fields. Students will complete 60 hours of observation in local early learning centers in addition to college classroom time. This field work provides an opportunity to link theory with hands-on practice. Students will be required to demonstrate an understanding of the theories related to child development, the techniques for fostering such development and the operation of a child care facility. Nine of the 12 courses in the ECDC certificate program directly relate to early childhood. All courses apply to an Associate in Applied Science (A.A.S.) degree in Early Childhood Development and Care. A grade of C (2.00) or better is required in all EDU courses for progression in the program and graduation.

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

Early Childhood Development and Care

Program Learning Outcomes

Students will:

- Demonstrate a firm foundation of knowledge in child development.

- Understand essential concepts of developmentally appropriate practice in teaching young children.

- Understand and value the importance of children's diverse families and communities, and how to use that knowledge to foster respectful, reciprocal relationships with children and their families.

- Understand and uphold ethical standards and other professional guidelines in the field of early childhood, and engage in practice that is both collaborative and reflective in college classrooms and through field assignments.

Career Opportunities

Entry level or aide positions in:
- child care centers
- preschools
- nursery schools.

Transfer Opportunities

The ECDC certificate is designed to prepare graduates for immediate entry into the workplace. However, every credit from the certificate will apply to the SUNY Orange ECDC A.A.S. degree.

Contact Information

Education
Department Chair
341-4486
Admissions Office
(845) 341-4030

Engineering Science

Degree Awarded: Associate in Science

Recommended Course Sequence

First Semester-Fall		Credits
ENG 101	Freshman English 1	3
CHM 105	General Chemistry 1	4
PHY 103	Physics for Science & Eng. 1	4
MAT 205	Calculus 1	4
EGR 101	Intro to Engineering Design	3

Second Semester-Spring		
ENG 102	Freshman English 2	3
PHY 104	Physics for Science & Eng. 2	4
CHM 106	General Chemistry 2	4
MAT 206	Calculus 2	4
EGR 102	Programming for Engineers	3

Third Semester-Fall		
_____	SUNY Social Science (GE 3)	3
PHY 203	Physics for Science & Eng. 3	4
MAT 207	Calculus 3	4
EGR 205	Statics	4
_____	Engineering Elective *	3

Fourth Semester-Spring		
_____	SUNY American History (GE 4)	3
MAT 214	Differential Equations &Series	4
EGR 206	Dynamics	4
_____	Engineering Elective *	3

Total Credits: 68

*Note: Students must take a minimum of two courses from
the following depending on their area of specialization:*
Thermodynamics (EGR 214) summer
Solid Mechanics   (EGR 220) spring
Circuit Theory   (EGR 212) spring
Modern Physics   (PHY 204)
Materials Science (EGR 218) fall
Linear Algebra   (MAT 211) fall/summer
Engineering Computations (EGR 216)
*Students majoring in chemical, biological or environmental
engineering should plan to take:*
Organic Chemistry I (CHM 201) and
Organic Chemistry II (CHM 202)
*CHM 202 may be substituted for EGR 206 with permission
from the department chair*
Computer Engineering majors should take:
*Computer Science I and II (CSC 101 and 102) and
Data Structures (CSC 201). (CSC 101 may be
substituted for EGR 102 and CSC 201 may be
substituted for EGR 206, with the permission of the
department chair.) Proper advising is crucial for proper
course selection.*

Program Description

The Associate in Science degree program in Engineering Science is designed specifically to enable students to transfer, with junior status, to the upper-level engineering college or university of their choice, where they can complete the Bachelor of Science degree in Engineering. As such, the program provides the same core courses that would be encountered in the first two years of study at most four-year institutions offering engineering degrees in the following disciplines:

• Aeronautical Engineering

• Architectural Engineering

• Biological Engineering

• Chemical Engineering, ChE

• Civil Engineering, CE

• Computer Engineering

• Electrical Engineering, EE

• Environmental Engineering

• Geological Engineering

• Materials Engineering

• Mechanical Engineering, ME

• Nuclear Engineering

Core courses in calculus, chemistry, engineering physics and engineering science constitute the nucleus of this program. Selected courses in the liberal arts support and enhance this central core.

To begin the two year program, students must be at the mathematical level of Calculus 1 (MAT 205) or must have completed either College Trigonometry* (MAT 122) or Pre-Calculus Mathematics* (MAT 131).

Students who do not meet the above requirements should not be discouraged. Many students, who have either missed some foundational courses or who have family/job commitments, opt to take the extended program, which prepares them for Calculus 1 (MAT 205). Although this path will require more than four semesters, it enables students to reach their educational goal and to work as professional engineers in the above-mentioned fields. Students taking the extended option should meet with their advisor to arrange a planned course of study.

The Engineering Science program at SUNY Orange strives to form a student's ability to think critically in real time, to develop a professional work ethic built on cooperation and group problem solving, and to provide the rigorous conceptual and ethical framework required in a field where professional competence is expected.

These prerequisite courses may be taken in the summer.

Engineering Science

Degree Awarded: Associate in Science
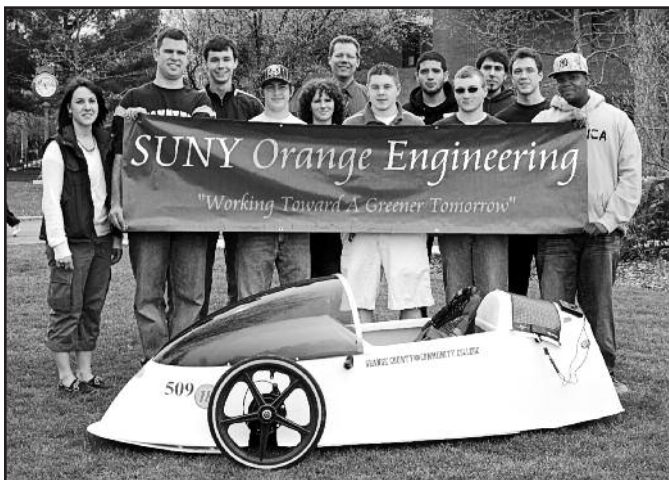
Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

Students must have tested into or completed Calculus 1 (MAT 205) to begin progress toward this degree. If recent high school graduates have concerns about their mathematics preparation they should consider taking Pre-Calculus Mathematics (MAT 131) during the summer before their entrance into the program.

Program Learning Outcomes

Students will:

- demonstrate literacy in the mathematical, computational and scientific languages of Engineering Science.
- demonstrate competency in written, oral and graphic communication skills, including applications to Engineering Science.
- demonstrate literacy in a programming language and in computer assisted techniques for engineering problem solving and design.
- plan, organize and implement laboratory experiments and prepare a formal detailed laboratory report of findings.

Career Opportunities

- private sector engineering firms
- research and development opportunities in private and public sector
- engineering positions in city, state or federal agencies
- excellent background for other fields, i.e. law or medicine

Transfer Opportunities

SUNY Orange has special relationships with upper-level colleges and universities for transfer.

These transfer institutions include:

- Clarkson University
- Manhattan College
- New Mexico Tech
- Ohio State University
- Penn State University
- Rensselaer Polytechnic University (RPI)
- Stevens Institute of Technology
- SUNY Binghamton
- SUNY Buffalo
- SUNY New Paltz.
- SUNY Stony Brook
- Syracuse University
- University of Colorado
- University of Dayton
- University of Illinois

Contact Information

Science, Engineering and Architecture Department Chair
341-4571
Admissions Office
(845) 341-4030

Exercise Studies

Degree Awarded: Associate in Science

Recommended Course Sequence

First Semester		Credits
ENG 101	Freshman English 1	3
_____	SUNY Math (GE 1) - MAT 102 or higher	3
BIO 110	Introduction to Biology	3
PEM____	Skills	1
PED 100	Introduction to Phys. Ed. **or**	
PED 101	Introduction to Exercise Studies	2
PED 150	First Aid	2
_____	Restricted SUNY History Elective*	3

Second Semester		
BIO 111	Anatomy and Physiology 1	4
ENG 102	Freshman English 2	3
_____	SUNY Social Science (GE 3)	3
PEM___	Skills	1
PED 201	Introduction to Human Movement^	3
BIO 125	Nutrition	3

Third Semester		
BIO 112	Anatomy & Physiology 2	4
PED 112	Contemporary Health	3
PED 202	Basic Exercise Physiology @	3
COM 101	Foundations of Communication	3
PEM____	Skills	1
PED_____	Exercise Studies Elective**	2-3

Fourth Semester		
PED 203	Physical Fitness & EXRX+ **and**	3
PED 204	Lab Fitness Assessment+	1
_____	Restricted SUNY Elective***	3
PED 280	Exercise Studies Capstone	2
PED 230	Exercise Studies Practicum	2
PED 111	Substance Abuse	3

	Total Credits	64-65

* SUNY American History (GE 4) or Western Civilization (GE 5) or Other World Civilization (GE 6) list
**Any PED course NOT required in the above curriculum
***SUNY Arts (GE 8) or Foreign Languages (GE 9) list or any list not selected from the Restricted History elective
+ PED 203 & 204 are co-requisites and MUST be taken together
^ PED 201 has a pre/co-requisites of BIO 111
@ PED 202 has a pre/co-requisites of BIO 112

Program Description

The Associate in Science degree program in Exercise Studies is designed for students who are interested in professional areas of fitness and exercise specialties in a variety of physical fitness/health promotion programs. This program prepares students to pursue further education and careers in such fields as athletics, medicine, instruction, research and community health. Completing this degree program, students will have built a base knowledge and prepare for transfer to four-year programs including physical education, health and wellness programs, exercise physiology or nutrition.

The theoretical coursework is concentrated in the areas of human movement, exercise physiology, exercise prescription and fitness assessment. These classes give students a broad background in, as well as a practical experience with, the mechanics and physiology of the human body with regard to fitness, health and well-being. The Exercise Studies students complete specific lifetime and sport skills coursework. In addition, students complete coursework in a broad liberal arts education; this work includes study in arts, foreign language, english, history, and sociology.

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

In addition, students must declare themselves exercise studies majors and meet with a Movement Science faculty member to review their career goals and course selections. Once students are accepted, they are required to attend one of the program orientation sessions.

Degree Awarded: Associate in Science

Program Learning Outcomes

Students will:

- Learn and demonstrate problem solving, critical thinking and ethical behavior according to industry standards in the field of exercise science.

- Analyze, design, implement and evaluate health promotion and wellness education materials, nutritional projects, sport and fitness conditioning programs and recreational pursuits.

- Interpret health status, risk stratification and physical assessment, data employing national standards to produce: exercise prescriptions, health interventions and behavior modification

- Communicate expressively and receptively (verbal, non-verbal, written) both individually and within groups in ways that are respectful

- Demonstrate, instruct, and modify exercise using proper form and technique to ensure safe execution in accordance with industry standards and guidelines.

- Practice personal and social behaviors that exemplify commitment to and value of personal lifelong health, wellness and fitness

- Prepare and sit for a National certification in personal training and/or group fitness instructor.

Career Opportunities

- athletic trainer
- cardiac technician
- coach
- director of recreation
- exercise physiologist
- health instructor
- personal trainer
- physical educator
- recreational therapist
- strength and conditioning coach
- sports agent
- sports equipment designer
- weight management specialist
- wellness coordinator
- cardiopulmonary rehabilitation specialist
- community health director

Transfer Opportunities

SUNY Orange has special relationships with upper-level colleges and universities for transfer.

These transfer institutions include:

- Dominican College
- East Stroudsburg University
- Montclair State University
- Queens College
- SUNY Brockport
- SUNY Cortland

Contact Information

Movement Science
Department Chair
341-4245
Admissions Office
(845) 341-4030

Fire Protection Technology

Degree Awarded: Associate in Applied Science

Recommended Course Sequence

First Semester:		Credits:
ENG 101	Freshman English 1	3
SOC 101	Introduction to Sociology	3
MAT 101	Elementary Algebra	3
FIR 101	Introduction to Fire Technology	3
_____	Intro. to Fire & Emergency Services Admin.	3
PED____	Physical Education Elective	1

Second Semester:		
ENG 102	Freshman English 2	3
PSY 101	General Psychology *	3
SOC 220	Race, Ethnicity, and Society	3
FIR 103	Principles of Building Construction	3
FIR ____	Fire Protection Tech. Elective	3
PED____	Physical Education Elective	1

Third Semester:		
POL 103	U.S. Government	3
COM 101	Foundations of Communication	3
FIR ____	Fire Protection Tech. Elective	3
FIR ____	Fire Protection Tech. Elective	3
FIR ____	Fire Protection Tech. Elective	3
PED____	Physical Education Elective	1

Fourth Semester:		
_____	Natural Science Gen Ed Elective +	3
CIT 100	Computer Literacy	3
FIR ____	Fire Protection Tech. Elective	3
FIR ____	Fire Protection Tech. Elective	3
FIR ____	Fire Protection Tech. Elective	3

Total Credits   64

+ *Minimum credit value for this course is 3 credits. Students may fulfill this requirement with a course of a higher credit value.*

* *PSY 111 may be substituted for PSY 101*

Program Description

Given the unique conditions that have developed in our country over the last several years in public safety and homeland security, the Fire Protection Technology Program has gained increasing importance. The program is designed to meet the growing needs of Rockland, Orange, Sullivan and Ulster Counties and their neighboring communities for persons preparing for a career as a firefighter, fire and emergency service practitioner or engineer specialist.

The study of fire protection technology is multifaceted. It involves the study of the complete fire protection system, including fire department resources, private resources and system, chemistry and physics of fire safety, fire department management, emergency management, the legal environment and fire protection.

This program includes field training off campus which requires students to travel to Rockland County.

Studies in fire protection technology guide the student through a series of college-level courses that are designed to prepare the student for a career in the highly demanding field of fire and emergency services. Through the study of fire protection technology the student will discover the entire process for the requirements of becoming a firefighter.

The role of the firefighter has increased in complexity in recent years. The scope of responsibilities and knowledge requirements of a firefighter has grown significantly and now includes emergency medical services, assisting in the recovery from disasters, and responding to and recovering from hazardous materials incidents, building safety compliance issues, public education, wildlands fire fighting, mutual aid and more. The program is designed to prepare the students to perform as a firefighter and an effective member of a multi-agency emergency response team.

The program is designed to meet the guidelines established by the New York Emergency Management System and the National Interagency Integrated Management System (NIIMS) under the Department of Homeland Security. The A.A.S. degree in Fire Protection Technology has already received SUNY and NYSED approval through the Hudson Valley Educational Consortium.

SUNY Rockland has taken a leadership role in developing the Fire Protection Technology curriculum and the Associate of Applied Sciences degree is currently available there. Students wishing to register in this program from other HVEC colleges (SUNY Orange, SUNY Ulster and SUNY Sullivan) and participate via the Interactive Television Training Rooms will receive their degree from SUNY Rockland. Interested students should contact their home school Registrars office for assistance in the registration process.

Fire Protection Technology

Degree Awarded: Associate in Science

Recent graduates have secured positions within the New York City Fire Department and as Fire Inspectors for local government. The current fire protection management program follows the recommendations of the Fire and Emergency Service Higher Education (FESHE) model which is a division of the Federal Department of Homeland Security. An articulation agreement with John Jay College, a member of the City University of New York (CUNY) system is available for those student intending to continue their education in fire protection management.

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

Program Learning Outcomes

Students will:

- discover the entire process for the requirements of becoming a firefighter.

- effectively communicate knowledge of Fire Science content areas, including fire safety critical incident command system, emergency planning, fire scene operations, fire exercise planning, fire and emergency operations center organization and management, leadership, resource planning, and utilization of national fire science operation guidelines.

- demonstrate critical thinking, communications and management skills by analyzing situations, determining proper actions, understanding the costs and benefits of actions, evaluating possible alternatives and unforeseen circumstances, and then taking appropriate actions as an incident responder or manager.

- possess the technical and general education courses needed to be able to pursue a baccalaureate degree in fire science or emergency management.

- •support the community by providing fire and emergency services when required.

Career Opportunities

- firefighter
- fire heavy equipment operator
- fire prevention specialist
- fire hazard program specialist
- fire training specialist
- public safety and education
- dispatcher
- fire equipment manufacturing, sales, service, research and development
- forestry service fire control
- technician and consultant in aerospace services
- fire protection education

Transfer Opportunities

While the A.A.S. degree leads to immediate employment, SUNY Orange students have successfully transferred to:

- John Jay College
- University of Maryland - University College
- University of New Haven

Contact Information

Criminal Justice
Department Chair
(845) 341-4355
Admissions Office
(845) 341-4030

Green Building Maintenance and Management

Degree Awarded: Associate in Applied Science

Recommended Course Sequence

Pre-Program Requirements

Math Comp

First Semester:		Credits
CCS 102	College Life Skills	1
ENG 101	Freshman English I	3
MAT 101	Elementary Algebra	3
GRB 1100	Intro to Green Buildings (fall only)	3
GRB 1200	Intro to Renewable Energy # (fall only)	3
_____	Computer Science elective	3
PES 100	Concepts of Wellness	1
PES ____	Physical Education	1

Second Semester:		
ENG 102	Freshman English II	3
PHL 220	Ethics	3
GRB 1300	Energy Management # (spring only)	3
GRB 1400	Green Building Materials # (spring only)	3
BIO 101	General Biology 1	4

Third Semester:		
ECO 202	Microeconomics	3
GRB 2100	Building Automation and Controls # (fall only)	3
GRB 2200	Solar & Wind Systems # (fall only)	3
BIO 205	General Ecology	3
GRB 2300	Commercial Electrical # (fall only)	3

Fourth Semester:		
GRB 2400	Care of Green Spaces # (spring only)	3
MGT 205	Human Resources Management	3
GRB 2500	Troubleshooting Building Systems # (spring only)	3
_____	Liberal Arts elective +	3
GRB 2600	Green HVAC # (spring only)	3
	Total Credits:	65

*   *Required of all first-time, full-time students*
    NOTE: See College Catalog for math competency requirement.
$ *All AAS degrees require ENG 1001 Composition I, ENG 1301 Fundamentals of Speech, a 4 credit science course with lab and a minimum of 10 additional Liberal Arts credits from at least two other areas of study. Liberal Arts prefixes: ANT, ART, ECO, ENG, FLA, GEO, HIS, HON, HUM, MAT, PHO, POL, PSY, SCI, and SOC. CPT 1301, Logic and Problem Solving, is also singularly classified as liberal arts.*
#   *The technical courses for this program will be delivered on site and/or through interactive TV Distance Learning Technology approved for all Consortium colleges.*
+   *Minimum credit value for this course is 3 credits. Students may fulfill this requirement with a course of a higher credit value.*

Offered through the Hudson Valley Educational Consortium.
Lead college: SUNY Sullivan

Program Description

The associate in applied science degree in Green Building Maintenance and Management provides students with the skills and knowledge needed to maintain and manage high-performance commercial buildings.

