

COMPUTING

Associate in Applied Science and Certificates

This degree prepares students for a career in the computer field specializing in one of four areas of emphasis: Microcomputer Applications, Web Mastery, Microcomputer Technology, or Game Programming.

			<u>Credits</u>
New Mexico Common Core Requirements			
ENGL	111G	Rhetoric and Composition	4
ENGL	203G	Business & Professional Communication	
	OR	ENGL 218G Technical and Scientific Communication	3
ACCT	251	Management Accounting	3
	OR	ACCT 252 Financial Accounting	
C S	110G	Computer Literacy	3
	OR	OECS 105 Introduction to Microcomputer Technology	
COMM	265G	Principles of Human Communication	3
	OR	COMM 253G Public Speaking	
ECON	252G	Principles of Microeconomics	3
MATH	120	Intermediate Algebra	3
MATH	121	College Algebra	3
MGT	201	Introduction to Management	3
OECS	290	Computer Technology Capstone	3
PL S	205	Legal and Ethical Issues for the Web	2

Fields of Concentration	
Game Programming	33
Microcomputer Applications	34
Microcomputer Technology	34
Web Mastery	34

Total Credits Required **66-67**

Approved Electives

ART	160	Computer-Based Illustration	3
ART	161	Digital Imaging I	3
ART	269	Advanced Computer-Based Illustration	3
ART	272	Digital Imaging II	3
BCIS	210	Business Programming Using Visual Tools	3
BOT	205	Microcomputer Accounting I	3
BOT	214	Word Processing II	3
CMT	130	Introduction to Web Design	3
CMT	221	Cooperative Experience I	1-3
CMT	230	Web Design II	3
C S	171	Introduction to Computer Science	4
C S	177	C Programming	3
E T	153	Introduction to Computer Networks	2
E T	155	Network Operating Systems I	3
E T	253	Networking Operating Systems II	3
E T	256	Networking Operating Systems III	3
OECS	203	UNIX Operating System	3
OECS	211	Word Processing Applications	3
OECS	215	Spreadsheet Applications	3
OECS	220	Database Application and Design	3
OECS	222	Cooperative Experience II	1-3
OECS	245	Game Programming I	3
OECS	246	Game Programming II	3

If needed, students may take any OECS 1-credit course not already taken as a 3 credit course.

A grade of C or better is required in all courses on the degree and each certificate.

Fields of Concentration

Game Programming Concentration

ART	150	Drawing I	3
ART	161	Digital Imaging I	3
CMT	135	Introduction to 3D Animation	3
CMT	165	Writing and Storyboarding	3
CMT	175	Character Rigging and Animation	3
CMT	182	Environmental Modeling, Shading and Lighting	3
CMT	225	Anatomical Character Design	3
OECS	150	Introduction to Programming Using VB	4
OECS	185	PC Maintenance and Selection I	1
	OR	ET 283 Hardware PC Maintenance (3)	
OECS	203	UNIX Operating Systems	1
OECS	245	Game Programming I	3
OECS	246	Game Programming II	3

Microcomputer Applications

BOT	214	Word Processing II	3
OECS	110	Introduction to PowerPoint	1
OECS	125	Operating Systems	3
OECS	150	Introduction to Programming Using VB	4
OECS	185	PC Maintenance and Selection I	1
	OR	ET 283 Hardware PC Maintenance (3)	
OECS	211	Work Processing Applications	3
	OR	BOT 213 Word Processing I	
OECS	215	Spreadsheet Applications	3
OECS	220	Database Application and Design	3
OECS	221	Cooperative Experience I	3
Electives from approved list			10

Microcomputer Technology

E T	155	Network Operating Systems I	3
E T	253	Networking Operating Systems II	3
E T	256	Networking Operating Systems III	3
OECS	125	Operating Systems	3
OECS	150	Introduction to Programming Using VB	4
OECS	185	PC Maintenance and Selection I	1
	OR	ET 283 Hardware PC Maintenance (3)	
OECS	215	Spreadsheet Applications	3
OECS	220	Database Application and Design	3
OECS	221	Cooperative Experience I	3
Elective from the approved list			8

Web Mastery

ART	161	Digital Imaging I	3
CMT	130	Introduction to Web Design	3
CMT	221	Cooperative Experience	3
CMT	230	Web Design II	3
CMT	275	Advanced Web Techniques	3
OECS	125	Operating Systems	3
OECS	150	Introduction to Programming Using VB	4
OECS	185	PC Maintenance and Selection I	1
	OR	ET 283 Hardware PC Maintenance (3)	
OECS	203	UNIX Operating Systems	3
OECS	216	Programming for the Web	3
OECS	260	Hypertext Markup Language (HTML)	1
		Subtitle: Introduction to HTML	
OECS	260	Hypertext Markup Language (HTML)	1
		Subtitle: Advanced HTML	
Electives from the approved list			3

