



## APPLIED TECHNOLOGIES

### Albuquerque Technical Vocational Institute Graduation Evaluation Checklist 2005 - 2006 Catalog

#### MANUFACTURING TECHNOLOGY

##### MEMS Designer Concentration

#### CERTIFICATE AND DEGREE REQUIREMENTS

___ ELEC 103A	(4 credit hours)	Electronics Fundamentals A (ELEC 103L 8 credits)
___ ELEC 103B	(4 credit hours)	Electronics Fundamentals B (ELEC 103L 8 credits)
___ ELEC 104	(4 credit hours)	Electronics Mathematics
___ ELEC 105A	(3 credit hours)	Digital Circuits I (ELEC 105L)
___ ELEC 105B	(3 credit hours)	Digital Circuits II
___ ENG 101	(3 credit hours)	College Writing (ENG 102 is acceptable substitution)
___ MEMS 101	(3 credit hours)	Introduction to MEMS (Formerly PC 210)
___ MEMS 220	(5 credit hours)	MEMS Manufacturing Process
___ MT 105	(4 credit hours)	Manufacturing Concepts
___ SMT 204/204L	(5 credit hours)	Semiconductor Manufacturing Technology/Lab (SMT 201/201L) & (SMT 211/211L)

**TOTAL FOR CERTIFICATE ..... 38**

#### ADDITIONAL ASSOCIATE DEGREE REQUIREMENTS

___ CHEM 121/121L	(4 credit hours)	General Chemistry 1
___ MATH 121	(3 credit hours)	College Algebra
<i>Or</i> ___ MATH 145	(3 credit hours)	Introduction to Probability and Statistics
<i>Or</i> ___ MATH 150	(4 credit hours)	Advanced Algebra
<i>Or</i> ___ MATH 162	(4 credit hours)	Calculus 1
<i>Or</i> ___ MATH 180	(3 credit hours)	Elements of Calculus 1
___ ENG 119	(3 credit hours)	Technical Communications (ENG 219 is acceptable substitution)
<i>or</i> ___ COMM	(3 credit hours)	Communications elective
___ ELEC 118L	(6 credit hours)	Electromechanical Devices (118A & 118B)

___ MEMS 221	(3 credit hours)	MEMS Design I
___ MEMS 223	(3 credit hours)	MEMS Design II
___ MT 281	(3 credit hours)	Statistical Controls
___ MT 290	(3 credit hours)	Materials Science I
___ MT 291	(3 credit hours)	Materials Science II
___ PC 201	(4 credit hours)	Electromechanical Systems Trouble Shooting
___ HUM/SOC	(3 credit hours)	Humanities or Social/Behavioral Science Elective
___ TECH ELEC	(3 credit hours)	Technical Elective (see list)

**TOTAL FOR ASSOCIATE DEGREE ..... 79-80**

**TECHNICAL ELECTIVES**

___ CP 278A	(3 credit hours)	C++ Programming I
___ ELEC 114L	(6 credit hours)	Semiconductor Devices (ELEC 114A & ELEC 114B)
___ ELEC 205L	(4 credit hours)	Analog Circuits
___ ELEC 217	(3 credit hours)	Upgrading and Repairing PC's
___ ELEC 275L	(3 credit hours)	Soldering Techniques (or ELEC 276L & ELEC 277L)
___ ELEC 296	(2-8 credit hours)	Topics
___ ELEC 297	(2-8 credit hours)	Special Problems
___ ELEC 298	(3 credit hours)	Internship
___ ELEC 299	(3 credit hours)	Cooperative Education
___ MATT 101	(2 credit hours)	Metals Math 1
___ MATT 113	(2 credit hours)	Metals Blueprint Reading 11
___ MATT 202	(2 credit hours)	Metallurgy
___ MT 205	(6 credit hours)	Applied Science
___ PHOT 101L	(4 credit hours)	Introduction to Photonics and Photonics Safety (ELEC 111L)

**CHECK CATALOG FOR SPECIFIC PREREQUISITES,  
CREDITS AND CREDIT HOUR REQUIREMENTS**

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**STUDENT'S FULL LEGAL NAME (PRINT)**

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**STUDENT I.D. NUMBER**

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**DEPARTMENT APPROVAL SIGNATURE**

8/16/05  
\_\_\_\_\_  
**DATE**

\_\_\_\_\_  
**ACADEMIC ADVISOR/COUNSELOR SIGNATURE**

\_\_\_\_\_  
**DATE**  
869/1/05