New construction and existing buildings that have upgraded energy systems rely on sustainable technology. Recent emphasis on green technologies and LEED-certified (Leadership in Energy and Environmental Design) building standards support the use of alternative forms of energy as well as the use of sustainable products for construction, interior design and building maintenance. In addition to learning the most current theories, students will acquire the hands-on training needed to work with rapidly evolving technologies including photovoltaic cells, wind generators and geothermal heating, ventilation and air conditioning (HVAC) systems.

This program has a hands-on component which may require students to travel to Sullivan County. .

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission.

Green Building Maintenance and Management

Degree Awarded: Associate in Applied Science

Program Learning Outcomes

Students will learn:

- the skills and knowledge necessary to make decisions about the management and maintenance of building systems,

- to maintain both conventional and green building technologies and systems that are used to produce energy, heat, light, and ventilation as well as those that consume energy,

- to calculate energy efficiency and recommend changes for better outcomes,

- the essential components of building wiring, heating, cooling, and ventilation systems so they can assume responsibility for maintenance of these systems,

- the basic principles for the positioning and use of wind turbines, photovoltaic cells, passive solar systems and other green building systems,

- to manage projects, including communication with the building owners, utilities, planners, and contractors to assure effective and efficient building maintenance and management.

Career Opportunities

- Energy and indoor air quality auditor
- HVAC operations and maintenance technician
- Solar and wind energy technician
- Green building, renewable energy and energy efficiency consultant

Transfer Opportunities

While the A.A.S. degree leads to immediate employment, please check with the intended transfer school for details.

Contact Information

Stacey Moegenburg
Associate Vice President
Business, Math, Science and
Technologies Division
845-341-4286
Admissions Office
(845) 341-4030

Honors Program

Degree Awarded: Associate in Arts, Science or Applied Science

Member of the National Collegiate Honors Council and Regional NCHC

Program Requirements

A.A. Degree

6 credits Honors English: ENG 101H and ENG 102H
3 credits Honors Social Science
3 credits Honors Humanities
MAT 205   Calculus 1 *
HON 201H Honors Seminar
          (3 semesters, 1 credit each) ***
HON 120H Service Learning (1 cr) freshman year
HON 288H Honors Capstone 1: Planning & Research
HON 289H Honors Capstone 2: Writing &
          Presentation

A.S. Degree

6 credits Honors English: ENG 101H and ENG 102H
6 credits Honors Social Science
MAT 205   Calculus 1 *
HON 201H Honors Seminar
          (3 semesters, 1 credit each) **
HON 120H Service Learning (1 cr) freshman year
HON 288H Honors Capstone 1: Planning & Research
HON 289H Honors Capstone 2: Writing &
          Presentation

A.A.S. Degree

6 credits Honors English: ENG 101H and ENG 102H
6 credits Honors Social Science **or**
3 credits Honors Social Science **and**
3 credits Honors Humanities *
MAT 205   Calculus 1 *
HON 201H Honors Seminar
          (3 semesters, 1 credit each) **
HON 120   Service Learning (1 cr) freshman year
HON 288H Honors Capstone 1: Planning & Research
HON 289H Honors Capstone 2: Writing &
          Presentation

** May be fulfilled by taking one of the following math courses **and** one of the following four credit lab science courses, depending upon degree requirements:*

Math: MAT 120 Introduction to Statistics
*   MAT 121 College Algebra*
*   MAT 122 College Trigonometry*
*   MAT 131 Pre-Calculus*
Lab Science: PHY 101 General Physics 1
*   CHM 105 General Chemistry 1*
*   BIO 101 General Biology 1*
*   BIO 143 Field Biology*
*   GLG 110 General Geology*

** The seminar, service and capstone credits are specific requirements of the Honors Program. They also may be counted as Liberal Arts or General Electives. They are restricted to those students who have been admitted into the program.

Program Description

The Honors Program was created to offer highly motivated and talented students an opportunity to develop their potential more fully as they study for the associate degree. Honors courses are selected from the areas of: English, social science, arts, communication, humanities, math, biology, movement science and business. Honors sections of these courses follow the Socratic dialogue format and offer enrichment through alternative texts, outside readings, research projects and abstract concept development beyond the traditional course section. Additionally, students complete three honors seminars, the service course and the capstone project.

The Honors Program is open to both full and part-time degree-seeking students.

Program Learning Outcomes

Students will:

- **Learn and integrate:** Through independent and collaborative learning, acquire and apply knowledge in the liberal arts and sciences, within and across disciplines.

- **Question, think and create:** Use multiple higher order inquiry and thinking strategies to examine real-world issues, explore creative avenues of expression, solve problems and make consequential decisions.

- **Communicate:** Acquire, create and convey intended meaning using oral, written and non-verbal methods of communication that demonstrate respect and understanding in a complex global society.

- **Clarify purpose and perspective:** Explore one's life purpose and meaning through transformational experiences that foster an understanding of and respect for self, relationships, and diverse global perspectives.

- **Practice citizenship:** Apply principles of ethical leadership, collaborative engagement, socially responsible behavior, respect for diversity in an interdependent world, and display a service-oriented commitment to advance and sustain local and global communities.

For expanded Program Learning Outcomes, please visit the Honors web page at www.sunyorange.edu/honors.

Students who already possess a first Honors degree may not seek a second should they pursue a second degree at SUNY Orange.

Students who are are not in the Honors Program but are interested in taking an honors course should contact the Honors Program Coordinator.

Degree Awarded: Associate in Arts, Science or Applied Science

Admission Criteria

All applicants must:

- complete the Honors Program application.

- take the required College Placement Assessment in English and math and place into Freshman English 1. Those who have taken and passed a college-level English class may obtain an Assessment Waiver. Information is available on the College's web site.

- provide two letters of recommendation from faculty, counselors, administrators or mentors.

Additionally:

1. First time college students must be graduates of a college prep high school program with at least one of the following: 1) high school average of 90% at the end of junior year; 2) class rank in the top 10% of the class; 3) combined SAT score of 1200 (math + verbal) or 1800 (3 parts); 4) ACT score of 27.

   Home schooled students and high school equivalency (HSE) diploma holders are welcome to the Honors Program. They must talk with Admissions and the Honors Program Coordinator to discuss eligibility.

2. High school seniors with accumulated college credits:

   a) Between 1 and 11.5 credits must meet the requirements for first time college students and have attained a cumulative average of 3.5 for completed college courses.

   b) Twelve or more credits must meet transfer student requirements.

3. Transfer students with 12 or more credits must have a GPA of 3.5 and provide a three- to five-page typed essay to be evaluated as part of the admissions application.

   Honors courses taken at other colleges will be accepted toward the SUNY Orange Honors Program, where appropriate, following current transfer course guidelines.

   Students may meet an honors English course requirement with a course previously taken at another college with a grade of "A" in an appropriate transfer English course or a grade of 4 in Advanced Placement English from high school. If AP English, student must also submit the essay component of the AP English exam for evaluation; however, the Honors Program required credits must be made up with other honors courses, in consultation with the Program Coordinator.

4. Current SUNY Orange students, including 24 Credit Hour students, must have a GPA of 3.5 and provide an essay to be included with the admissions application for evaluation.

   Note: If students have already achieved an "A" in SUNY Orange's Freshman English 1 and/or 2*, the above noted essay and Honors English 1 and/or 2 requirement will be satisfied. Still, the three or six honors credits must be made up with other honors courses, in consultation with the Program Coordinator.

* Dependent upon major

Transfer Opportunities

Completion of the Honors Program may enhance transfer and scholarship opportunities to more selective colleges and universities and prepare students for the academic work required for continued pursuit of undergraduate and graduate degrees.

Our students have successfully transferred to many prestigious schools including:

- Smith College
- Clemson University
- Rensselear Polytechnic Institute (RPI)
- Vassar College
- Emerson University
- American University
- Cornell University
- Bard College
- Johns Hopkins University

Requirements for Honors Designation

In order for students to show the Honors Designation on their transcripts and seal on their diplomas upon graduation, they must have been accepted to and have attained the following in the Honors Program:

1. Completion of all degree requirements;

2. Achievement of a 3.5 GPA at the time of graduation, with no semester GPA less than 3.0.

Contact Information

Honors Program
Coordinator
(845) 341-4004
Admissions
(845) 341-4030

Human Services

Degree Awarded: Associate in Science

Recommended Course Sequence

First Semester		Credits
ENG 101	Freshman English 1	3
COM 101	Foundations of Communication	3
PSY 111	Introduction to Psychology	3
SOC 101	Introduction to Sociology	3
HMS 101	Intro to Human Services	3
PES 100	Concepts of Physical Wellness	1

Second Semester		
ENG 102	Freshman English 2	3
_____	SUNY American History (GE 4)	3
PSY ___	Psychology Elective ✴	3
_____	SUNY Natural Science (GE 2)	3-4
PHL 220	Ethics	3
PES ____	Physical Education	1

Third Semester		
_____	Restricted Elective #	3
PSY 260	Introduction to Counseling	3
SOC 120	Social Problems	3
MAT 120	Introduction to Statistics	3
HMS 201	Human Services Field Exp 1	2
ENG 160	Technical Writing	1.5

Fourth Semester		
_____	SUNY Western Civilization (GE 5)	3
_____	SUNY Foreign Language (GE 9)	3
_____	SUNY Arts Course (GE 8)	3
SOC 231	Family	3
HMS 202	Human Services Field Exp 2	2
ENG 161	Technical Writing	1.5

Total Credits: 63-64

* *either MAT 102 or (if tested into MAT 120 or higher) MAT 120*

✴ *PSY 220 Developmental Psychology*
PSY 221 Child Psychology
PSY 222 Adolescent Psychology
PSY 230 Abnormal Psychology
PSY 223 Adulthood and Aging

\# *Psychology course*
SUNY Gen Ed course
PED 111 Substance Abuse and Health

This program can be completed in its entirety at either the Middletown campus or the Newburgh campus.

Program Description

The Associate in Science degree program in Human Services prepares graduates to transfer and complete a bachelor's degree in human services, psychology or sociology. Because of the broad liberal arts component, concentration in psychology and sociology with field experiences in at least two human services agencies, the program also prepares the graduate for employment as a direct care worker.

The primary goal of the curriculum is the development of critical thinking and clinical problem solving skills as they relate to populations served by human service agencies. The program offers introductory coursework in human services, psychology and sociology, writing skills directly related to the human services field, and field experiences in at least two human service agencies. Most courses are offered each year, often in the Fall, Spring and Summer semesters. Field Studies in human services are offered each year: Field Studies 1 in the Fall semester, and Field Studies 2 in the Spring. The course of study may be pursued on a part-time basis, daytime or evening.

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admissions process for all applicants.)

Students may begin taking the required program courses upon completion of all required developmental courses. Students are also required to:

- complete two field placement courses, each requiring 48 hours of observation/interaction in at least two human service settings, with a grade of C or better. *If required by the site, a student may need to have a background check, physical, and/or drug test completed before he/she can begin his/her internship.*

- have an overall C average upon completion of all coursework.

- successful internships require commuication with the Internship Coordinator prior to the beginning of the semester.

Human Services

Program Learning Outcomes

Students will:

- Develop a comprehensive portfolio that demonstrates an application of theory, goals, and objectives associated with effective helping strategies and techniques in Human Services.

- Demonstrate appropriate critical thinking and problem solving skills necessary to continue their education toward a four-year degree or effectively gain entry level employment in a human service agency

- Demonstrate an ability to effectively interact with recipients, families, and/or professionals in a manner that demonstrates an application of their academic preparation, and also demonstrates heightened cultural awareness.

This degree has been approved by SUNY NYS Education Department for online distance learning delivery. This does not mean that SUNY Orange offers every course in the program online; however, many are offered in this format. Please check the current credit course schedule for online DL virtual course listings offered each semester.

Career Opportunities

- In-patient and out-patient mental health and rehabilitation facilities such as AHRC, Occupations Inc., RSS and MHA
- State facilities such as MPC, Mid-Hudson and Crystal Run.
- social services agencies

Transfer Opportunities

Many of our graduates transfer to upper-level colleges and universities to pursue advanced degrees in the nursing profession. Successful transfer depends on the courses taken and the student's grade point average. SUNY Orange has special relationships with a number of colleges and universities.

Contact Information

Behavioral Sciences
Department Chair
(845) 341-4344
Admissions Office
(845) 341-4030

International Studies

Degree Awarded: Associate in Arts

Recommended Course Sequence

First Semester		Credits
ENG 101	Freshman English 1	3
COM 101	Foundations of Communication	3
MAT ___	SUNY Math (GE 1)	3-4
GEO 102	Human Geography **or**	
ANT 101	Cultural Anthropology	3
POL 220	Comparative Governments	3
PES 100	Concepts of Physical Wellness	1

Second Semester		
ENG 102	Freshman English 2	3
PSY 111	Introduction to Psychology	3
	SUNY Natural Science (GE 2)	3-4
POL 221	International Relations	3
HIS 121	World History 1	3
PES ___	Physical Education	1

Third Semester		
ENG 203/4	World Literature	3
HIS 122	World History 2	3
	SUNY Art (GE 8)	3
	SUNY Foreign Language (GE 9)	
	(Elementary 2 or above)	3
ECO 201	Macro-Economics	3

Fourth Semester		
ENG 225	International Literature	3
	General Elective	3
	Liberal Arts Science or	
	Math (MAT 113 or higher)	3-4
	Restricted Elective*	3
	Restricted Elective*	3

Total Credits: 62-64

Choose two of the following courses:
COM 211 Intercultural Communications
ECO 203 Economic Development
HIS 220 Modern China and Japan
HIS 222 The Middle East
HIS 223 Latin American History
HIS 224 Africa: Past and Present
HIS 233 Modern Europe
HIS 234 History of Russia and Eastern Europe
_____ Non-Western Art
_____ Foreign Language Intermediate 1 (or higher)
BUS 207 Intro to International Business

Program Description

The Associate in Arts degree program in International Studies provides students with a range of studies that emphasize the interconnections among global political, economic, social, and cultural events and processes. As globalization literally makes the world a smaller place, International Studies helps prepare students to take advantage of those changes, both in terms of their personal growth and career opportunities. The degree is designed to prepare students for transfer and continued academic success within a liberal arts setting, especially one dedicated to the study of international and global events. This program also features a solid grounding in liberal arts education.

The curriculum is designed to include a broad range of courses with international themes in the humanities and social sciences. In addition to core courses in the liberal arts common to many programs, International Studies requires students to take classes in foreign languages, international relations, world history and international literature. Through these courses, students will develop critical learning skills, a foundation of knowledge about the international system and the ability to clearly write, analyze and communicate about concepts in the discipline.

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

Degree Awarded: Associate in Arts

Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- demonstrate foundational knowledge of and an appreciation for the cultural, social, and natural worlds.

- recognize the diversity of human experience, values, and perspectives.

- demonstrate an understanding of the forms of artistic expression and their creative processes.

- apply critical thinking and systematic reasoning skills.

- demonstrate information management, quantitative skills, and an understanding of the role of empirical measurement.

- use effective oral and written communication skills.

- transfer to, and succeed at, an upper-level institution.

- understand the processes that contribute to globalization and increased interdependence among people, governments and states.

Career Opportunities

- language interpreter
- high school teacher
- international business
- international law
- government or diplomatic work
- export-import work

Transfer Opportunities

SUNY Orange has special relationships with upper-level colleges and universities for transfer.

These transfer institutions include:

- four-year SUNY units

- a variety of public and private four-year colleges with whom articulation agreements are under development

Contact Information

Global Studies
Department Chair
(845) 341-4828
Admissions Office
(845) 341-4030

Jointly Registered Teacher Education Program (JRTEP)

Degrees Awarded: Associate in Arts, Associate in Science

Recommended Course Sequence

JRTEP A.S. — B-6 Biology or English or History or Mathematics or Spanish

First Semester		Credits
ENG 101	Freshman English 1 #	3
COM 101	Foundations of Communication	3
_____	Academic Concentration	3-4
MAT 111	Foundations of Teaching Elementary School Mathematics ❖	3
PSY 111	Introduction to Psychology	3

Second Semester		Credits
ENG 102	Freshman English 2 #	3
EDU 103	Introduction to Early Childhood/ Childhood Education ✸◆	3
_____	Academic Concentration	3-4
GEO 101	Elements of Physical Geography	3
PSY 221	Child Psychology	3
_____	SUNY Other/World Civilization (GE 6) *	3

Third Semester		Credits
EDU 109	Language and Literacy Development in the Young Child ◆	3
_____	Academic Concentration	3-4
_____	SUNY Foreign Language 1(GE 9)<	3
EDU 201	Observation and Assessment ✸◆	3
_____	SUNY Arts (GE 8)	3

Fourth Semester		Credits
HIS 101	United States History 1 or	
HIS 102	United States History 2 (GE 4)	3
_____	SUNY Western Civilization (GE 5) *	3
EDU 207	Social and Philosophical Foundations of Education ✸❖	3
_____	SUNY Natural Science (GE 2) ❧	3-4
_____	SUNY Foreign Language 2 (GE 9)<	3
EDU 107	Protecting Children's Well-Being	1
Total Credits:		64-68

\# *Must earn a B or higher for SUNY New Paltz School of Education*

< *If completed Elementary Language 1, must also complete Elementary Language 2 of the same language. If completed Elementary Language 2, must also complete Intermediate Language 1 of the same language. IF completed Intermediate Language 1, no other language need be taken. See Foreign Language instructors for questions concerning placement.*

✸ *Local observations beyond college classroom required.*

* **History** *concentration should choose from SUNY GE 5 and SUNY GE 6 that also meets courses from Approved Academic Concentration Course List.*

❧ **Biology** *concentration should choose from SUNY GE 2 that also meets courses from Approved Academic Concentration Course List.*

❖ **Math** *concentrations must earn a B- or higher in MAT 111*

◆ *Must earn a B- or higher for SUNY New Paltz*

❖ *Must earn a C or higher*

Approved Academic Concentration Courses

Biology Concentration

Required:
BIO 101 (GE 2) **and** BIO 102 (GE 2)

Choose one (1) of the following courses:
BIO 143 (GE 2)
BIO 146
BIO 148 (GE 2)

And choose one (1) of the following courses:
BIO 201
BIO 202
BIO 204 (GE 2)
BIO 205 (GE 2)

English Concentration

Choose one (1) of the following courses:
ENG 207
ENG 208

Choose one (1) of the following courses:
ENG 209
ENG 210

Choose one (1) of the following courses:
ENG 203
ENG 204
ENG 211
ENG 212

History Concentration

Choose three (3) in addition to the history courses required to satisfy GE requirements:
HIS 101 (GE 4)   HIS 102 (GE 4)

HIS 121 **or** HIS 122 *(not both)*

HIS 231 (GE 5)   HIS 220 (GE 6)
HIS 233 (GE 5)   HIS 221 (GE 6)

Mathematics Concentration

Required:
MAT 205 ◆ **and** MAT 206

Choose one (1) of the following courses:
MAT 120
CSC 101

Spanish Concentration

Choose three (3) consecutively in addition to the two (2) Foreign Language requirements (GE 9):
SPN 201
SPN 202
SPN 203
SPN 204

Jointly Registered Teacher Education Program (JRTEP)

Degree Awarded: Associate in Arts, Associate in Science

Program Description

The Associate in Arts or Associate in Science degree in this Jointly Registered Teacher Education Program (JRTEP) is primarily for students who plan to transfer to SUNY New Paltz or another SUNY school and become certified to teach in New York State in either Early Childhood, Childhood or Adolescent Education. Developed by Orange County Community College and SUNY New Paltz, this jointly registered liberal arts/teacher education program has been approved by the New York State Education Department. Students in this program are, at the same time, given priority status for admission consideration into The College at New Paltz. Upon successful completion of the A.A. or A.S. degree at SUNY Orange, with a minimum 3.0 grade point average, students who are accepted will transfer to SUNY New Paltz with full junior standing in order to complete the bachelor's degree.