Certificate in Game Programming

ART	150	Drawing I	3
ART	161	Digital Imaging I	3
CMT	135	Introduction to 3D Animation	3
CMT	175	Character Rigging and Animation	3
CMT	225	Anatomical Character Design	3
C S	110G	Computer Literacy	3
	OR	OECS 105 Intro to Microcomputer Tech	
ENGL	111G	Rhetoric and Composition	4
MATH	120	Intermediate Algebra	3
O CAN	120	Writing and Storyboarding for 3D	3
O CAN	160	Environmental Modeling, Shading and Lighting	3
OECS	150	Introduction to Programming Using VB	4
OECS	185	PC Maintenance and Selection I	1
	OR	ET 283 Hardware PC Maintenance (3)	
OECS	203	UNIX Operating Systems	1
OECS	245	Game Programming I	3
OECS	246	Game Programming II	3

Total Certificate Credits 43

Certificate in Microcomputer Applications

BOT	214	Word Processing II	3
C S	110G	Computer Literacy	3
	OR	OECS 105 Intro to Microcomputer Tech	
ENGL	111G	Rhetoric and Composition	4
MATH	120	Intermediate Algebra	3
OECS	110	Introduction to PowerPoint	1
OECS	125	Operating Systems	3
OECS	150	Introduction to Programming Using VB	4
OECS	185	PC Maintenance and Selection I	1
	OR	ET 283 Hardware PC Maintenance (3)	
OECS	211	Word Processing Applications	3
	OR	BOT 213 Word Processing I	
OECS	215	Spreadsheet Applications	3
OECS	220	Database Application and Design	3
OECS	221	Cooperative Experience I	3
		Electives for the approved list	2

Total Credits Required 36

Certificate in Microcomputer Technology

C S	110G	Computer Literacy	3
	OR	OECS 105 Intro to Microcomputer Tech	
ENGL	111G	Rhetoric and Composition	4
ET	155	Network Operating Systems I	3
ET	253	Networking Operating Systems II	3
ET	256	Networking Operating Systems III	3
MATH	120	Intermediate Algebra	3
OECS	125	Operating Systems	3
OECS	150	Introduction to Programming Using VB	4
OECS	185	PC Maintenance and Selection I	1
	OR	ET 283 Hardware PC Maintenance (3)	
OECS	215	Spreadsheet Applications	3
OECS	220	Database Application and Design	3
OECS	221	Cooperative Experience I	3

Total Required Credits 36

Certificate in Web Mastery

ART	161	Digital Imaging I	3
CMT	130	Introduction to Web Design	3
CMT	221	Cooperative Experience I	3
CMT	230	Web Design II	3
CMT	275	Advanced Web Techniques	3
C S	110G	Computer Literacy	3
	OR	OECS 105 Introduction to Microcomputer Technology	
ENGL	111G	Rhetoric and Composition	4
MATH	120	Intermediate Algebra	3
OECS	125	Operating Systems	3
OECS	150	Introduction to Programming Using VB	4
OECS	185	PC Maintenance and Selection I	1
	OR	ET 283 Hardware PC Maintenance (3)	
OECS	203	UNIX Operating Systems	1
OECS	216	Programming for the Web	3
OECS	260	Hypertext Markup Language (HTML)	1
		Subtitle: Introduction to HTML	
OECS	260	Hypertext Markup Language (HTML)	1
		Subtitle: Advanced HTML	

Total Credits Required 36

Certificate in Basic Computer Skills

This certificate prepares students for computer use in a variety of office settings.

C S	110G	Computer Literacy	3
	OR	OECS 105 Introduction to Microcomputer Technology	
OECS	110	Introduction to PowerPoint	1
OECS	185	PC Maintenance & Selection I	1
	OR	OECS 203 UNIX Operating Systems	
	OR	OECS 260 HTML	
OECS	207	Windows	1
	OR	OECS 125 Operating Systems	
OECS	211	Word Processing Applications	
	OR	BOT 213 Word Processing I	
OECS	215	Spreadsheet Applications	3
OECS	220	Database Application and Design	3

Total Credits Required 15

Certificate in Basic Web Design

This certificate introduces the student to the minimal skills required to create web pages.

C S	110G	Computer Literacy	3
	OR	OECS 105 Introduction to Microcomputer Technology	
OECS	209	Computer Graphic Arts	1
CMT	130	Introduction to Web Design	3
CMT	230	Web Design II	3

Total Credits Required 10

A grade of C or better is required in all courses on each certificate.