

# 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.

<b>New Mexico Common Core Requirements</b>			<b>Credits</b>
ENGL	111G	Rhetoric and Composition	4
ENGL	203G	Business & Professional Communication	
	<b>OR</b>	ENGL 218G Technical and Scientific Communication	3
ACCT	251	Management Accounting	3
	<b>OR</b>	ACCT 252 Financial Accounting	
OECS	105	Introduction to Microcomputer Technology	3
	<b>OR</b>	C S 110 Computer Literacy	
COMM	265G	Principles of Human Communication	3
	<b>OR</b>	COMM 253G Public Speaking	
ECON	252G	Principles of Microeconomics	3
MATH	120	Intermediate Algebra	3
MATH	121G	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

### Campus Requirement

COLL 101	College Success	1
----------	-----------------	---

**Total Credits Required** **67-68**

### 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
CMT	275	Advanced Web Techniques	3
C S	171	Introduction to Computer Science	4
C S	177	C Programming	3
E T	153	Introduction to Computer Networks	3
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
	<b>OR</b>	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
	<b>OR</b>	ET 283 Hardware PC Maintenance (3)	
OECS	211	Word Processing Applications	3
	<b>OR</b>	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
	<b>OR</b>	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
	<b>OR</b>	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	160	Modeling and Animation	3
CMT	165	Writing and Storyboarding	3
CMT	175	Character Rigging and Animation	3
CMT	225	Anatomical Character Design	3
COLL	101	College Success	1
C S	110	Computer Literacy	3
	<b>OR</b>	OECS 105 Introduction to Microcomputer Technology	
ENGL	111G	Rhetoric and Composition	4
MATH	120	Intermediate Algebra	3
OECS	150	Introduction to Programming Using VB	4
OECS	185	PC Maintenance and Selection I	1
	<b>OR</b>	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** 44

**Certificate in Microcomputer Applications**

BOT	214	Word Processing II	3
COLL	101	College Success	1
C S	110	Computer Literacy	3
	<b>OR</b>	OECS 105 Introduction to Microcomputer Technology	
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
	<b>OR</b>	ET 283 Hardware PC Maintenance (3)	
OECS	211	Word Processing Applications	3
	<b>OR</b>	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** 37

**Certificate in Microcomputer Technology**

C S	110	Computer Literacy	3
	<b>OR</b>	OECS 105 Introduction to Microcomputer Technology	
COLL	101	College Success	1
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
	<b>OR</b>	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** 37

**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
COLL	101	College Success	1
C S	110	Computer Literacy	3
	<b>OR</b>	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
	<b>OR</b>	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) Subtitle: Introduction to HTML	1
OECS	260	Hypertext Markup Language (HTML) Subtitle: Advanced HTML	1

**Total Credits Required** 40

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