The primary focus of the JRTEP concentration is to develop and integrate critical thinking, problem solving, and creative skills with information and theories about education. Coupled with a broad general liberal arts foundation, JRTEP students will experience between 10 and 80 hours of observation in local schools and centers. This field work provides excellent practical application opportunities.

Students planning to transfer to other institutions or SUNY four-year schools may also benefit from these courses. They should see their advisor and check transfer credits with transfer school if other than SUNY New Paltz.

Admissions Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

Before beginning their coursework, JRTEP students must choose an age level: birth to sixth grade (B-6), or seventh to twelfth grade (7-12).

Then, students must choose an educational concentration:

- Biology (available in B-6 or 7-12)
  OR
- English (available in B-6 or 7-12)
  OR
- History (available in B-6)
  OR
- Mathematics (available in B-6 or 7-12)
  OR
- Social Studies (available in 7-12)
  OR
- Spanish (available in B-6 or 7-12)

Note: Because teacher education programs and the New York State Education Department certification regulations are precisely defined, it is essential that JRTEP students work closely with both their SUNY Orange advisor and their New Paltz advisor, who is on the SUNY Orange campus by appointment.

Career Opportunities

- public school classroom teacher (pre-K through grade 12
- positions in related educational fields, such as special education teacher, and guidance counselor

Transfer Opportunities

JRTEP is specifically designed to transfer seamlessly to SUNY New Paltz. Other SUNY and non-SUNY schools with teaching preparatory programs may accept all or a large percentage of credits (see transfer criteria below left).

When JRTEP students successfully complete the A.A. or A.S. at SUNY Orange, they may apply for transfer to SUNY New Paltz to complete the bachelor's degree. JRTEP applicants are given priority review and the highly academically prepared student will be accepted first.

Contact Information

Education
Department Chair
(845) 341-4486
Admissions Office
(845) 341-4030

Jointly Registered Teacher Education Program (JRTEP)

Degree Awarded: Associate in Arts, Associate in Science

Program Learning Outcomes

Students will:

- Demonstrate an awareness of and a beginning understanding of the teaching profession and articulate a beginning philosophy of education that incorporates an understanding of developmentally appropriate practices, relevant theories and models of education.

- Students will demonstrate an understanding of diversity and its role in education.

- Demonstrate foundational knowledge and skills in one's chosen area of academic concentration.

- Demonstrate foundational knowledge of and an appreciation for the cultural, social, and natural worlds

- Demonstrate college level proficiency in written and oral communication, critical thinking, and analytical, mathematical, and scientific reasoning.

Transfer Criteria:

To be eligible for admission to SUNY New Paltz, SUNY Orange JRTEP students must:

- Complete all SUNY Orange degree program requirements.
- Complete SUNY-mandated General Education Requirements.
- Maintain a minimum cumulative GPA of 3.0.
- Earn a grade of "B" or better in ENG 101 and ENG 102.
- Earn a grade of "B-" or better in EDU 103, EDU 109, and EDU 201.
- Math concentrations must earn a "B-" or better in either MAT 134 or MAT 205 and MAT 111.
- Must earn a grade of C or better in EDU 207, PSY 221, GEO 101, and MAT 111.
- Earn a grade of "C-" or better in all other courses.
- Complete a separate application and/or procedures for SUNY New Paltz or other transfer institution.
- Submit a writing sample to be completed at SUNY New Paltz prior to acceptance.
- Show evidence of clearance of fingerprinting on NYS Education Department TEACH account.

JRTEP A.S. —7-12 Biology

First Semester		Credits
ENG 101	Freshman English 1 #	3
_____	Restricted SUNY Gen Ed Elective *	3
PSY 111	Introduction to Psychology	3
BIO 101	General Biology 1	4
MAT 205	Calculus 1	4

Second Semester		Credits
ENG 102	Freshman English 2 #	3
_____	Restricted SUNY Gen Ed Elective *	3
PSY 222	Psychology of Adolescence	3
BIO 102	General Biology 2	4
CHM 105	General Chemistry 1	4
EDU 107	Protecting Children's Well-Being	1

Third Semester		Credits
_____	Restricted SUNY Gen Ed Elective *	3
BIO 201	Genetics	4
CHM 106	General Chemistry 2	4
_____	SUNY Foreign Language (GE 9)<	3
EDU 207	Social and Philosophical Foundations of Education ✯❖	3

Fourth Semester		Credits
COM 101	Foundations of Communication	3
BIO 202	Comparative Vertebrate Anatomy **or**	
BIO 204	General Botany	4
MAT 120	Introduction to Statistics	3
_____	SUNY Foreign Language (GE 9)	3
_____	SUNY Arts (GE 8)	3
	Total Credits: 68	

* Students must take one course from each of the following SUNY General Education Requirements: American History (GE 4); Western Civilization (GE 5); Other/World Civilizations (GE 6)

< If completed Elementary Language 1, must also complete Elementary Language 2 of the same language. If completed Elementary Language 2, must also complete Intermediate Language 1 of the same language. If completed Intermediate Language 1, no other language need be taken.

✯ Local observations beyond college classroom required

\# Must earn grade of B or higher for SUNY New Paltz School of Education

❖ Must earn a C or higher

Jointly Registered Teacher Education Program (JRTEP)

Degree Awarded: Associate in Arts, Associate in Science

JRTEP A.A. — 7-12 English

First Semester		Credits
ENG 101	Freshman English 1#	3
COM 101	Foundations of Communication	3
HIS 101	United States History 1 or	
HIS 102	United States History 2	3
_____	SUNY Math (GE 1) - (MAT102 or higher)	3
_____	SUNY Foreign Language (GE 9)<	3
EDU 107	Protecting Children's Well-Being	1

Second Semester		Credits
ENG 102	Freshman English 2#	3
_____	SUNY Arts (GE 8)	3
PSY 111	Introduction to Psychology	3
_____	SUNY Natural Science (GE 2)	3-4
_____	SUNY Foreign Language (GE 9)<	3

Third Semester		Credits
ENG 207	English Literature: 14th Through 18th Century	3
ENG 209	American Literature: To the Civil War	3
ENG ___	Restricted English Elective ▲	3
ENG ___	Restricted English Elective ▲	3
PSY 222	Psychology of Adolescence	3
EDU 207	Social and Philosophical Foundations of Education ✮❖	3

Fourth Semester		Credits
ENG 208	English Literature: 19th and Early 20th Century	3
ENG 210	American Literature: 1865 to Present	3
ENG ___	Restricted English Elective ▲	3
_____	SUNY Western Civilization (GE 5)	3
_____	SUNY Other World Civilization (GE 6)	3
_____	Add'l Math (MAT 102 or higher), **or** Liberal Arts Science **or** Computer Science	3-4
	Total Credits: 67-69	

▲ *Choose from the following: ENG 120, ENG 203, ENG 204, ENG 205, ENG 206, ENG 211, ENG 212, ENG 215, ENG 216, ENG 217, ENG 220, ENG 221, ENG 222, ENG 223, ENG 225, ENG 226 , ENG 230, ENG 297*

< *If completed Elementary Language 1, must also complete Elementary Language 2 of the same language. If completed Elementary Language 2, must also complete Intermediate Language 1 of the same language. If completed Intermediate Language 1, no other language need be taken.*

✮ *Local observations beyond college classroom required.*

Must earn grade of B or higher for SUNY New Paltz School of Education

❖ *Must earn a C or higher*

JRTEP A.S. — 7-12 Mathematics

First Semester		Credits
ENG 101	Freshman English 1 #	3
COM 101	Foundations of Communication	3
PSY 111	Introduction to Psychology	3
MAT 205	Calculus 1	4
_____	SUNY Foreign Language (GE 9)	3
EDU 107	Protecting Children's Well-Being	1

Second Semester		Credits
ENG 102	Freshman English 2#	3
PSY 222	Psychology of Adolescence	3
MAT 206	Calculus 2	4
_____	SUNY Foreign Language (GE 9)<	3
EDU 207	Social and Philosophical Foundations of Education ✮❖	3

Third Semester		Credits
_____	Restricted SUNY Gen Ed Elective *	3
PHY 105	General Physics 1 with Calculus	4
MAT 211	Linear Algebra	3
MAT 207	Calculus 3	4
_____	SUNY Arts (GE 8)	3

Fourth Semester		Credits
MAT 134	Mathematical Reasoning and Proof **or**	
MAT 136	Intro to Discrete Mathematics	3
_____	Restricted SUNY Gen Ed Elective *	3
_____	Restricted SUNY Gen Ed Elective *	3
PHY 106	General Physics 2 with Calculus	4
CSC 130	Computers and Computing	3
	Total Credits: 66	

* *Students must take one course from each of the following SUNY General Education Requirements: American History (GE 4); Western Civilization (GE 5); Other/World Civilizations (GE 6)*

< *If completed Elementary Language 1, must also complete Elementary Language 2 of the same language. If completed Elementary Language 2, must also complete Intermediate Language 1 of the same language. If completed Intermediate Language 1, no other language need be taken.*

✮ *Local observations beyond college classroom required*

Must earn grade of B or higher for SUNY New Paltz School of Education

❖ *Must earn a C or higher*

Jointly Registered Teacher Education Program (JRTEP)

Degree Awarded: Associate in Arts, Associate in Science

JRTEP A.A.—7-12 Social Studies

First Semester		Credits
ENG 101	Freshman English 1#	3
HIS 101	United States History 1	3
PSY 111	Introduction to Psychology	3
_____	SUNY Math (GE 1) - (MAT102 or higher)	3
_____	SUNY Natural Science (GE 2)	3-4
EDU 107	Protecting Children's Well-Being	1

Second Semester		Credits
ENG 102	Freshman English 2#	3
COM 101	Foundations of Communication	3
HIS 102	United States History 2	3
PSY 222	Psychology of Adolescence	3
_____	SUNY Arts (GE 8)	3

Third Semester		Credits
GEO 102	Human Geography	3
ECO 201	Introduction to Macroeconomics	3
HIS 231	Medieval and Renaissance Europe	3
_____	SUNY Foreign Language (GE 9) <	3
EDU 207	Social and Philosophical Foundations of Education ✫❖	3

Fourth Semester		Credits
ECO 202	Introduction to Microeconomics	3
HIS ____	Restricted SUNY Social Science ▲	3
POL ____	Restricted SUNY Social Science *	3
POL ____	Restricted SUNY Social Science *	3
_____	Add'l Math (MAT 102 or higher) or Liberal Arts Science or Computer Science	3-4
_____	SUNY Foreign Language (GE 9)<	3
	Total Credits: 64-66	

* *Choose from the following: POL 102, POL 103, POL 221*
▲ *Choose from the following: HIS 221, HIS 222, HIS 223*
< *If completed Elementary Language 1, must also complete Elementary Language 2 of the same language. If completed Elementary Language 2, must also complete Intermediate Language 1 of the same language. If completed Intermediate Language 1, no other language need be taken.*
✫ *Local observations beyond college classroom required*
Must earn grade of B or higher for SUNY New Paltz School of Education
❖ *Must earn a C or higher*

JRTEP A.A. — 7-12 Spanish

First Semester		Credits
ENG 101	Freshman English 1 #	3
COM 101	Foundations of Communication	3
HIS 101	United States History 1 **or**	
HIS 102	United States History 2	3
PSY 111	Introduction to Psychology	3
SPN 201	Intermediate Spanish 1	3

Second Semester		Credits
ENG 102	Freshman English 2 #	3
PSY 222	Psychology of Adolescence	3
_____	SUNY Natural Science (GE 2)	3-4
SPN 202	Intermediate Spanish 2	3
EDU 207	Social and Philosophical Foundations of Education ✫❖	3
EDU 107	Protecting Children's Well-Being	1

Third Semester		Credits
ENG ___	Restricted English Elective ▲	3
_____	SUNY Western Civilization (GE 5)	3
SOC 120	Social Problems	3
_____	SUNY Math (GE 1) - (MAT102 or higher)	3
SPN 203	Spanish Conversation and Comp.	3

Fourth Semester		Credits
ENG __	Restricted English Elective ▲	3
HIS 223	Latin American History	3
_____	Add'l Math (MAT 102 or higher), or Liberal Arts Science or Computer Science	3-4
SPN 204	Introduction to Spanish Lit.	3
_____	SUNY Arts (GE 8)	3
	Total Credits: 61-63	

▲ *Choose from the following: ENG 120, ENG 203, ENG 204, ENG 205, ENG 206, ENG 211, ENG 212, ENG 215, ENG 216, ENG 217, ENG 220, ENG 221, ENG 222, ENG 223, ENG 225, ENG 226, ENG 230, ENG 297*
✫ *Local observations beyond college classroom required*
Must earn grade of B or higher for SUNY New Paltz School of Education
❖ *Must earn a C or higher*

This page intentionally left blank

Law Enforcement/Security

Degree Awarded: Certificate

Recommended Course Sequence

First Semester	Credits
CRJ 101 Criminal Justice	3
CRJ 211 Criminal Law	3
CRJ 106 Patrol Administration	3
CRJ 107 Industrial & Private Security	3
CRJ 215 Criminal Investigation 1	3
Second Semester	
POL 102 U. S. Gov't-State & Local	3
SOC 120 Social Problems	3
CRJ 105 Police-Community Relations	3
CRJ 111 Criminology	3
CRJ 216 Criminal Investigation 2	3

Total Credits: 30

Program Description

The Law Enforcement/Security certificate program is designed for students who are interested in a career in law enforcement or industrial security. The program provides an analysis of the close relationship between the public and private sector and their importance in providing a secure and safe environment for our citizens. The program emphasizes the methods, procedures and techniques that are utilized in the area of private security and current security-related issues such as loss prevention, disaster preparation, business continuity and homeland security. The program provides the student with an in-depth knowledge of police-related issues such as criminal law, patrol operations and criminal investigations.

Students who complete this program will be certified to seek employment as security officers with local or state security agencies.

Admissions Requirements

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

This degree has been approved by SUNY NYS Education Department for online distance learningdelivery. This does not mean that SUNY Orange offers every course in the program online; however, many are offered in this format. Please check the current credit course schedule for online DL virtual course listings offered each semester.

Degree Awarded: Certificate

Program Learning Outcomes

Students will:

- identify and assess current issues in security and security management.

- be able to identify relevant issues of constitutional, procedural, and substantive law and their impact on security systems.

- be able to understand the importance of crime scene protection and be able to demonstrate the proper methods of gathering and presenting evidence properly.

- provide specific courses which meet New York State requirements for certification as a security officer.

This degree has been approved by SUNY NYS Education Department for online distance learning delivery. This does not mean that SUNY Orange offers every course in the program online; however, many are offered in this format. Please check the current credit course schedule for online DL virtual course listings offered each semester.

Career Opportunities

- uniformed security officer
- plainclothes security officer
- loss prevention analyst
- risk analyst
- hotel security
- industrial security
- executive protection

Transfer Opportunities

Although this is a certificate program designed for immediate entry into the workplace, credits can be applied to further college study.

Consult a department advisor for more information.

Contact Information

Criminal Justice
Department Chair
(845) 341-4355
Admissions Office
(845) 341-4030

Liberal Arts: Humanities and Social Science

Degree Awarded: Associate in Arts

Recommended Course Sequence

First Semester		Credits
ENG 101	Freshman English 1	3
_____	SUNY Math (GE 1)	3-4
_____	Social Science (Cat. A)*	3
COM 101	Foundations of Communication	3
_____	Liberal Arts Elective	3
PES 100	Concepts of Physical Wellness	1

Second Semester		
ENG 102	Freshman English 2	3
_____	SUNY Natural Science (GE 2)	3-4
_____	Social Science (Cat. B)	3
_____	Restricted SUNY Elective**	3
_____	Liberal Arts elective	3
PES ____	Physical Education	1

Third Semester		
ENG __	200-level Advanced English	3
_____	Math/Liberal Arts Science***	3-4
_____	Social Science (Cat. C)	3
_____	Liberal Arts elective	3
_____	SUNY Arts (GE 8)	3

Fourth Semester		
ENG___	200-level Advanced English	3
_____	Social Science (Cat D)	3
_____	Elective	3
_____	Elective	3
_____	Elective	3

Total Credits: 62-65

*Categories A-D must include a SUNY History (GE 4, GE 5 or GE 6) and a SUNY Social Science (GE 3).
**SUNY Humanities (GE 7) list or SUNY Foreign Language (GE 9) list-Elementary 2 level or above.
*** MAT 102 or higher. Lab science not required.

See SUNY Transfer Path link for information about recommended courses –
www.suny.edu/attend/get-started/transfer-students/suny-transfer-paths/suny-transfer-paths-all-2015/

This program can be completed in its entirety at either the Middletown campus or the Newburgh campus.

Program Description

At Orange County Community College, areas of study under the Associate in Arts degree span a wide range of academic interests. Typically, these areas include specific studies in the social sciences, humanities, communication, education, the arts, and criminal justice. For more specific information, consult the individual Associate in Arts program descriptions within this catalog. Students should also meet regularly with their advisors to determine the best course of study for their particular area of interest.

In addition to taking courses in their particular area of interest, students are required to successfully complete a number of General Education courses as mandated by the State University of New York. These General Education areas include: math, natural sciences, social sciences, American history, western civilization, world civilizations, humanities, the arts, foreign language and communication.

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

Liberal Arts: Humanities and Social Science

Degree Awarded: Associate in Arts

Program Learning Outcomes

Students will:

- demonstrate foundational knowledge of and an appreciation for the cultural, social, and natural worlds.
- recognize the diversity of human experience, values, and perspectives.
- demonstrate an understanding of the forms of artistic expression and their creative processes.
- apply critical thinking and systematic reasoning skills.
- demonstrate information management, quantitative skills, and an understanding of the role of empirical measurement.
- use effective oral and written communication skills.
- transfer to, and succeed at, an upper-level institution.

Career Opportunities

The Associate in Arts degree program serves as a foundation for students who will complete their bachelor's degree at a four- year institution. They may then pursue careers in a number of areas, including:

- the social sciences
- the arts
- the humanities
- education and communication

In addition, successful completion of a bachelor's degree can also lead to continued study on the graduate level. For a more complete list of career opportunities, consult the individual Associate in Arts program descriptions in this catalog.

