

ECHOCARDIOGRAPHY AND VASCULAR ULTRASOUND

Associate in Science Degree

Employment possibilities include:

Noninvasive Cardiovascular Technologist
Echocardiographer/Echocardiography Technologist
Cerebrovascular Ultrasound Technologist

Program Outcome

Students will be prepared for entry-level employment as a professional and competent Cardiovascular Technologist to meet the needs of the local health care community.

Required prerequisites:

Electrocardiography Technician
 Certificate of Achievement

Course	Required Courses			Units
	Fall			
Intro to Echocardiography	CVT	A200	(3)	
Intro to Echocardiography Lab	CVT	A205	(1)	
Echocardiography Clin Lab 1	CVT	A210	(5)	
Sono Physics/Instrumentation	DMS	A150	(4.5)	
	Spring			
Adv Echocardiography	CVT	A250	(2)	
Adv Echocardiography Lab	CVT	A255	(1)	
Cerebrovascular Ultrasound	CVT	A260	(2)	
Echocardiography Clin Lab 2	CVT	A265	(6)	
	Subtotal:			(31)
	Total:			(55.5)

Students are required to obtain a grade of "C" or better in all prerequisites and required courses.

COMMERCIAL ART

ILLUSTRATION DESIGN

The Illustration Design option places its emphasis on a great variety of drawing and painting courses. The diversity of this curriculum may lead the student into career alternatives, such as illustrating for books, magazines, record album covers, and brochures.

Program Outcomes

Upon completion of this program graduates will be able to:

Create a series of illustrations demonstrating techniques and applications of current illustration and design software.

Demonstrate skill development in drawing, perspective, and various media.

Create a portfolio utilizing multiple design techniques for the purpose of gaining employment and/or acceptance to an art college or university for advanced learning.

CERTIFICATE OF ACHIEVEMENT

Course	Required Courses			Units
	First Semester			
Color & Design 2-D	ART	A110	(3)	
Freehand Drawing	ART	A120	(3)	
Rapid Illustration Techniques	DMAD	A117	(4)	
	Second Semester			
Color & Design 3-D	ART	A111	(3)	
Life Drawing	ART	A121	(3)	
Perspective	ART	A125	(3)	
Graphic Design	DMAD	A182	(4)	
	Third Semester			
Painting 1	ART	A130	(3)	
Story Illustration Techniques	ART	A143	(3)	
Figure Composition	ART	A220	(3)	
	Fourth Semester			
Printmaking 1	ART	A170	(3)	
Professional Studies	ART	A180	(1)	
Intro to Marketing	MKTG	A100	(3)	
	Total:			(39)
	Suggested electives:			
Contemporary Art History	ART	A102	(3)	
2D Animation	DMAD	A280	(4)	

ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Arts Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

JEWELRY DESIGN

The Jewelry Design program offers a strong fine arts background in design, materials, and techniques. Further studies at the university level are encouraged; however, potential areas of employment exist in freelance jewelry design, sales, and activities related to retirement and recreational programs.

Program Outcomes

Upon the completion of the classes listed for the certificate for Jewelry Design, students will be able to:

1. Fabricate jewelry such as earrings, brooches, necklaces, from nonferrous metals including semi precious metals.
2. Differentiate between casted jewelry to fabricated jewelry and mass produced jewelry to hand crafted pieces.
3. Demonstrate a basic understanding of repair processes.
4. Design jewelry and complete the design by applying various metalsmithing techniques.

CERTIFICATE OF ACHIEVEMENT

Course	Required Courses			Units
	First Semester			
Color & Design 2-D Freehand Drawing	ART	A110	(3)	
	ART	A120	(3)	
Color & Design 3-D Sculpture 1 Jewelry 1	ART	A111	(3)	
	ART	A141	(3)	
	ART	A147	(3)	
Jewelry 2 Intro to Marketing	ART	A247	(3)	
	MKTG	A100	(3)	
Professional Studies Sculpture 2	ART	A180	(1)	
	ART	A241	(3)	
Total:			(25)	

ASSOCIATE DEGREE

Complete the Certificate of Achievement and Associate in Arts Graduation Requirements as outlined in the Graduation Requirements section of the catalog.

COMPUTER INFORMATION SYSTEMS

The goal of the CIS program is to provide students with the technical skills and systems perspective necessary for entry-level positions in the computer and information industry. Students should not expect that they will necessarily meet the lower division requirements at specific colleges or universities. Students should consult the Transfer Information section of this catalog for specific transfer information.

BUSINESS APPLICATION DEVELOPMENT

Designed to provide a good foundation for students who are interested in developing computer applications. Students may choose courses in a number of areas to develop a general understanding of the field or they may choose to study a particular specialization or two in greater depth. In today's dynamic and changing technological environment, continuous professional upgrading is a requirement.

Program Outcome

Students will be prepared for employment in entry-level positions in the computer and information systems industries.

CERTIFICATE OF ACHIEVEMENT

CORE CURRICULUM

Required Courses

Course			Units
Financial Accounting	ACCT	A101	(4)
Intro to Computer Info Systems	CIS	A111	(3)
Intro to C# .NET Programming*	CS	A140	
(Or)			
Intro to VB .NET Programming*	CS	A142	(4)
(Or)			
Java Programming 1*	CS	A170	
Finite Math	MATH	A154	
(Or)			
Calculus 1	MATH	A180	
(Or)			(4)
Honors Calculus 1	MATH	A180H	
(Or)			
Calculus for Biol Mgmt & Soc. Sci	MATH	A157	
Total:			(15)

Courses marked by asterisk (*) may not be used to satisfy both the core requirement and the specialization requirement.

Students must complete the core curriculum plus 18 units from the following list of specialized application development courses. All courses do not need to be taken from the same area of specialization.

Introductory Programming

Course			Units
Intro to C# .NET Programming*	CS	A140	(4)
Intro to VB .NET Programming*	CS	A142	(4)
Java Programming 1*	CS	A170	(4)

Technical Programming

C++ Programming 1	CS	A150	(4)
Windows .NET Programming	CS	A152	(4)
Data Structures	CS	A200	(4)
Computer Architecture	CS	A216	(4)
C++ Programming 2	CS	A250	(4)
Java Programming 2	CS	A272	(4)

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