Transfer Opportunities

SUNY Orange has special relationships with upper-level colleges and universities for transfer.

These transfer institutions include:

- four-year institutions in the State University of New York (SUNY) system
- private NYS and national four-year institutions

To provide for a smooth transfer, students should consult with both their academic advisors and the potential transfer institutions for academic course selection and guidance as soon as possible.

Contact Information

Advising and Counseling Center
(845) 341-4070
Admissions Office
(845) 341-4030

Liberal Arts: Individual Studies

Degree Awarded: Associate in Science

Recommended Course Sequence

First Semester		Credits
ENG 101	Freshman English 1	3
_____	Restricted SUNY Elective*	3
MAT ___	Found. of Elementary School Math (MAT 111) or Higher	3
_____	Restricted SUNY History**	3
COM 101	Foundations of Communication	3
PES 100	Concepts of Physical Wellness	1

Second Semester		
ENG 102	Freshman English 2	3
_____	SUNY Humanities (GE 7)	3
_____	SUNY Natural Science (GE 2)	3-4
_____	SUNY Social Science (GE 3)	3
_____	Concentration	3
_____	Physical Education	1

Third Semester		
_____	Math/Science Elective***	3-4
_____	SUNY Social Science (GE 3)	3
_____	Concentration	3
_____	Concentration	3
_____	Concentration	3

Fourth Semester		
_____	Concentration	3
_____	Concentration	3
_____	Restricted SUNY Elective****	3
_____	Elective	3
_____	Elective	3

Total: 62-64

*SUNY Humanities (GE 7), SUNY Arts (GE 8), or SUNY Foreign Language (GE 9)
** HIS 101, HIS 102, HIS 121, HIS 122, HIS 130, HIS 131, HIS 132, or HIS 133
*** Math must be MAT 113 or higher, or any liberal arts science
****SUNY Arts (GE 8) or SUNY Foreign Language (GE 9) Elementary 2 or higher

See SUNY Transfer Path link for information about recommended courses –
www.suny.edu/attend/get-started/transfer-students/suny-transfer-paths/suny-transfer-paths-all-2015/

This program can be completed in its entirety at either the Middletown campus or the Newburgh campus.

Program Description

The Associate in Science degree program in Individual Studies is a transfer degree program designed for those students whose goals are not adequately addressed by one of the College's other programs. Its purpose is to allow students to shape a program to meet their individual needs.

The program is divided into three components: core requirements, concentration area and electives. Core requirements are intended to provide students with a firm general education foundation through exposure to the three traditional areas of liberal arts study–humanities, social science and sciences–and development of communication and computational skills. The concentration area is comprised of course work reflecting the individual's educational objectives. The elective component provides the student with the flexibility to build upon the special area of study.

Admission Criteria

Prior to the sophomore year (30 credits), the student is required to submit an Individual Studies Program Plan. This form, available in the Advising and Counseling Center, requires a 250 word statement of the student's educational, transfer and career objectives. Based on these objectives, the student and advisor will select the courses to fulfill the concentration and elective component of the degree. The Program Plan will then be submitted to the appropriate Associate Vice President in Academic Affairs. On approval of the plan, a faculty advisor whose academic background is appropriate to the student's area of concentration will be assigned to assist in the next phase of study.

This degree has been approved by SUNY NYS Education Department for online distance learningdelivery. This does not mean that SUNY Orange offers every course in the program online; however, many are offered in this format. Please check the current credit course schedule for online DL virtual course listings offered each semester.

Liberal Arts: Individual Studies

Degree Awarded: Associate in Science

Program Learning Outcomes

Students will:

- demonstrate their broad base of knowledge in the liberal arts and sciences by evoking critical thinking skills in drawing reasonable conclusions from evaluated data.

- develop a foundation of essential knowledge about the cultural, social and natural worlds, and individual well-being.

- demonstrate a mastery of communication skills, both written and oral.

- understand the commonalities and diversity of the human experience, values and opinions.

- apply systematic reasoning and develop information management quantitative skills.

- be prepared to transfer to an upper-level institution.

This degree has been approved by SUNY NYS Education Department for online distance learning delivery. This does not mean that SUNY Orange offers every course in the program online; however, many are offered in this format. Please check the current credit course schedule for online DL virtual course listings offered each semester.

Career Opportunities

The Individual Studies degree program serves as a base for students who plan to continue their education at a four-year institution.

Because of the flexibility of the degree, students have the option of developing a career path of their choice early in their educational experience.

Transfer Opportunities

SUNY Orange has special relationships with upper-level colleges and universities for transfer.

These institutions include:

- four year institutions in the State University of New York (SUNY) system

- private state and national four-year institutions

Contact Information

Advising and Counseling Center
(845) 341-4070
Admissions Office
(845) 341-4030

Liberal Arts and Sciences: Mathematics and Science

Degree Awarded: Associate in Science

Recommended Course Sequence

First Semester		Credits
ENG 101	Freshman English 1	3
_____	SUNY Social Science (GE 3)	3
_____	SUNY Natural Science (GE 2) +	3
_____	MAT 111 or higher or Computer Science or Liberal Arts Science +	3
_____	SUNY Math (GE 1) - MAT 121 or higher +	3

Second Semester		
ENG 102	Freshman English 2	3
HIS____	Restricted History Elective*	3
_____	SUNY Natural Science (GE 2) +	3
_____	MAT 111 or higher **or** Computer Science **or** Liberal Arts Science +	3
MAT ___	MAT 122 or higher +	3

Third Semester		
COM 101	Foundations of Communication	3
_____	MAT 111or higher **or** Computer Science **or** Liberal Arts Science +	3
_____	MAT 111or higher **or** Computer Science **or** Liberal Arts Science +	3
_____	Restricted SUNY Elective #	3
_____	Elective	3

Fourth Semester		
_____	MAT 111 or higher **or** Computer Science **or** Liberal Arts Science +	3
_____	MAT 111or higher **or** Computer Science **or** Liberal Arts Science +	3
_____	Elective	3
_____	Elective	3
_____	Elective	3

Total Credits: 60

*   *SUNY American History (GE 4) or Western Civilization (GE 5) or Other/World Civilization (GE 6) lists*
\#   *SUNY Arts (GE 8)or Foreign Language (GE 9)lists*
\+   *Minimum credit value for this course is 3 credits. Students may fulfill this requirement with a course of a higher credit value.*

A minimum of 30 credits of math and science combined is required for this degree. At least 6 credits of math must be College Algebra (MAT 121) or higher, at least 3 credits of which must be a SUNY Math and at least 6 credits of science must be from the SUNY Natural Science list.

See SUNY Transfer Path link for information about recommended courses –
www.suny.edu/attend/get-started/transfer-students/suny-transfer-paths/suny-transfer-paths-all-2015/

Program Description

The Associate in Science degree program in Liberal Arts and Sciences with a Mathematics and Science emphasis is designed specifically for students to transfer, with junior status, to the appropriate upper-level college or university of their choice, where they can complete the B.S./B.A. degree in their chosen field of study. As such, the program provides core courses and general education requirements that would be included in the first two years of study at four-year institutions. This degree gives mathematics/science students the flexibility to match a program to their individual goals, backgrounds and talents. The various curricula provide the opportunity to pursue a variety of academic and career interests in mathematics and in the natural/physical sciences.

The course distribution in mathematics and science is designed to provide a solid foundation in the basics of natural and physical sciences/mathematics: future advanced coursework will build on this foundation. The general education elective credits round out the curriculum in this degree program. Students should consult the appropriate department chairperson and faculty for specific advice about pursuing a particular discipline within this area. Only such consultation will guarantee the correct level of course choice and rigor required to match the student's transfer plans as they work toward a bachelor's degree.

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

Before initiating study for this A.S. degree a student must have achieved a mathematical proficiency which includes intermediate level algebra. At SUNY Orange, this means that a student must have tested beyond Intermediate Algebra (MAT 102) to begin progress toward this degree. If this is not the case the student must speak with an advisor in order to choose the proper preparatory courses.

Liberal Arts and Sciences: Mathematics and Science

Degree Awarded: Associate in Science

Program Learning Outcomes

Students will:

- demonstrate essential and foundational knowledge in the natural sciences and liberal arts.

- demonstrate understanding of the methods scientists use to explore natural phenomena, including observation, hypothesis development, measurement and data collection, experimentation, evaluation of evidence, and employment of mathematical analysis

- perform mathematically with proper notation and vocabulary commensurate with chosen field of study

- demonstrate ability to apply systematic reasoning and critical thinking skills.

- demonstrate effective communication both oral and written.

Career Opportunities

- professional degrees or working in private sector firms in the various fields
- R&D or laboratory opportunities in private and public sector
- positions in education on primary or secondary level
- excellent background for other fields requiring mathematics/science proficiency, including:
  - biology
    - pre-professional training for medicine, dentistry, veterinary science, pharmacy, etc.
    - environmental sciences
    - Teaching or research
  - chemistry
  - geology
  - mathematics
  - physics/astronomy

Transfer Opportunities

SUNY Orange has special relationships with upper-level colleges and universities for transfer. Students regularly transfer with junior status to colleges and universities in the State University of New York System as well as to private and state colleges and universities across the country.

Contact Information

Biology Department Chair
(845) 341-4124
Mathematics Department Chair
(845) 341-4566
Science, Engineering and Architecture Department Chair
(845) 341-4571
Admissions Office
845) 341-4030

Marketing

Degree Awarded: Associate in Applied Science

Accredited by the Accreditation Council for Business Schools and Programs (ACBSP)
7007 College Boulevard, Suite 420, Overland Park, KS, 66211

Recommended Course Sequence

First Semester		Credits
ENG 101	Freshman English 1	3
_____	Math or Liberal Arts Science	3
OFT 106	Keyboarding**	1
BUS 161	Computer Applications for Business	3
ACC 101	Accounting 1	4
BUS 103	Introduction to Business	3
Second Semester		
ENG 102	Freshman English 2	3
_____	Any Social Science	3
_____	Math or Liberal Arts Science	3
BUS 101	Business Math	3
MKT 101	Principles of Marketing	3
Third Semester		
MKT 115	E-Marketing Principles	3
BUS 201	Business Law 1	3
MKT 203	Marketing Management	3
MKT 201	Advertising	3
BUS 105	Business and Society	3
Fourth Semester		
_____	Any Social Science	3
MKT 204	Problems in Marketing	3
BUS 203	Business Communications	3
MKT 202	Salesmanship *or*	
MGT 220	Business Internship *	3
ART 123	Visual Comm & Graphic Design 13	
	Total Credits:	**62**

*It is strongly recommended that students with at least a 2.50 CQPA register for MGT 220. Approval of the department chair is required to register for this course.
**Students with sufficient keyboarding ability who pass the keyboarding waiver exam will fulfill this requirement; they do not need to replace the 1 credit.

Program Description

The Associate in Applied Science degree program in Marketing prepares graduates for immediate entry into positions ranging from entry level to marketing management. Students develop interpersonal and conceptual skills such as communication, decision making and problem solving.

The primary focus of the curriculum is on marketing strategy, selling techniques, advertising procedures and international marketing. This well-balanced program includes a marketing core, accounting, computer information systems, law and liberal arts courses. Students will be involved in developing marketing plans, creating advertising, presenting sales presentations, and participating in both group and individual projects designed to enhance their skills.

Business Department faculty are well-trained and experienced in their areas of expertise, and highly motivated to work with students, helping them to succeed in their quest for a job. Many students complete this degree and transfer to four-year colleges to earn a bachelor's degree; however, students who have this objective are advised that they may suffer transfer credit losses due to the concentration of business courses.

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

This degree has been approved by ACBSP and SUNY NYS Education Department for online distance learning delivery. This does not mean that SUNY Orange offers every course in the program online; however, many are offered in this format. Please check the current credit course schedule for online DL virtual course listings offered each semester.

Marketing

Program Learning Outcomes

Students will:

- demonstrate knowledge of marketing principles and applications.
- demonstrate the ability to identify, analyze, and evaluate market segments and strategies.
- express business information effectively in both oral and in written forms.

Career Opportunities

- advertising
- marketing and manufacturing
- marketing service
- marketing research
- public relations
- sales
- customer service

Transfer Opportunities

While the A.A.S. is a degree leading to immediate job placement upon graduation, SUNY Orange has special relationships with Franklin University for transfer to a B.S. degree in marketing, business administration or human resource management .

Other transfer opportunities exist with:

- Franklin University
- Mount St. Mary College
- Ramapo College
- SUNY Empire State

Contact Information

Business Department Chair
(845) 341-4411
Admissions Office
(845) 341-4030

Medical Laboratory Technician

Degree Awarded: Associate in Applied Science

Accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)
5600 N. River Road, Suite 720, Rosemont, IL 60018-5119   (773) 714-8880, www.naacls.org

Recommended Course Sequence

First Semester	Credits
ENG 101 Freshman English 1	3
CHM 103 Applied Chemistry 1	3
MAT ___ Math (Elementary Algebra or Higher)	3
MLT 101 Fundamentals of Medical Physiology	4
MLT 103 Immunology	3
MLT 105 Intro to Lab Science	2

Second Semester	
ENG 102 Freshman English 2	3
_____ Social Science Elective	3
CHM 104 Applied Chemistry 2	3
MLT 102 Urinalysis and Body Fluids	3
MLT 104 Hematology	4

Third Semester	
_____ Social Science Elective	3
MLT 203 Immunohematology	3
MLT 207 Clinical Chemistry 1	3
MLT 209 General Microbiology	4
MLT 251 Clinical Training 1	2
PES 100 Concepts of Wellness	1

Fourth Semester	
MLT 208 Clinical Chemistry 2	3
MLT 212 Clinical Microbiology	3
MLT 252 Clinical Training 2	5
PES ___ Physical Education	1
MLT 200 Clinical Applications and Review	2
Total Credits:	64

Program Description

The Associate in Applied Science degree program in Medical Laboratory Technician prepares students to become certified and licensed as medical laboratory technicians.

A medical laboratory technician is a healthcare professional who performs general testing on biological specimens such as blood, urine, various body fluids and tissues in the medical laboratory. The results of these analyses are utilized to determine the presence, absence, progress and causes of disease. A medical laboratory technician, also known as a clinical laboratory technician, enjoys science, problem solving and investigation, and performs his/her work accurately, efficiently and responsibly. The medical laboratory technician must be able to perform several duties simultaneously, work well in a fast-paced laboratory and be self-motivated.

The Medical Laboratory Technician Program curriculum corresponds to the program's mission: it provides each student with educational experiences and knowledge to develop the critical thinking, technical and interpersonal skills required to be a successful clinical laboratory scientist. The program will integrate knowledge gained from general education, biological science and clinical laboratory science so that the future laboratory professional will exercise good judgment, ethics and appropriate decision-making abilities to serve the needs of the community and the profession.

Students will take courses in the following disciplines: medical physiology, clinical chemistry, hematology, urinalysis, immunology, immunohematology and microbiology. Students study laboratory safety, microscopy and clinical instrumentation and apply the principles in the laboratory. As part of the program, a clinical rotation is assigned at one of the clinical affiliates.

The program begins in the fall semester of each year and the courses must be taken in the sequence in which they are offered. A grade of C (2.00) or better is required in all MLT courses for progression in the program and graduation with an A.A.S. degree in Medical Laboratory Technician. Once you begin taking MLT courses, the degree must be completed within three years.

Students who are considering this program must provide their own transportation to and from the college and clinical sites. They must also have a yearly physical examination and tuberculin skin test (TST). Upon admission to the program, students will need to successfully complete a urine drug screen as well as a criminal background check. The Hepatitis B vaccine is strongly recommended. An individual who has charges pending or has ever been convicted of a felony or misdemeanor and/or has been found guilty of professional misconduct or negligence may not be eligible for licensure. Contact the Office of Professional Discipline, New York State Education Department prior to applying to this program.

Medical Laboratory Technician

Degree Awarded: Associate in Applied Science

Admission Criteria

Academic Requirements

- High school diploma or high school equivalency (HSE) diploma
- Eligible to take Freshman English I (ENG 101)
- Eligible to take Elementary Algebra (MAT 101) or have successfully completed Fundamentals of Algebra (MAT 020)
- Students must attain a minimum cumulative GPA of 2.0

Department-Specific Requirements:

- Attendance at a pre-admission orientation. At this orientation, students will receive and sign off on information pertaining to health forms, drug testing, and criminal record policies.

Note: Admission to this program is selective. In addition to an application to the College, students must apply for acceptance into this program through the Admissions office. Consideration for admission is based on the completion of all mandatory academic and departmental-specific requirements, highest combination of CQPA and credits completed towards the degree, Orange County residency and seat availability. All requirements must be completed and an eligibility form must be submitted to the Admissions Office before February 1 in order for a student to be considered for acceptance into this program for the Fall semester.

Program Learning Outcomes

Students will:

- properly collect, process and analyze biological specimens.
- safely and accurately perform analytical procedures, recognize factors affecting results and take the appropriate action.
- Be eligible for national certification as a Medical Laboratory Technician by successfully completing the examination given by the American Society for Clinical Pathology Board of Certification.
- be eligible to sit for the NYS Certified Clinical Laboratory Technician Licensing Examination.

Note: Several essential movement, observational, communication, intellectual and behavioral functions are required to complete the objectives of the courses in the program and to perform the necessary duties required of a medical laboratory technician. A detailed listing of these essential functions is included in the MLT admissions packet and is discussed at the pre-admission orientation session.

Career Opportunities

- hospitals
- doctors' offices
- reference laboratories
- food/cosmetic industries
- pharmaceuticals
- veterinary laboratories
- research
- sales and marketing
- industry
- foresics
- teaching
- management
- field service
- I.T.

Transfer Opportunities

This degree program prepares students for immediate entry into the workplace. Consult the department for more information regarding further educational opportunities in this profession.

Contact Information

Clinical Laboratory Science
Department Chair
(845) 341-4136
Admissions Office
(845) 341-4030

Medical Office Assistant

Degree Awarded: Associate in Applied Science

Accredited by the Accreditation Council for Business Schools and Programs (ACBSP)
7007 College Boulevard, Suite 420, Overland Park, KS, 66211

Recommended Course Sequence

First Semester		Credits
ENG 101	Freshman English 1	3
OFT 108	Intermediate Computer Keyboarding*	3
_____	Math or Liberal Arts Science	3
BUS 103	Introduction to Business	3
ACC 101	Accounting Principles 1	4

Second Semester		
ENG 102	Freshman English 2	3
_____	Social Science Elective	3
OFT 103	Medical Coding	3
_____	Social Science Elective	3
OFT 109	Advanced Computer Keyboarding**	3

Third Semester		
RAD 219	Medical Terminology	1
_____	Health or approved Elective	1-3
OFT 209	Microsoft Word and PowerPoint	3
BUS 203	Business Communications	3
MGT 205	Human Resource Management	3
OFT 207	Transcription Skills** *or*	
OFT 211	Medical Transcription	3

Fourth Semester		
_____	Liberal Arts Elective	3
OFT 214	Excel and Access**	3
OFT 201	Records/Information Management	3
MLT 110	Fundamentals of Medical Physiology	3
OFT 220	Office Internship	3

Total Credits: 60-62

* *Students without sufficient keyboarding ability will be required to take OFT 107 Elementary Keyboarding. Students with sufficient keyboarding ability to pass the waiver for OFT 108 fulfill this requirement with a business elective.*
** *Special medical projects are provided in OFT 109, OFT 207, and OFT 214 for students in this program.*
\+ *Another course must be added to complete the degree such as CPR, First Aid, Stress Management or a business elective. Please see the department chair for other suggestions.*
\# *Students need approval of the department chair to register for this course, and at least a 2.0 CGPA..*

Program Description

The Associate in Applied Science degree program in Medical Office Assistant prepares graduates to begin their careers in medical organizations. Emphasis is placed on developing office skills and knowledge of medical terms.

The medical office assistant provides office support to medical facilities including records management, medical report production, patient interface, insurance and billing responsibilities, telephone interaction, and confidentially.

Students take a sequence of office skill courses including various levels of Keyboarding, Microsoft Word and PowerPoint, Excel and Access, Transcription Skills, Medical Terminology, Physiology, and Medical Coding. Students learn to use modern office equipment and are exposed to realistic office situations through internships. Special medical projects are provided in Advanced Computer Keyboarding, Transcription Skills and Excel and Access.

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

Students without sufficient keyboarding ability will be required to take Elementary Computer Keyboarding. Students with sufficient keyboarding ability to pass the waiver for Intermediate Computer Keyboarding fulfill this requirement with a business elective.

This degree has been approved by ACBSP and SUNY NYS Education Department for online distance learning delivery. This does not mean that SUNY Orange offers every course in the program online; however, many are offered in this format. Please check the current credit course schedule for online DL virtual course listings offered each semester.

Medical Office Assistant

Degree Awarded: Associate in Applied Science

Program Learning Outcomes

Students will:

- demonstrate the ability to keyboard in correct form medical correspondence, which includes letters, memos, forms, reports, tables and statements.

- demonstrate the ability to keyboard straight copy for five minutes with a maximum of three errors.

- effectively communicate both orally and in written documents.

- understand and apply proper medical codes.

- learn critical thinking skills through an analytical business report project.

Career Opportunities

Medical office assistant positions exist in the following fields:
- hospitals
- long-term care
- community agencies
- health maintenance organizations
- government and industry
- physicians' offices
- outpatient services
- military-medical services
- medical laboratories
- imaging centers

Transfer Opportunities

While the A.A.S. is a degree leading to immediate job placement upon graduation, SUNY Orange has a special relationship for transfer to a B.S. degree in Applied Management with Franklin University.

Other transfer of courses exist with:

- Franklin University (to another related degree)

- Mount St. Mary College

- Ramapo College

- SUNY Empire State College

Contact Information

Business Department Chair
341-4411
Admissions Office
(845) 341-4030

New Media

Degree Awarded: Associate in Applied Science

Recommended Course Sequence

First Semester		Credits
ENG 101	Freshman English 1	3
_____	Math or Liberal Arts Science	3
COM 107	Intro to Media Production	3
ART 121	Digital Photography	3
ART 123	Visual Communications	3
_____	Physical Education	.5

Second Semester		
ENG 102	Freshman English 2	3
COM 101	Foundations of Communication	3
COM 113	Digital Storytelling	3
COM 105	Media and Society	3
COM 108	Digital Video: Post Production	3
_____	Restricted Elective **	3

Third Semester		
_____	Social Science Elective	3
ENG 130	Writing for Media	3
COM 111	Digital Radio Production	3
COM 115	TV Studio Production	3
ART 225	Web Design 1	3
_____	Physical Education	.5

Fourth Semester		
_____	Social Science Elective	3
_____	Math or Liberal Arts Science	3
COM 223	Screenwriting	3
_____	Restricted Elective **	3
ART 230	Arts & Comm Practicum	2
PES 100	Concepts of Physical Wellness	1

Total Credits: 64

*** Restricted Electives:*
COM 221 - Cinematography
COM 227 - Visual Effects
COM 225 - Sound Design
MUS 111 - Audio Engineering for the Arts
ART 122 - Digital Photography 2
ART 226 - Web Design 2
COM 207 - Public Speaking
COM 103 - The Speaking Voice

Program Description

The purpose of the New Media Program is to prepare SUNY Orange students with the skills needed to pursue a career in the field of video, audio, and/or digital film production. Graduates of this program will be proficient in visual composition using different forms of digital media such as video, photography, web design and art. Graduates will also be proficient in audio production, specifically, digital radio production, sound design, and audio engineering. This course of study is designed for students seeking career opportunities in television production, film production, audio production, screenwriting, news broadcasting, and media development. Students may also transfer to a four-year institution upon graduation.

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency (HSE) diploma. If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

Degree Awarded: Associate in Applied Science

Program Learning Outcomes

Students will:

- Demonstrate knowledge of communication theories and history of mass media

- Utilize creative software that is standard in the media industry

- Demonstrate a working knowledge of the audio and video production process from pre-production and production to post-production

- Demonstrate a working knowledge of the individual functions of a production crew and exhibit proficiency in each role.

- Demonstrate the application of video/audio synchronization and composition

- Demonstrate fundamental understanding of media business practices

- Develop a personal writing process that culminates in the creation of a short film, scripted, taped, edited and produced by the student

- Create a portfolio containing work developed throughout the program

Career Opportunities

- television production
- film production
- audio production

Transfer Opportunities

While the A.A.S. degree leads to immediate employment, SUNY Orange students have successfully transferred. Please check with the intended transfer school for details.

Contact Information

Arts and Communication
Department Chair
(845) 341-4787
Admissions Office
(845) 341-4030

Nursing

Degree Awarded: Associate in Applied Science

Recommended Course Sequence for Full-Time Study

First Semester		Credits
ENG 101	Freshman English 1	3
BIO 111	Anatomy and Physiology 1	4
MLT 106	Microbiology for Health Prof.	3
NUR 101	Nursing 1: Fundamentals	7
Second Semester		
ENG 102	Freshman English 2	3
BIO 112	Anatomy & Physiology 2	4
NUR 102	Nursing 2: Fundamentals	10
Third Semester		
PSY 111	Introduction to Psychology	3
NUR 205	Pharmacology & The Human Body	3
NUR 201	Nursing 3: Caring for the Growing Family	7
_____	Elective	3
Fourth Semester		
_____	Liberal Art Elective	3
NUR 202	Nursing 4: Physical and Mental Illness	9
NUR 203	Nursing 5: Transition to Practice	1
	Total Credits:	63

Program Description

The Associate in Applied Science degree program in Nursing prepares students to become registered nurses. It provides for the development of those competencies expected of registered nurses in general nursing practice at the technical level. Emphasis is on direct client care within a career in nursing.

Through study in the humanities, biological and social sciences, and the experience of academic life, the student gains an understanding of the value of the individual and his/her contribution to society. This curriculum combines general education courses and nursing courses with laboratory and clinical experiences, during which students have the opportunity to care for clients in a variety of healthcare settings. Due to limited availability of clinical experience in some areas, students may be assigned to evening and/or weekend clinical experiences. Evening students may also be assigned to attend a day clinical during the semester. Students' personal schedules will have to be adjusted to allow for these required opportunities. Students gain clinical experience in long-term care, medical-surgical, maternal/child and mental health nursing. A variety of teaching methods is employed to integrate the classroom with the clinical experience.

Program Learning Outcomes

- The student will utilize the nursing process reflecting sound nursing judgment and critical thinking skills to resolve clinical and professional problems

- The student will demonstrate effective use of interpersonal skills and informatics to ensure effective communication with patient/families and the members of the health care team.

- The student will apply evidence-based standards of nursing practice to provide safe quality care to a diverse population across a multitude of settings.

- The student will demonstrate responsibility and accountability for self-growth with a commitment to the profession, exhibiting a spirit of inquiry and a passion for excellence.

Program Outcomes

- The NCLEX passing rate will exceed or be equal to the mean for New York State and the Nation.

- Program completion rate will be 70% within 3 years of admission into the nursing program.

- At least 90% of the graduates responding to the graduate survey will report satisfaction with the nursing program.

- At least 90% of the alumni responding to the alumni survey will value lifelong learning as evidenced by their stated intention to be enrolled in a BSN program.

- At least 90% of the alumni responding to the alumni survey will be employed in nursing within 9-12 months after graduation.

- At least 90% of the employers responding to the employer survey distributed within one year after graduation will indicate satisfaction with graduate performance.

Degree Awarded: Associate in Applied Science

Admission Criteria

Academic Requirements:

- High school diploma or high school equivalency (HSE) diploma
- Eligible to take Freshman English I (ENG 101)
- Eligible to take Intermediate Algebra (MAT 102), or have completed Elementary Algebra (MAT 101) or equivalent with a 2.0 or higher
- Eligible to take Anatomy and Physiology I (BIO 111) – may be met by successful completion of one of the following: Intro to Biology (BIO 110) with a 2.0 or higher; or High School AP Biology (score of 3, 4, or 5); or a passing grade on the Biology CLEP examination.
- Successful completion of High School Regents Chemistry, or its equivalent with a grade of 75 or higher; or High School AP Chemistry (score 3, 4 or 5); Elements of Chemistry & Physics (CHM 120); or college Chemistry course (with lab) with a grade of 2.0 or higher; or passing grade on the Chemistry 1 CLEP examination within 10 years of application deadline. *(Please note: SUNY Orange does not offer credit for the Chemistry CLEP, but it can be submitted as evidence of meeting this criteria).
- Students must attain a minimum cumulative GPA of 2.75

Department-Specific Requirements:

- Completion of a pre-admission orientation. During this orientation, student will receive information pertaining to health forms, program standards, CPR certification, and criminal record & drug screening policies. All students must submit to a criminal background check and urine drug screening. Orientation PPT is available online at www.sunyorange.edu/nursing/preadmission.shtml.
- Applicants for the Nursing program will be required to take the ATI Test of Essential Academic Skills (ATI TEAS). A score of BASIC is required for admission consideration. A score of PROFICIENT or higher is recommended. Visit www.sunyorange.edu/testing/services.shtml for test information, and scheduling.
- The Nursing Department will review transcripts of those students who have been enrolled in a health professions program at SUNY Orange or another college.

Note: Admission to this program is selective. In addition to an application to the College, students must apply for acceptance into this program through the Admissions office. Consideration for admission is based on the completion of all mandatory academic and departmental-specific eligibility requirements, highest combination of GPA, TEAS score and credits completed towards the degree, and seat availability.

All requirements must be completed and a program application form must be submitted to the Admissions Office before February 1 for the fall semester at the Middletown Campus and October 1st for the spring semester at the Newburgh campus.

In 2017, legislation was passed in NY State that requires RNs to obtain a BSN within 10 years of licensure in order to contine practicing. Therefore, students are strongly encouraged to begin planning to continue their education as soon as possible.

Career Opportunities

- hospitals
- long-term care settings
- community agencies
- health maintenance organizations
- government
- physicians' offices
- industry
- military
- education
- nursing specialties

Transfer Opportunities

Many of our graduates transfer to upper-level colleges and universities to pursue advanced degrees in the nursing profession. Successful transfer depends on the courses taken and the student's grade point average. SUNY Orange has special relationships with a number of colleges and universities.

- Adelphi University
- Chamberlain College
- Dominican College
- Excelsior College
- Mercy College
- Mount St. Mary College
- Pace University
- Russell Sage College
- SUNY Binghamton
- SUNY Delhi
- SUNY Empire State

Contact Information

Nursing Department
(845)-341-4107
Admissions Office
(845) 341-4030

Nursing

Degree Awarded: Associate in Applied Science

Recommended Course Sequence for Part-Time Study

First Semester	Credits
ENG 101 Freshman English 1	3
BIO 111 Anatomy and Physiology 1	4

Second Semester	
ENG 102 Freshman English 2	3
BIO 112 Anatomy & Physiology 2	4

Third Semester	
MLT 106 Microbiology for Health Prof.	3
PSY 111 Introduction to Psychology	3

Fourth Semester	
NUR 205 Pharmacology & The Human Body	3
_____ Elective #	3

Fifth Semester	
NUR 101 Nursing 1: Fundamentals	7
_____ LIberal Arts Elective*	3

Sixth Semester	
NUR 102 Nursing 2: Fundamentals	10

Seventh Semester	
NUR 201 Nursing 3: Caring for the Growing Family	7

Eighth Semester	
NUR 202 Nursing 4: Physical and Mental Illness	9
NUR 203 Nursing 5: Transition to Practice	1

Total Credits: 63

* *Refer to the list of Liberal Arts electives in this catalog.*

Guidelines for Advanced Placement for Licensed Practical Nurses

Transfer from a Practical Nursing Program through the SUNY Orange Articulation Agreement with OU BOCES and Ulster BOCES School of Practical Nursing.

Graduates of these program may transfer into NUR 102 – Nursing 2: Fundamentals based on the following criteria:

o Meet the college and nursing program admission criteria

o Attainment of an overall GPA of 85% in the LPN program

o Graduation within the previous five years

o Have a letter of recommendation from an OU BOCES or Ulster BOCES practical nursing program instructor

o Pass the NYS Licensed Practical Nurse Examination

o Successful completion of Nursing Bridge Course (N3029). Information regarding this course will be provided once your LPN/RN Health Profession Application is received. The course is taken after acceptance into the program and prior to beginning nursing classes.

Advance Standing into the Second Semester through the Excelsior College Examination

Licensed Practical Nurses who do not meet the transfer requirements from an articulation agreement, may apply for admission to NUR 102 – Nursing 2: Fundamentals. The application will be reviewed when the individual has met the college and nursing program admission criteria and the following has been achieved:

o Successful completion of an NLN accredited and/or state registered LPN program

o A minimum score of B on the Excelsior College Examination for Fundamentals of Nursing. (score may not be more than three years old). Information is available at www.excelsior.edu

o Successful completion of Nursing Bridge Course (N3029). This one-week course is taken after acceptance into the program, and prior to beginning Nursing classes during winter recess for spring entrants or during the summer for fall entrants. Information regarding the courses will be provided once you are accepted int the LPN-RN program. The course is taken after acceptance into the program and prior to beginning nursing classes.

Advance Standing into the Fourth Semester

Licensed Practical Nurses, who have successfully completed NUR 102 – Nursing 2: Fundamentals, may be considered for advanced standing into NUR 202 – Nursing 4: Physical and Mental Illness after completing the following requirements:

o Notification of the Nursing department chairperson of your intention to seek advanced standing to NUR 202

o PN transcript review demonstrates a minimum of 70 clinical hours in Maternal and Child Nursing

o A Minimum Score of B on the Excelsior College Examination in Maternal and Child Nursing (baccalaureate) (Official transcripts must be submitted to the Records and Registration Office)

o Completion of NUR 205: Pharmacology and the Human Body with a C or better

Credit for Nursing 101 will be granted after successful completion of Nursing 102 with a grade of C (2.0) or higher. Credit for Nursing 201 will be granted after successful completion of Nursing 202 and 203 with a grade of C (2.0) or higher. Minimum passing grade in all core nursing courses is 75. Nursing 2 and 4 are offered in the Spring semesters on the Middletown campus and in the fall on the Newburgh campus. The offering of these courses out of sequence is never guaranteed & at the discretion of the nursing department based on enrollment & clinical placement availability.

Students will be considered for acceptance into the Nursing Program based on the admission criteria in effect at the time of the request. Please be advised that certain general education requirements are co-requisites with nursing courses. A&P 2 must be taken with or prior to Nursing 2. Introduction to Psychology must be taken prior to Nursing 4.

LPN to RN program application forms are to be submitted by October 1st to be considered for acceptance into the program for the spring semester in Middletown, and May 1st for admission consideration for the fall semester on the Newburgh campus.

Progression Through The Program

A minimum grade of 75% (C) in each nursing course is required for progress in and graduation in nursing. A minimum grade of C is required in all laboratory science courses for progression in the nursing program. Nursing students must complete Freshman English 1 & 2 prior to enrollment in Nursing 3. Required nursing courses must be taken in the prescribed sequence. A student may repeat only one required nursing course one time. Once students are enrolled in the core nursing courses, they are to complete the program in three years. Students interested in admission to the evening nursing program are advised that this is a part-time program limited to 11.5 credits each semester. In order to meet this requirement; all non-clinical courses should be completed prior to starting this part-time program. The day program is two academic years in length if pursued on a full time basis. Because of the intense nature of the Nursing Program, the student may find that part-time study is more appropriate.

Nursing Readmission

Students who withdraw from, fail or receive a grade below "C" in any one of the required nursing courses may apply for readmission to the Nursing program. A student is only allowed to do this one time. Additionally the program is to be completed within three years from the start of the first nursing course. A student seeking readmission must meet the program requirements in effect at the date of re-entry. Readmission is neither guaranteed nor is it an automatic process. Students requesting to be considered for readmission to Nursing 101 are to do so through the admissions office of the college. Students requesting to be considered for readmission to Nursing 102, 201, 202 or 203 must inform the nursing department chairperson in writing. Written requests must be submitted by May 20th for the Fall semester and December 20th for the Spring semester. Prior to readmission, students are required to successfully complete a special bridge course. To be considered for re-admission a student must have a minimum cumulative GPA of 2.75.

Licensure

Graduates of the nursing program are eligible to apply for the National Council Licensing Examination for Registered Nurses (NCLEX). Completion of the Nursing program does not assure admittance to attempt the RN licensure exam. When submitting an application for licensure and first registration, the applicant is required to report any history of a felony or misdemeanor. The state boards of nursing will review all applicant information submitted and determine if the applicant is eligible for licensure.

Career Opportunities

- hospitals
- long-term care settings
- community agencies
- health maintenance organizations
- government
- physicians' offices
- industry
- military
- education
- nursing specialties

Transfer Opportunities

Many of our graduates transfer to upper-level colleges and universities to pursue advanced degrees in the nursing profession. Successful transfer depends on the courses taken and the student's grade point average. SUNY Orange has special relationships with a number of colleges and universities.

- Adelphi University
- Chamberlain College
- Dominican College
- Excelsior College
- Mercy College
- Mount St. Mary College
- Pace University
- Russell Sage College
- SUNY Binghamton
- SUNY Delhi
- SUNY Empire State

Contact Information

Nursing Department
(845)-341-4107
Admissions Office
(845) 341-4030

Occupational Therapy Assistant

Degree Awarded: Associate in Applied Science

Accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), 4720 Montgomery Lane, Suite 200, Bethesda, MD 20814-3449, 301/652-AOTA; www.acoteonline.org

Recommended Course Sequence

First Semester		Credits
ENG 101	Freshman English 1	3
ENG 160	Technical Writing Module	1.5
PSY 111	Introduction to Psychology	3
BIO 111	Anatomy & Physiology 1	4
OTA 101	Fund. of Occupational Therapy 1	3
OTA 103	Occupational Performance 1	1
OTA 107	Principles of OT in Geriatrics & Gerontology	2

Second Semester		
ENG 102	Freshman English 2	3
PSY 220	Developmental Psychology	3
BIO 112	Anatomy & Physiology 2	4
OTA 102	Fund. of Occupational Therapy 2	3
OTA 104	Occupational Performance 2	1
OTA 106	Medical Conditions	3

Third Semester		
PSY 230	Abnormal Psychology	3
OTA 110	Intro to Assistive Technology	3
OTA 201	Principles of OT in Pediatrics & Developmental Disabilities	3
OTA 203	Clinical Reasoning Skills	1
OTA 205	Principles of Occupational Therapy in Mental Health	3
OTA 207	Principles of Occupational Therapy in Physical Disabilities	3
OTA 209	Documentation in Occupational Therapy	1.5
PED 155	CPR	1

Fourth Semester		
OTA 217	Clinical Practice 1	7.5
OTA 218	Clinical Practice 2	7.5

Total Credits: 68

Program Description

The Associate in Applied Science degree program in Occupational Therapy Assistant prepares graduates to obtain New York State licensure and to take the National Certification Board for Occupational Therapy exam* to become Certified Occupational Therapy Assistants (COTA). Certified Occupational Therapy Assistants work under the supervision of, and in collaboration with, Registered Occupational Therapists (OTR). Occupational therapy practitioners provide service to children, adults and seniors whose abilities to engage in their occupations (tasks) of living are impaired by physical injury or illness, developmental delays, the aging process or psychological and social disability.

The COTA's responsibilities include providing purposeful and meaningful activity to restore lost or impaired physical, cognitive and psychological skills; development and use of assistive technology; adapting home, play and work environments and activities to ensure successful and safe performance. The COTA may design adapted toys and games for a child with physical limitations; provide handwriting adaptations for students within a school setting to enhance their learning process; evaluate and design home adaptations to enhance independence in self-care activities such as feeding, bathing, shaving, cooking and dressing; encourage the elderly client to participate in leisure activities and to maintain personal independence.

The primary focus of the curriculum is on the development of critical thinking and clinical problem-solving skills, and on essential elements in designing and applying therapeutic interventions for the clients served by COTAs. The program includes classroom instruction, laboratory and community-based fieldwork rotations. Occupational therapy assistant courses are offered once each year. Courses must be taken in the sequence in which they are offered. A minimum grade of C is required in all occupational therapy assistant courses. The course of study may be pursued on a part-time basis. All program requirements must be completed within six consecutive semesters from the time of enrollment in the first OTA course. Individualized part-time schedules can be developed between the student and the OTA faculty advisor.

* **Note**: Graduates of the OTA program are required to apply for NBCOT® certification. Candidates applying for the Certification Examination must notify the NBCOT's Qualifications Review Committee (QRC) if they have ever been charged with or convicted of a felony. A felony conviction may prevent the candidate from taking the examination. Please consult the department chair if this may be an issue in successfully pursuing a career in occupational therapy.

Occupational Therapy Assistant

Degree Awarded: Associate in Applied Science

Admission Criteria

Academic Requirements:

- High school diploma or HSE

- Eligible to take Freshman English I (ENG 101)

- Eligible to take Elementary Algebra (MAT 101) or have successfully completed Fundamentals of Algebra (MAT 020)

- Completed High School AP Biology (score of 3, 4, or 5) or a passing grade in the Biology CLEP examination; or Introduction to Biology or Anatomy & Physiology 1 with a grade of 2.0 or better (within 5 years of program entry)

- Students must attain a minimum cumulative GPA of 2.4

Department-Specific Requirements:

- A minimum of 15 hours of observation at 3 different occupational therapy service sites is required for application to the Occupational Therapy Assistant Program. The observations must occur in at least three different occupational therapy service settings (five hours in each of the major treatment areas: pediatrics (birth-21 years of age), inpatient or outpatient rehabilitation settings, skilled nursing facilities).

  The required Pre-Admission Observation Form must be completed to document observations. (Pre-admission observation forms are available online at: www.sunyorange.edu/admissions/healthforms.shtml).

- Interview with Dept. Chair and selected OTA faculty, a group problem-solving activity and related essay.

- Attendance at a pre-admission orientation (includes interview, problem solving activity and discussion). At this orientation, students will receive and sign off on information pertaining to health forms, drug testing, and criminal record policies. Dates for pre-admission orientation are posted on Admissions and OTA Dept. websites.

  Note: Admission to this program is selective. In addition to an application to the College, students must apply for acceptance into this program through the Admissions office. Consideration for admission is based on the completion of all mandatory academic and departmental-specific requirements, highest combination of CQPA and credits completed towards the degree, and seat availability. All requirements must be completed and an eligibility form must be submitted to the Admissions Office before February 1 in order for a student to be considered for acceptance into this program for the Fall semester.

Program Learning Outcomes

Students will:

- learn problem-solving and clinical reasoning.

- build on knowledge, practice skills, theory and critical thinking applications.

- apply these multiple skills and insights to adapt to and cope in this novel and diverse world.

- think and act with flexibility, to think "outside the box."

- welcome change and growth in themselves, their clients and the organizations they serve.

Career Opportunities

- hospitals, inpatient and outpatient mental health facilities
- rehabilitation centers and skilled nursing facilities
- schools, developmental disabilities service sites
- home and community health agencies
- accessibility and home modification specialists
- assistive technology specialists
- health and wellness centers
- advancement to OTR

Transfer Opportunities

While the A.A.S. is a degree leading to immediate job placement upon graduation and successful completion of the National Certification exam, SUNY Orange has special relationships with weekend college programs for transfer to a B.S./M.S. degree at:

- Dominican College

- Mercy College

Contact Information

Occupational Therapy Assistant Department Chair
341-4323
Admissions Office
(845) 341-4030

Office Technologies

Degree Awarded: Associate in Applied Science

Accredited by the Accreditation Council for Business Schools and Programs (ACBSP)
7007 College Boulevard, Suite 420, Overland Park, KS, 66211

Recommended Course Sequence

Legal Office Assistant Emphasis

First Semester		Credits
ENG 101	Freshman English 1	3
OFT 108	Intermed. Computer Keyboarding*	3
_____	Math/Liberal Arts Science	3
BUS 103	Introduction to Business	3
ACC 101	Accounting Principles 1	4

Second Semester		
ENG 102	Freshman English 2	3
_____	Social Science Elective	3
POL 102	U.S. Government - State & Local	3
OFT 201	Records/Information Management	3
OFT 110	Legal Documents & Terminology *or*	
OFT 109	Advanced Computer Keyboarding**	3

Third Semester		
BUS 201	Business Law 1	3
OFT 209	Microsoft Word & PowerPoint	3
BUS 203	Business Communications	3
MGT 205	Human Resource Management	3
OFT 207	Transcription Skills**	3

Fourth Semester		
_____	Liberal Arts Elective	2-3
OFT 214	Excel and Access**	3
_____	Math or Liberal Arts Science	3
BUS 202	Business Law 2	3
OFT 220	Office Internship***	3

Total Credits: 60-62

*   *Students without sufficient keyboarding ability will be required to take OFT 107 Elementary Keyboarding. Students with sufficient keyboarding ability to pass the waiver for OFT 108 fulfill this requirement with a business elective.*
** *Special legal/medical projects are provided in OFT 109, OFT 207 and OFT 214 for students in these programs.*
*** *Students need approval of the Chair to register for this course, and at least a 2.0 CGPA*

Office Management Emphasis

First Semester		Credits
ENG 101	Freshman English 1	3
OFT 108	Intermed. Computer Keyboarding*	3
_____	Math/Liberal Arts Science	3
BUS 103	Introduction to Business	3
ACC 101	Accounting Principles 1	4

Second Semester		
ENG 102	Freshman English 2	3
_____	Social Science Elective	3
BUS 101	Business Math	3
OFT 201	Records/Information Management	3
_____	Math/Liberal Arts Science	3

Third Semester		
BUS 201	Business Law 1	3
OFT 209	Microsoft Word & PowerPoint	3
BUS 203	Business Communications	3
MGT 205	Human Resource Management	3
ACC 102	Accounting Principles 2	4

Fourth Semester		
_____	Liberal Arts Elective	2-3
OFT 214	Excel and Access**	3
_____	Social Science Elective	3
MGT 201	Principles of Management	3
OFT 220	Office Internship***	3

Total Credits: 61-62

*   *Students without sufficient keyboarding ability will be required to take OFT 107 Elementary Keyboarding. Students with sufficient keyboarding ability to pass the waiver for OFT 108 fulfill this requirement with a business elective.*
** *Special legal/medical projects are provided in OFT 109, OFT 207 and OFT 214 for students in these programs.*
*** *Students need approval of the Chair to register for this course, and at least a 2.0 CGPA*

This degree has been approved by ACBSP and SUNY NYS Education Department for online distance learning delivery. This does not mean that SUNY Orange offers every course in the program online; however, many are offered in this format. Please check the current credit course schedule for online DL virtual course listings offered each semester.

Office Technologies

Secretarial/Word Processing Emphasis

First Semester		Credits
ENG 101	Freshman English 1	3
OFT 108	Intermed. Computer Keyboarding*	3
_____	Math/Liberal Arts Science	3
BUS 103	Introduction to Business	3
ACC 101	Accounting Principles 1	4

Second Semester		
ENG 102	Freshman English 2	3
_____	Social Science Elective	3
BUS 101	Business Math	3
OFT 201	Records/Information Management	3
OFT 109	Advanced Computer Keyboarding**	3

Third Semester		
_____	Math/Liberal Arts Elective	3
OFT 209	Microsoft Word & PowerPoint	3
BUS 203	Business Communications	3
MGT 205	Human Resource Management	3
OFT 207	Transcription Skills**	3

Fourth Semester		
_____	Liberal Arts Elective	2-3
OFT 214	Excel and Access**	3
_____	Social Science Elective	3
_____	Business Elective#	3
OFT 220	Office Internship***	3

Total Credits: 60-61

* *Students without sufficient keyboarding ability will be required to take OFT 107 Elementary Keyboarding. Students with sufficient keyboarding ability to pass the waiver for OFT 108 fulfill this requirement with a business elective.*

** *Special legal/medical projects are provided in OFT 109, OFT 207 and OFT 214 for students in these programs.*

*** *Students need approval of the Chair to register for this course, and at least a 2.0 CGPA*

\# *Business Electives courses begin with ACC, BUS, MKT, MGT, OFT*

Career Opportunities

- service
- education
- travel
- entertainment
- manufacturing
- legal and medical
- insurance
- industrial
- media/advertising

Transfer Opportunities

While the A.A.S. is a degree leading to immediate job placement upon graduation, SUNY Orange has a special relationship for transfer to a B.S. degree in Applied Management with Franklin University.

Other transfer opportunities exist with:

- Franklin University (to another related degree)
- Mount St. Mary College
- Ramapo College
- SUNY Empire State College

Contact Information

Business Department Chair
(845) 341-4411
Admissions Office
(845) 341-4030

Office Technologies

Degree Awarded: Associate in Applied Science

Program Description

The Associate in Applied Science degree program in Office Technologies prepares graduates to begin their careers as office assistants. Three special emphasis areas are provided: legal office assistant, office manager, and secretary/information processor. Specialized courses combine with the common core courses to prepare graduates to enter the office support staff.

The office assistant provides office support to employers in a wide variety of settings. This support includes document production, computer software capability, records management, telephone interaction, customer service, keyboarding and data entry.

Students learn to use modern office equipment and, through internships, are exposed to realistic office situations. The internship experience includes 90 hours of office work with a cooperating employer along with weekly meetings with the College instructor. Topics for these meetings include: minute-taking instruction, telephone techniques, human relations issues, problem solving, the resume and interview, and the creation of a professional portfolio.

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

Students without sufficient keyboarding ability will be required to take Elementary Computer Keyboarding. Students with sufficient keyboarding ability to pass the waiver for Intermediate Computer Keyboarding fulfill this requirement with a business elective.

Program Learning Outcomes

Students will:

- demonstrate the ability to keyboard in correct form business correspondence, which includes letters, interoffice memos, forms, reports, tables, legal documents and financial statements.
- demonstrate the ability to keyboard straight copy for five minutes with a maximum of three errors.
- effectively communicate both orally and in written documents.
- understand the concepts of current information and word processing functions through the successful completion of learning exercises, application problems and exams at a microcomputer workstation.
- learn critical thinking skills through an analytical business report project.

This page intentionally left blank

Performing Arts: Music

Degree Awarded: Associate in Applied Science

Recommended Course Sequence

Music Emphasis

First Semester		Credits
ENG 101	Freshman English 1	3
MAT ___	Math (MAT 101 or higher)	3
MUS 123	Basic Musicianship 1	5
MUS ___	Piano*	2
MUS 141	Group Voice 1	2
MUS 1__	Ensemble**	1
MUS 1__	Private Instruction***	1

Second Semester		
ENG 102	Freshman English 2	3
PHY 108	Acoustics	3
MUS 124	Basic Musicianship 2	5
MUS___	Piano*	2
MUS 142	Group Voice 2	2
MUS 1__	Ensemble**	1
MUS 1__	Private Instruction***	1

Third Semester		
_____	Social Science Elective	3
MUS 223	Advanced Musicianship 1	4
MUS___	Piano*	2
MUS 10_	Music History****	3
MUS 109	Music Business	3
MUS 1__	Ensemble**	1
MUS 1__	Private Instruction***	1

Fourth Semester		
_____	Social Science Elective	3
MUS 224	Advanced Musicianship 2	4
MUS___	Piano*	2
MUS 10_	Music History****	3
MUS 1__	Ensemble**	1
MUS 1__	Private Instruction***	1

Total Credits: 65

* MUS 131, 132, 231, 232, 233, 234.
** MUS 151, 153, 155, 157, 159, 161
*** MUS 170-177
**** MUS 103, 104, 105, 107

Music Business Emphasis

First Semester		Credits
ENG 101	Freshman English 1	3
MAT ___	Math (MAT 101 or higher)	3
MUS 123	Basic Musicianship 1	5
MUS ___	Piano*	2
MUS 141	Group Voice 1	2
MUS 1__	Ensemble**	1
MUS 1__	Private Instruction***	1

Second Semester		
ENG 102	Freshman English 2	3
PHY 108	Acoustics	3
MUS 124	Basic Musicianship 2	5
MUS___	Piano*	2
MUS 1__	Ensemble**	1
MUS 1__	Private Instruction***	1

Third Semester		
_____	Social Science Elective	3
MUS 223	Advanced Musicianship 1	4
MUS 142	Group Voice 2	2
MUS___	Piano*	2
MUS 10_	Music History****	3
MUS 109	Music Business	3
MUS 1__	Ensemble**	1
MUS 1__	Private Instruction***	1

Fourth Semester		
_____	Social Science Elective	3
MUS 224	Advanced Musicianship 2	4
MUS___	Piano*	2
MUS 10_	Music History****	3
MUS 1__	Ensemble**	1
MUS 1__	Private Instruction***	1

Total Credits: 63

* MUS 131, 132, 231, 232, 233, 234.
** MUS 151, 153, 155, 157, 159, 161
*** MUS 170-177
**** MUS103, 104, 105, 107

Degree Awarded: Associate in Applied Science

Jazz/Commercial Emphasis

First Semester		Credits
ENG 101	Freshman English 1	3
MAT ___	Math (MAT 101 or higher)	3
_____	Social Science Elective	3
MUS 123	Basic Musicianship 1	5
MUS ___	Piano*	2
MUS 161	Jazz Ensemble	1
MUS 1__	Private Instruction***	1

Second Semester		
ENG 102	Freshman English 2	3
PHY 108	Acoustics	3
MUS 124	Basic Musicianship 2	5
MUS ___	Piano*	2
MUS 161	Jazz Ensemble	1
MUS 1__	Private Instruction***	1

Third Semester		
MUS 223	Advanced Musicianship 1	4
MUS ___	Piano*	2
MUS 10_	Music History****	3
MUS 109	Music Business	3
MUS 161	Jazz Ensemble	1
MUS 163	Jazz Improvisation 1	2
MUS 1__	Private Instruction***	1

Fourth Semester		
_____	Social Science Elective	3
MUS 224	Advanced Musicianship 2	4
MUS ___	Piano*	2
MUS 10_	Music History****	3
MUS 161	Jazz Ensemble	1
MUS 164	Jazz Improvisation 2	2
MUS 226	Elements of Arranging	3
MUS 1__	Private Instruction***	1

Total Credits: 68

*   *MUS 131, 132, 231, 232, 233, 234.*
**   *MUS 151, 153, 155, 157, 159, 161*
***   *MUS 170-177*
**** *MUS103, 104, 105, 107*

Career Opportunities

- performing/recording artist
- record production
- music composition
- music education
- media careers
- music retail/wholesale
- music publishing
- music law
- music management/ promotion
- publicity
- facility/concert management
- music therapy
- journalism
- music library science
- instrument construction/ repair

Note: Some careers require training beyond the two-year degree.

Transfer Opportunities

Although the A.A.S. is designed primarily as a professional degree, many graduates do transfer to baccalaureate programs at other colleges. The program prepares students for successful results on theory placement assessments and auditions leading to acceptance into such programs. SUNY Orange enjoys an articulation agreement with SUNY Purchase guaranteeing acceptance and transfer of all SUNY Orange credits assuming basic entrance criteria are met.

Contact Information

Arts and Communication
Department Chair
(845) 341-4787
Admissions Office
(845) 341-4030

Performing Arts: Music

Degree Awarded: Associate in Applied Science

Program Description

The Associate in Applied Science degree program in Performing Arts: Music prepares graduates for employment in a field connected with music or possible transfer to a bachelor's degree music program. Students select one of three emphasis areas: Music Performance, Jazz and Commercial Music or Music Business. For those seeking transfer, an articulation with SUNY Purchase has been established giving students the opportunity for seamless transition to a four-year program.

The program includes core courses in music history, theory and related musicianship skills, piano, instrumental or vocal performance, acoustics, and music business. Performing ensembles enable students to learn in active, collaborative settings and offer ongoing service and enrichment to the College and community through a variety of musical performances. Courses in arranging and improvisation are required for students choosing the Jazz and Commercial option. Students selecting the Music Performance or Jazz and Commercial options must complete four credits of private music instruction with a department-approved teacher and are responsible for the private instructor's fee. Courses not required to complete the degree but also available include Songwriting, Jazz Keyboard Harmony, Jazz/Commercial Guitar, Jazz/Commercial Drumming, and Audio Engineering and Design for the Arts. Detailed course descriptions appear in the course description section of this catalog. Please note that not all courses are offered in the evening.

An ongoing visiting artist series enables students to learn directly from some of the best contemporary performing artists in workshops featuring musicians such as Cindy Blackman, Randy Brecker, Bob Mintzer and Kenny Barron. Many of the courses required in the program fulfill New York State general education requirements and thus are easily transferable within the SUNY system.

Admission Criteria

Admission to this program requires that students be high school graduates or have a high school equivalency (HSE) diploma. If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

Note: Although this is an open admissions program, music placement assessment is required for registration into certain courses. Consult with Arts and Communication Department music faculty.

Program Learning Outcomes

Students will:
- demonstrate proficiency in music theory, notation, harmony and part-writing.
- apply their knowledge of music theory, notation and harmony at the keyboard.
- demonstrate proficiency in sight reading on their instrument and sight singing.
- notate musical materials from dictation.
- demonstrate proficiency on the piano through the performance of standard repertory.
- perform in an instrumental or vocal ensemble.
- demonstrate knowledge of music history, musical styles, genres and composers.
- demonstrate fundamental understanding of music business.
- demonstrate fundamental understanding of acoustics.

This page intentionally left blank

Physical Therapist Assistant

Degree Awarded: Associate in Applied Science

The Physical Therapist Assistant Program at SUNY Orange is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 North Fairfax Street, Alexandria, Virginia 22314; telephone: 703-706-3245; email: accreditation@apta.org; website: www.capteonline.org.

Recommended Course Sequence

First Semester		Credits
ENG 101	Freshman English 1	3
BIO 111	Anatomy & Physiology 1	4
PTA 101	PTA 1	4
PTA 103	Introduction to Physical Therapy	2
PTA 105	Medical Conditions for the PTA	3

Second Semester		
ENG 102	Freshman English 2	3
BIO 112	Anatomy & Physiology 2	4
PTA 102	PTA 2	4
PTA 104	Kinesiology	4
PED 224	Introduction to Exercise Principles	2

Third Semester		
PSY 111	Introduction to Psychology	3
PED 202	Basic Exercise Physiology	3
PTA 201	PTA 3	4
PTA 205	Clinical Education 1	3
PTA 207	Tests and Measurement Skills for the PTA	4

Fourth Semester		
PSY 220	Developmental Psychology	3
PTA 202	PTA 4	4
PTA 206	Clinical Education 2	3
PTA 208	Contemp. Practice for the PTA	3

Summer Clinical		
PTA 220	Clinical Education 3	3

Total: 66

Licensure

Graduates of the Physical Therapist Assistant program are eligible to apply for certification in the state where they plan to practice. This process includes providing a history of possible existing criminal convictions and/or professional misconduct. Criteria for determination of good moral character varies from state to state, therefore, completion of the program does not guarantee acceptance by that state's regulatory entity to become certified or licensed.

Program Description

The Associate in Applied Science degree program in Physical Therapist Assistant (PTA) is designed to provide students with both the academic knowledge and clinical skills to become certified/licensed PTAs. The field of Physical Therapy is demanding. Graduates are required to meet all program requirements which are guided by the Commission on Accreditation in Physical Therapy Education. Many states, including New York, also require that students pass the national licensing examination as part of the certification/licensure process.

The PTA works with, and under the direction and supervision of the physical therapist who plans the patient care program; the PTA then helps to carry out this program. Duties of the PTA include monitoring of vital signs, lifting of patients and equipment, training of patients in therapeutic exercises and activities of daily living, wound care, use of whirlpool and electrical stimulation during treatment procedures, application of heat and cold modalities, patient and family education, wheelchair activities, use of walkers and crutches, assisting the physical therapist in performing patient assessments and complex treatment procedures. The PTA also monitors the patient's responses to treatment, documents relevant aspects of patient care and maintains ongoing communication with the patient, family, supervising physical therapist and other health care professionals.

The primary focus of the curriculum is to develop a strong clinician who possesses critical thinking and problem-solving skills. To accomplish this, the program provides the clinical training as well as a broad general education background. Courses include both core classes and non-core classes (general education courses). The core Physical Therapist Assistant courses are offered once each year beginning in the fall semester.

All program requirements must be completed within six consecutive semesters from the time of enrollment in the first PTA course. These courses must be taken in the sequence in which they are offered. The curriculum includes classroom instruction, laboratory time and clinical experiences. However, general education courses may be taken on a part-time basis during the day or evening, and may be completed over a longer period of time than the four semesters. But they must be completed no later than the semester in which they fall into sequence with the core courses.

A minimum grade of C is required in all PTA courses and a minimum grade of C is required in each of the following courses: Anatomy and Physiology 1, Anatomy and Physiology 2, and Basic Exercise Physiology.

Physical Therapist Assistant

Degree Awarded: Associate in Applied Science

Admission Criteria

Academic Requirements:

- High school diploma or high school equivalency (HSE) diploma
- Eligible to take Freshman English I (ENG 101)
- Eligible to take Intermediate Algebra (MAT 102) or equivalent with a 2.0 or higher or have completed Elementary Algebra (MAT 101)
- Completed High School AP Biology (score of 3, 4, or 5) or a passing grade in the Biology CLEP examination; or Introduction to Biology or Anatomy & Physiology 1 with a grade of 2.0 or better (within 5 years of program entry)
- Minimum cumulative GPA of 2.0

Department-Specific Requirements:

- Submit Physical Therapy practitioner observation form with essay (48 hour min. with documentation).
- View the Pre-Admission Orientation Power Point located on the program website and complete the survey. Once completed, you must print the completed survey and submit it to the Admissions Department.
- Most qualified candidates will be invited to attend a program interview.
- If invited, schedule and attend an interview with the Department Chair.

Note: Admission to this program is selective. In addition to an application to the College, students must apply for acceptance into this program through the Admissions office. Consideration for admission is based on the completion of all mandatory academic and departmental-specific requirements, highest combination of program credits completed and cumulative GPA towards the degree, Orange County residency and seat availability. All requirements must be completed and an eligibility form must be submitted to the Admissions Office before February 1 in order for a student to be considered for acceptance into this program for the Fall semester. If seats remain available after February 1, students will be assessed as they apply.

Program Learning Outcomes

Students will:

- possess entry-level skills as determined by the Commission on Accreditation in Physical Therapy Education.
- be able to work under the direction and supervision of a licensed physical therapist in an ethical, legal, safe, and effective manner becoming an integral member of the healthcare team.
- demonstrate appropriate critical thinking and problem-solving skills in their role as a Physical Therapist Assistant.
- demonstrate an understanding of the New York State Education Law as it relates to the provision of Physical Therapy services.
- successfully complete the National Physical Therapy Exam for PTAs.
- develop the skills necessary to pursue lifelong learning needed for personal and professional growth.
- be aware of their responsibility to promote the profession through membership in the APTA, attending local and national meetings and conferences, and participation in community events.

Career Opportunities

- hospitals, nursing homes
- private offices
- rehabilitation centers
- schools
- fitness centers
- home care settings

Transfer Opportunities

The A.A.S. degree is primarily intended to prepare students for immediate employment: however, transfer opportunities exist in some areas.

If a student plans to pursue a Physical Therapy doctorate program, he or she should see the department chair or a faculty advisor as soon as possible.

Contact Information

Physical Therapist Assistant
Department Chair
(845) 341-4290
Admissions Office
(845) 341-4030

Public Health

Degree Awarded: Associate in Science

Recommended Course Sequence

First Semester		Credits
ENG 101	Freshman English 1	3
SOC 101	Intro to Sociology	3
MAT ___	Math (MAT 102 or higher)	3
BIO 101	General Biology 1	4
PBH 101	Intro to Public Health	3
PES 100	Concepts of Physical Wellness	1

Second Semester		Credits
ENG 102	Freshman English 2	3
PSY 111	Introduction to Psychology	3
MAT 120	Intro to Statistics	3
BIO 102	General Biology 2	4
PBH 102	Promoting Healthy People & Communities	3

Third Semester		Credits
COM 101	Foundations of Communications	3
BIO 125	Nutrition	3
PHL 220	Ethics	3
PBH 203	Concepts of Epidemiology	3
PBH 204	Global Health	3
PES ___	Physical Education Elective	1

Fourth Semester		Credits
_____	Liberal Arts Science Elective	3
_____	SUNYHistory Elective (GE 4, 5, 6)	3
_____	SUNY Arts (GE 8) *or* Foreign Language Elective (GE 9)	3
_____	Social Science Elective	3
PBH 205	U.S. Health Care System	3

Total: 64

Program Description

The Associate in Science degree program in Public Health is designed specifically for students to transfer to the appropriate upper-level college or university of their choice, where they can complete a B.S degree in Public Health or their chosen field of study. As such, the program provides core courses in Public Health and general education requirements that would be included in the first two years of study at four-year institutions. This degree program provides students with foundational knowledge in public health that can also be used in a wide range of professions and many other health-related fields. Public Health professionals work within a variety of settings including state and local health departments, hospitals, workplace wellness programs, government agencies, educational institutions, research organizations, and international development agencies.

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (HSEs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

Degree Awarded: Associate in Science

Program Learning Outcomes

Students will:

- Define public health and related roles and responsibilities of government, non- government agencies, and private organizations.
- Describe risk factors and modes of transmission for infectious and chronic diseases and how these diseases affect both personal and population health.
- List the leading causes of mortality, morbidity, and health disparities among local regional, and global populations.
- Discuss the role of gender, race, ethnicity, and other evolving demographics in affecting population health.
- Discuss major local, national, and global health challenges.
- Describe how the methods of epidemiology and surveillance are used to safeguard the population's health.
- Communicate health information to a wide range of audiences through an array of media.
- Conduct a literature search on a health issue using a variety of academic and public resources.
- Recognize the impact of policies, laws, and legislation on both individual and population health.
- Analyze ethical concerns and conflicts of interest that arise in the field of public health.

Offered through the Hudson Valley Educational Consortium

www.sunyorange.edu/hvec/

Career Opportunities

- Biostatistics
- Health Informatics
- Environmental Health
- Global Health
- Management Policy Advisor
- Industrial Hygienist
- Bioterrorism Researcher

Transfer Opportunities

SUNY Orange has special relationships with upper-level colleges and universities for transfer.

These transfer institutions include:

- SUNY Albany – Public Health
- SUNY Old Westbury – Health & Society

Contact Information

Movement Science
Department Chair
(845) 341-4245
Admission Office
(845) 341-4030

Radiologic Technology

Degree Awarded: Associate in Applied Science

Accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT) 20 N. Wacker Drive, Suite 2850, Chicago, IL 60606-3182; Phone (312) 704-5300; Website: www.jrcert.org

Recommended Course Sequence

First Semester		Credits
BIO 111	Anatomy & Physiology 1	4
EET 110	Computer Applications and Graphics	3
RAD 101	Principles of Radiographic Exposure 1	4
RAD 103	Introduction to Radiography	1
RAD 105	Radiographic Positioning 1	4
RAD 107	Methods of Patient Care 1	2

Second Semester		
BIO 112	Anatomy & Physiology 2	4
ENG 101	Freshman English 1	3
RAD 102	Principles of Radiographic Exposure 2	4
RAD 104	Radiation Protection	1
RAD 106	Radiographic Positioning 2	4
RAD 108	Methods of Patient Care 2	1
RAD 111	Clinical Practicum 1	1

First Summer Clinical		
RAD 112	Clinical Practicum 2	2

Third Semester		
ENG 102	Freshman English 2	3
PSY 111	Introduction to Psychology	3
RAD 209	Radiographic Physics	4
RAD 213	Clinical Practicum 3	1.5
RAD 217	Radiographic Positioning 3	2
RAD 221	Radiographic Pathology	3

Fourth Semester		
SOC 101	Introduction to Sociology	3
RAD 210	Quality Assurance	1
RAD 214	Clinical Practicum 4	1.5
RAD 216	Advanced Imaging Modalities	3
RAD 218	Radiation Biology	2
RAD 219	Medical Terminology	1

Second Summer Clinical		
RAD 215	Clinical Practicum 5	2

Total Credits: 68

Program Description

The Associate in Applied Science degree program in Radiologic Technology prepares students to apply to take the Registry examination in Radiography offered by the American Registry of Radiologic Technologists to become a radiographer. An essential member of the healthcare team, the radiographer positions body parts accurately and manipulates radiographic equipment to produce a quality diagnostic image with the least amount of radiation necessary.

The Radiologic Technology program is dedicated to providing each student with the educational activities necessary to develop the required critical thinking and technical and interpersonal skills of the radiographer. The highly skilled radiographer is educated in properly caring for the patient's needs during the radiographic examination, manipulates radiographic and computerized equipment, as well as adheres to protocols in bedside and operating room areas, selects technical factors and diagnostic parameters, instructs and assists the patient in order to obtain the necessary positioning, demonstrates appropriate application of radiation safety principles of "time, distance and shielding," in order to protect the patient, self and others, exhibits care and accuracy in the administration, preparation and disposal of drugs and contrast agents.

Note: The Radiologic Technology program, as well as the field of radiologic technology, is a rigorous one. Program standards are not altered for disabled students. The College will make every effort to provide reasonable accommodations to students with disabling conditions.

Admission Criteria

Academic Requirements:

• High school diploma or HSE

• Eligible to take Freshman English I (ENG 101)

• Eligible to take College Algebra (MAT 121), or have completed Intermediate Algebra (MAT 102) or equivalent with a 2.0 or higher

• Completed High School AP Biology (score of 3, 4, or 5) or a passing grade in the Biology CLEP examination; or introduction to Biology or Anatomy & Physiology 1 with a grade of 2.0 or better (within 5 years of program entry)

• Minimum cumulative GPA of 2.5

Optional Group Interview: All applicants found eligible during the admissions process will have hte opportunity to interview in order to earn an additional 15 points maximum towards a seat in the program. Eligible students will be contacted in early March. Should an eligible student choose not to participate, the student forfeits the opportunity to earn additional points in hte review process. Points earned stand for 3 years after which students can interview again. For more information, please see the department home page www.sunyorange.edu/di/index.shtm

Radiologic Technology

Department-Specific Requirements:

• Attendance at a pre-admission orientation. At this orientation, students will receive and sign off on information pertaining to the Radiologic Technology program including technical standards, health forms, and criminal record policies.

Note: Admission to this program is selective. In addition to an application to the College, students must apply for acceptance into this program through the Admissions office. Consideration for admission is based on the completion of all mandatory academic and departmental-specific requirements, highest combination of CQPA and credits completed towards the degree, and seat availability. All requirements must be completed and an eligibility form must be submitted to the Admissions Office before February 1 in order for a student to be considered for acceptance into this program for the Fall semester.

At the time prospective students submit their applications to the American Registry of Radiologic Technologists and the New York State Department of Health, they must make a statement about their conviction record, if any. If they would have to answer "yes" to a question about a felony conviction, they should contact the NYS Department of Health (518) 402-7580 AND The American Registry of Radiologic Technologist (651) 687-0048. Both of these agencies MUST be contacted to determine if students will be eligible to sit for the certification exam and/or to be licensed.

Program Goals

1. Students will demonstrate critical thinking skills

2. Students will demonstrate clinical competence in relation to their knowledge and technical skills

3. Students will exhibit professional behavior

4. Students will demonstrate effective written and oral communication skills

Student Learning Outcomes

• Students will perform routine radiography exams

• Students will perform non-routine radiology procedures

• Students will evaluate radiographs for diagnostic quality

• Students will demonstrate knowledge through Clinical Test Exams

• Students will practice patient safety and radiation protection

• Students will demonstrate professional behavior

• Students will demonstrate effective oral language skills

• Students will demonstrate effective writing skills

Career Opportunities

• hospitals, clinics, medical imaging centers, doctors' offices, educational facilities and equipment manufacturers as:
• radiographers and special procedures technologists
• mammographers, CT technologists and MRI technologists
• nuclear medicine technologists, PET/CT technologists
• radiation therapists
• sales personnel, educators, clinical instructors and hospital administrators

Transfer Opportunities

The A.A.S. degree is primarily intended to prepare students for immediate employment: however, some graduates have gone on to further study in radiation therapy, nuclear medicine, cardiac catheterization and education.

Contact Information

Diagnostic Imaging
Department Chair
(845) 341-4277
Admissions Office
(845) 341-4030

Teaching Assistant

Degree Awarded: Certificate

Meeting only the educational requirements for NYSED Teaching Assistant Certification. See the NYSED website for the requirements for NYS Teaching Assistant Certification.

Recommended Course Sequence

Program Requirements		Credits
ENG 101	Freshman English 1	3
PSY 111	Introduction to Psychology	3
PSY 221	Child Psychology	3
EDU 103	Intro to Early Childhood/ Childhood Education++	3
COM 101	Foundations of Communication	3
EDU 107	Protecting Children's Well-Being	1
_____	Restricted Elective	3
_____	Restricted Elective	3
_____	Restricted Elective	3
	Total:	25

Restricted Elective Options

This program has been developed to include options matching the New York State Teaching Certifications.

Option 1: For students who do not wish to follow a particular grade range.

_____	SUNY General Education course*	3
_____	SUNY General Education course*	3
_____	SUNY General Education course*	3

Option 2: Birth to 2ⁿᵈ Grades (Choose 3)

EDU 201	Observation and Assessment++	3
MAT 111	Foundations of Elementary School Mathematics	3
GEO 101	Elements of Physical Geography	3
HIS ____	SUNY GenEd (Category 4, 5, or 6)	3

Option 3: 1ˢᵗ to 6ᵗʰ Grades (Choose 3)

GEO 101	Elements of Physical Geography	3
MAT 111	Foundations of Elementary School Mathematics	3
_____	SUNY General Ed. Course*	3
_____	SUNY General Ed. Course*	3

Option 4: 7ᵗʰ to 12ᵗʰ Grades

EDU 103	Omit course from program requirement above	
PSY 222	Psychology of Adolescence (Replaces PSY 221)	3
GEO 101	Elements of Physical Geography	3
_____	SUNY General Education course*	3
_____	SUNY General Education course*	3
_____	SUNY General Education course*	3

++Local daytime observations beyond college classroom are required. Students will be placed according to their employment/school needs.

* Each elective must be chosen from the following SUNY General Education categories: Mathematics (GE1), Natural Sciences (GE2), American History (GE4), Western Civilization (GE5), Other World Civilizations (GE6), Humanities (GE7), Arts (GE8), or Foreign Languages (GE9), with at least ONE from either Category 4, 5, or 6. Do not take more than one elective from the same category.

This degree has been approved by SUNY NYS Education Department for online distance learning delivery. This does not mean that SUNY Orange offers every course in the program online; however, many are offered in this format. Please check the current credit course schedule for online DL virtual course listings offered each semester.

Certification Requirements

New York State Requirements

- See New York State Education Department website for the requirements for NYS Teaching Assistant Certification (www.nysed.gov).

Program Learning Outcomes

Students will:

- Communicate effectively both in oral and written formats.

- Articulate a beginning philosophy of education, and demonstrate an awareness of the role of diversity in education.

- Exhibit a beginning understanding of child development

- Demonstrate foundational knowledge of and an appreciation for the cultural, social, and natural worlds

Career Opportunities

Entry-level teaching assistant or paraprofessional in:
- birth to second grade
- first to sixth grade
- seventh to twelfth grade

Transfer Opportunities

All of the courses in the Teaching Assistant Certificate are applicable toward an Associate in Arts and Associate in Sciences degree AND the Jointly Registered Teacher Education Program.

Contact Information

Education
Department Chair
(845) 341-4486
Admissions Office
(845) 341-4030

Visual Communications Technology: Graphic Arts/Printing

Degree Awarded: Associate in Applied Science

Recommended Course Sequence

First Semester	Credits
ENG 101 Freshman English 1	3
_____ Math or Liberal Arts Science	3
ART 103 Drawing 1	2
ART 107 Design 1	3
ART 123 Vis. Com. & Graphic Design 1	3
PES 100 Concepts of Physical Wellness	1

Second Semester	
ENG 102 Freshman English 2	3
ART 124 Vis. Com. & Graphic Design 2	3
ART 104 Drawing 2	2
ART 108 Design 2	3
ART 128 History of Art 2	3
ART 111 Color	2

Third Semester	
_____ Social Science Elective	3
ART 223 Vis. Com. & Graphic Design 3	3
ART 113 Painting 1 **or**	
ART 117 Figure Drawing 1 **or**	
ART 119 Photography 1 **or**	
ART 121 Digital Photography 1 **or**	
ART 225 Web Design 1	3/4
ART 203 Modern Art: The 20th Century	3
_____ Restricted Elective*	3
ART 230 Arts & Communication Practicum	2

Fourth Semester	
_____ Social Science Elective	3
_____ Math or Liberal Arts Science	3
ART 224 Vis. Com. & Graphic Design 4	2
ART 114 Painting 2 **or**	
ART 118 Figure Drawing 2 **or**	
ART 120 Photography 2 **or**	
ART 122 Digital Photography 2 **or**	
ART 226 Web Design 2	3
_____ Restricted Elective*	3
PES ___ Physical Education	1

Total Credits 63-64

Program Description

The Associate in Applied Science degree program in Visual Communications Technology: Graphic Arts/Printing prepares graduates in all aspects of visual communications and graphic design. These include layout, production, typography, commercial print processes, illustration and computer graphics for entry level positions in graphic design, printing, publishing, desktop publishing, advertising, marketing, presentation graphics, game design, animation, multimedia and communications. As a result, the program prepares students for successful portfolio reviews leading to acceptance into B.A. or B.F.A. programs

Beginning with Visual Communications 1, students are introduced to Visual Communications theories, graphic design principles, elements, typography, influential persons and contemporary digital media. The curriculum offers sequential Visual Communications and Graphic Design courses, complemented by a broad offering of studio art and art history courses. After taking core courses in the first year, the student selects a concentration area in either Photography, Painting, Figure Drawing, or Web Design in the second year. Concurrently, the student completes the Visual Communications course sequence culminating with Viscom 4, the portfolio development course. Our Practicum course offers the Viscom student the opportunity to experience an internship with local businesses or departments within the College.

Through an articulation agreement, qualified BOCES candidates can enter the A.A.S. degree program, and receive credit for certain first-year courses. After completing the program, students may either enter the workforce or transfer into a bachelor's degree program (see next page). Detailed course descriptions appear in the course description section of this catalog.

Please note that not all courses are offered in the evening.

> This degree has been approved by SUNY NYS Education Department for online distance learning delivery. This does not mean that SUNY Orange offers every course in the program online; however, many are offered in this format. Please check the current credit course schedule for online DL virtual course listings offered each semester.

Students must complete a two-course sequence in Painting, Figure Drawing, Web Design, Photography or Digital Photography for degree
* *Students select appropriate restricted electives based on their career goals after consultation with their academic advisor. Restricted Electives: ARC 101, ART 113, ART 114, ART 117, ART 118, ART 119, ART 120, ART 121, ART 122, ART 125, ART 127, ART 201, ART 205,ART 207, ART 213, ART 214, ART 215, ART 225, ART 226, CAD 101, CIT 111, COM 101, COM 107, COM 113, COM 115, COM 221, COM 223, COM 225, COM 227, MKT 101, MKT 201*

Visual Communications Technology: Graphic Arts/Printing

Degree Awarded: Associate in Applied Science

Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- assume entry-level positions in visual communications and/or placement in upper-level programs of study.
- demonstrate fundamental concepts and processes of visual communications and graphic design.
- demonstrate an understanding of the visual communications industry and career opportunities in the field of visual communications.
- demonstrate proficiency in industry-standard technology including hardware and page layout, digital imaging, vector drawing, presentation and web design software.
- produce a portfolio appropriate for entry-level roles in visual communications and/or continuing education in upper-level programs.

Career Opportunities

- graphic design, advertising design and marketing
- publishing, desktop publishing and printing
- game design, web design, animation and multimedia
- art direction, illustration, digital photography and color correction

Transfer Opportunities

Although the Associate in Applied Science degree is designed primarily as a professional degree, many students do transfer to baccalaureate programs at other colleges. Many of the courses in the program fulfill New York State general education requirements and thus are easily transferable within the State University of New York system. Presently SUNY Orange has an articulation agreement with Cazenovia College.

Many other students have successfully transferred to

- Fashion Institute of Technology
- Parsons The New School for Design
- SUNY Albany
- SUNY New Paltz
- SUNY Oneonta
- SUNY Purchase
- School of Visual Arts

Contact Information

Arts and Communication
Department Chair
(845) 341-4787
Admissions Office
(845) 341-4030

SUNY General Education Course Listing

Any graduate of an A.A. or A.S. program (except A.S. Engineering Science) transferring to a SUNY institution must fulfill 7 of the following 10 categories.

GE 1. MATHEMATICS
MAT 102   Intermediate Algebra
MAT 111   Foundations of Elementary School Math
MAT 113   Math for the Liberal Arts
MAT 120   Introduction to Statistics
MAT 121   College Algebra
MAT 122   College Trigonometry
MAT 131   Pre-Calculus
MAT 205   Calculus 1
MAT 206   Calculus 2
MAT 207   Calculus 3

GE 2. NATURAL SCIENCES
Biology
BIO 101   General Biology 1
BIO 102   General Biology 2
BIO 110   Introduction to Biology
BIO 141   Diversity of Life
BIO 143   Field Biology
BIO 148   Environmental Conservation
BIO 201   Genetics
BIO 204   General Botany
BIO 205   General Ecology
BIO 210   Study of Biological Habitats
Clinical Laboratory Science
MLT 209   General Microbiology
Chemistry
CHM 103   Applied Chemistry 1
CHM 104   Applied Chemistry 2
CHM 105   General Chemistry 1
CHM 106   General Chemistry 2
CHM 201   Organic Chemistry 1
CHM 202   Organic Chemistry 2
Physical Sciences
AST 120   Astronomy
CHM 120   Elements of Chemistry & Physics
GLG 101   Earth Science
GLG 110   Physical Geology
GLG 112   Historical Geology
PSC 125   Physical Science/Physical World
PSC 140   Physical Science/The Environment
Physics
PHY 101   General Physics 1
PHY 102   General Physics 2
PHY 103   Physics for Science & Engineering 1
PHY 104   Physics for Science & Engineering 2
PHY 105   General Physics with Calculus 1
PHY 106   General Physics with Calculus 2
PHY 108   Acoustics
PHY 111   Architectural Physics
PHY 203   Physics for Science & Engineering 3
PHY 204   Modern Physics

GE 3. SOCIAL SCIENCES
ANT 101   Cultural Anthropology
ANT 102   Human Evolution
ANT 103   Archeology and Prehistory
ECO 201   Macro-Economics
ECO 202   Micro-Economics
GEO 102   Human Geography
POL 101   Introduction to Political Science
POL 102   U.S. Government – State & Local
POL 220   Comparative Governments
POL 221   International Relations
PSY 111   Introduction to Psychology
SOC 101   Introduction to Sociology
SOC 202   Social Inequality
SOC 242   Social of Religion

GE 4. AMERICAN HISTORY
HIS 101   United States History 1
HIS 102   United States History 2
HIS 203   History of African Americans*
only for students scoring 85 or above on NYS American History Regents
IDS 114   American Civil Rights Movements
POL 103   U.S. Government – National

GE 5. WESTERN CIVILIZATION
HIS 230   The Greek & Roman World
HIS 231   Medieval & Renaissance Europe
HIS 232   The Age of Revolutions
HIS 233   Modern Europe

GE 6. OTHER/WORLD CIVILIZATIONS
HIS 121   World History 1
HIS 122   World History 2
HIS 219   Ancient Asia
HIS 220   Modern China & Japan
HIS 221   Modern India & Southeast Asia
HIS 222   The Middle East
HIS 223   Latin American History
HIS 224   Africa: Past & Present
HIS 234   History of Russia and Eastern Europe

GE 7. HUMANITIES
ART 127   History of Western Art 1
ART 128   History of Western Art 2
ART 201   American Art 1700 - 1945
ART 203   Modern Art – the 20th Century
ART 205   Women in Art History
ART 207   Non-Western Art History
COM 105   Media and Society
ENG 102   Freshman English 2
ENG 120   Introduction to Mythology
ENG 203   World Literature: Ancient World through the Renaissance
ENG 204   World Literature: Enlightenment to the Modern Age
ENG 205   Drama: Ibsen-O'Neill
ENG 206   Drama: Contemporary
ENG 207   English Literature: 14th-18th Centuries
ENG 208   English Literature: 19th-20th Centuries
ENG 209   American Literature: To the Civil War
ENG 210   American Literature: 1865 to the Present
ENG 213   Journalism: Survey of Mass Media
ENG 215   Shakespeare
ENG 216   Children's Literature
ENG 217   Film & Literature
ENG 220   Women Writers
ENG 221   Contemporary Short Story
ENG 222   Contemporary Novel
ENG 223   Contemporary Poetry
ENG 225   International Literature: Non-European
ENG 226   Fantasy Fiction

ENG 230	African-American Literature		MUS 131	Elementary Piano 1
ENG 297	Special Studies in Literature: Science Fiction		MUS 132	Elementary Piano 2
HUM 201	Intro to Humanities 1: Ancient to Early Rensaissance		MUS 141	Group Voice 1
HUM 202	Intro to Humanities 2: Rensaissance to 1900		MUS 142	Group Voice 2
HUM 203	Intro to Humanities 3: 1900 to the Contemporary		MUS 151	Chorus
IDS 115	Introduction to Gender		MUS 153	Madrigal Singers
MUS 103	History of Western Music to 1750		MUS 155	Orchestra
MUS 104	History of Western Music from 1750		MUS 157	Chamber Ensemble
MUS 105	History of Jazz		MUS 159	Band
MUS 107	History of Rock Music		MUS 160	Vocal Jazz Ensemble
PHL 111	Hebrew Bible (Old Testament)		MUS 161	Jazz Ensemble
PHL 112	New Testament		MUS 163	Jazz Improvisation 1
PHL 210	Philosophy		MUS 164	Jazz Improvisation 2
PHL 220	Ethics		MUS 170-77	Private Instruction
PHL 230	Concepts of World Religions		MUS 223	Advanced Musicianship 1
			MUS 224	Advanced Musicianship 2

GE 8. ARTS

ART 101	Introduction to Art		MUS 226	Elements of Arranging
ART 103	Drawing 1		MUS 231	Intermediate Piano 1
ART 104	Drawing 2		MUS 232	Intermediate Piano 2
ART 107	Design 1		MUS 233	Advanced Piano 1
ART 108	Design 2		MUS 234	Advanced Piano 2
ART 111	Color		THE 101	Introduction to Theater
ART 113	Painting 1		THE 103	Acting 1: Fundamentals
ART 114	Painting 2		THE 107	Theater Workshop
ART 117	Figure Drawing 1		THE 109	Stage Make-Up
ART 118	Figure Drawing 2		THE 111	Stage Movement
ART 119	Photography 1		THE 113	Intro to Technical Production
ART 120	Photography 2		THE 115	Performing Arts Seminar
ART 121	Digital Photography 1		THE 117	Puppetry/Object Performance Theater
ART 122	Digital Photography 2			

Note: Arts courses must be combined with other one and two credit courses for a total of three credits.

ART 123	VisCom & Graphic Design 1
ART 124	VisCom & Graphic Design 2
ART 125	Sequential Art: Comics Illustration
ART 213	Painting 3
ART 214	Painting 4
ART 215	Portrait Painting

GE 9. FOREIGN LANGUAGE

ART 223	VisCom & Graphic Design 3		CHN 101	Elementary Chinese 1
ART 224	VisCom & Graphic Design 4		CHN 102	Elementary Chinese 2
ART 230	Arts and Communication Practicum		CHN 201	Intermediate Chinese 1
COM 103	Speaking Voice		CHN 202	Intermediate Chinese 2
COM 107	Intro to Video Production		FRE 101	Elementary French 1
COM 108	Digital Video Post-Production		FRE 102	Elementary French 2
COM 111	Digital Radio Production		FRE 201	Intermediate French 1
COM 113	Digital Storytelling		FRE 202	Intermediate French 2
COM 115	TV Studio Production		FRE 203	Advanced French 1
COM 201	Oral Interpretation		FRE 204	Advanced French 2
COM 209	Debate		GER 101	Elementary German 1
COM 221	Cinematography		GER 102	Elementary German 2
COM 223	Screenwriting		ITA 101	Elementary Italian 1
COM 225	Sound Design		ITA 102	Elementary Italian 2
COM 227	Visual Effects		SPN 101	Elementary Spanish 1
DNC 101	Modern Dance 1		SPN 102	Elementary Spanish 2
DNC 102	Modern Dance 2		SPN 201	Intermediate Spanish 1
DNC 201	Advanced Dance 1		SPN 202	Intermediate Spanish 2
DNC 202	Advanced Dance 2		SPN 203	Spanish Conversation & Comp.
ENG 211	Creative Writing: Fiction		SPN 204	Introduction to Spanish Lit.
ENG 212	Creative Writing: Poetry			

MUS 101	Introduction to Music
MUS 113	Introduction to Orchestra
MUS 121	Fundamentals of Music
MUS 123	Basic Musicianship 1
MUS 124	Basic Musicianship 2

GE 10. BASIC COMMUNICATIONS

ENG 101	Freshman English 1 **and**
COM 101	Foundations of Communication
or	
ENG 101	Freshman English 1 **and**
BUS 203	Business Communications

Note: Courses that are a part of the College's General Education requirement and which are followed by an H are Honors sections of regular courses. As such, they are enriched versions of courses that already meet the SUNY General

GUIDE FOR SOCIAL SCIENCE REQUIREMENT

12 Credits of Social Science - select one course from group A, B, C and D

Categories A - D must include at least one SUNY Social Science (GE3) and one SUNY History (GE4, GE5, or GE6) course.

A. Economics, United States History, or United States Government

ECO 201	Macro-Economics (GE3)	HIS 203	History of African-Americans (GE4*)
ECO 202	Micro-Economics (GE3)	HIS 204	American Civil War & Reconstruction (GE4)
ECO 203	Economic Development+	IDS 114	American Civil Rights Movement (GE4)
HIS 101	United States History 1 (GE4)	POL 102	U.S. Government-State & Local (GE3)
HIS 102	United States History 2 (GE4)	POL 103	U.S. Government- National (GE4)

B. Psychology

PSY 100	Psych. of Adjustment	PSY 222	Psychology of Adolescence+
PSY 111	Introduction to Psychology (GE3)	PSY 223	Psych. of Adulthood & Aging+
PSY 102	General Psychology 2+	PSY 230	Abnormal Psychology+
PSY 220	Developmental Psychology+	PSY 240	Social Psychology+
PSY 221	Child Psychology+		

C. Anthropology, Criminal Justice, Human Geography, or Sociology

ANT 101	Cultural & Social Anthropology (GE3)	CRJ 111	Criminology
ANT 102	Human Evolution (GE3)	CRJ 210	Terrorism and Society
ANT 103	Archaeology & Prehistory (GE3)	GEO 102	Human Geography (GE3)
CRJ 101	Criminal Justice	SOC 101	Introduction to Sociology (GE3)
CRJ 103	Understand. Juvenile Offender	SOC 120	Social Problems
CRJ 105	Policy-Community Relations	SOC 231	The Family+

D. History other than U.S., Comparative Government, or International Relations

HIS 121	World History 1 (GE6)	HIS 230	The Greek & Roman World (GE5)
HIS 122	World History 2 (GE6)	HIS 231	Medieval & Renaissance Europe (GE5)
HIS 205	Science, Technology & Society	HIS 232	The Age of Revolution (GE5)
HIS 219	Ancient Asia	HIS 233	Modern Europe (GE5)
HIS 220	Modern China & Japan (GE6)	HIS 234	History of Russian and Eastern Europe
HIS 221	Modern India & Southeast Asia (GE6)	POL 101	Intro to Political Science (GE3)
HIS 222	The Middle East (GE6)	POL 104	Intro to Political Thought
HIS 223	Latin American History (GE6)	POL 220	Comparative Government (GE3)
HIS 224	Africa: Past and Present (GE6)	POL 221	International Relations (GE3)

Only for students scoring 85 or above on NYS American History Regents

+ *these courses have a prerequisite*

The following list is intended to provide guidance in selecting courses that must fall within specific categories to meet degree requirements. This list is not to be confused with degree requirements that state a specific SUNY General Education course must be taken. For example, if your degree requires you to take a SUNY Math, SUNY Social Science, etc., you must follow the SUNY General Education course listing.

Also, if you are pursuing the A.A. Liberal Arts degree, the Social Science requirements are restricted to those courses listed within specific (A-D) categories.

Note: When just a department is noted as meeting the requirement (for example ACC) and there is no number after this designation, this means that all course numbers preceded by ACC meet the requirement.

Social Science Elective

ANT (except ANT 220), CRJ 101, CRJ 103, CRJ 105, CRJ 109, CRJ 111, CRJ 210, ECO, GEO 102, HIS (except HIS 104), IDS 114, POL, PSY, SOC

Math Elective

Any MAT or CSC courses.

Business Elective

ACC, BUS, MGT, MKT, OFT

Liberal Arts Science

AST, BIO, CHM, GEO 101, GLG, MLT 101, MLT 110, MLT 209, PHY, PSC

Liberal Arts Elective

ANT (Except ANT 220), ARC 215, ARC 216, ART, AST, BIO, BUS 105, BUS 203, CHM, CHN, CCS 100, CCS 101, CIT 100, COM, CSC, CRJ 101, CRJ 103, CRJ 105, CRJ 109, CRJ 111, CRJ 210, ECO, EDU 207, ENG, FLD, FRE, GEO, GLG, HIS, HON, HMS 101, HUM, IDS, ITA, MAT, MLT 101, MLT 106, MLT 110, MLT 209, MUS, PHL, PED 111, PED 112, PSC, PHY, POL, PSY, SOC, SPN, THE

General Elective

Any course including PES courses up to 3 credits.

Developmental courses are not applicable toward any degree program.

This page intentionally left blank