ASSOCIATE OF APPLIED SCIENCE DEGREE (AAS)

The degree provides students with the necessary skills to assist in the planning, design, troubleshooting and maintenance of various devices such as ATM, Kiosks, and slot machines. Instruction includes network management systems such as player tracking/slot management systems or ATM Network Monitoring systems. The appropriate regulations, such as slot machine related gaming regulations or ATM related banking regulations will be covered in each concentration. Key common and specialized components and sub-assemblies of these devices will be covered. For example, some of these components and sub-assemblies are random number generators, opto-couplers, coin comparators, dollar bill acceptors, and printers. Computers and networks using these devices and slot machine gaming are addressed. This two-year program provides the student with the repair methods and procedures used in the industries supported by each concentration. Instruction takes place in a hands-on state-of-the-art environment.

STUDENT LEARNING OUTCOMES – *Graduates of this program will have the opportunity to:*

- Demonstrate a working knowledge of the theory of operation of typical self-serve devices such as electronic slot machines, ATMs, and/or Kiosks; Pseudo Random Number Generators; ROM, PROM, EPROM, EEPROM and RAM; and stepper motors.
- Describe the operation of typical peripheral devices; the external features; the money handling assemblies; the modes of operation in devices such as the slot machine, ATMs, and/or Kiosks.
- Identify electronic circuits and components used in these devices.
- Demonstrate positive work ethics and interpersonal skills in a group environment and to deliver written and oral project reports.
- Characterize and troubleshoot the installation and operation of networks that support devices such as slot machines and computers.
- Demonstrate a working knowledge of personal computers and the embedded computers found in slot machines.
- Show an ability to independently analyze, troubleshoot, repair, construct, and/or design slot machines or other self-service devices.

GENERAL EDUCATION REQUIREMENTS (27 Credits):

	CR	SEMESTER
COMMUNICATIONS: COM 115, ENG 107	3	_____
ENGLISH: ENG 100, 101, 113	3-5	_____
HUMAN RELATIONS: ALS 101, ANTH 101, 112, 201, 205, HIST 105, 106, 107, 150, 151, 210, 247, 260, HMS 130, 135B, 265B, MGT 100B, 283, PHIL 135, PSC 201, PSY 101, 102, 207, 208, 261, SOC	3	_____
MATHEMATICS: MATH 111B	3	_____
SCIENCE: EGG 131, ET 131B	8	_____
FINE ARTS/HUMANITIES/ SOCIAL SCIENCES: AM, ANTH, ART, COM, ECON, ENG 223 or above, GEOG 106 or above, HIST, International Languages, Music, PHIL, PSC, PSY, SOC, THTR, WMST 113	3	_____
U.S. AND NEVADA CONSTITUTIONS: PSC 101 or HIST 101 and HIST 102 or HIST 101 and HIST 217	4-6	_____

SPECIAL PROGRAM REQUIREMENTS (37 Credits):

		CR	SEMESTER
CIT 110	A+ Hardware	3	_____
CSCO 105B	Fundamentals of Voice and Data Cabling	3	_____
CSCO 120	CCNA Internetworking Fundamentals	4	_____

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		CR	SEMESTER
ET 100B or **ET 104B**	Survey of Electronics or Fabrication and Soldering Techniques	2-3	_____
ET 132B	AC for Electronics	4	_____
ET 212B	Digital Logic I	4	_____
ET 238B	Device Peripherals	3	_____
ET 294B	EET Capstone	3	_____
IS 100B or **IS 101**	Core Computing Competency or Introduction to Information Systems	0-3	_____

With at least 4 credits from the following:

ET 205B	Power Supply Theory and Repair	2-3	_____
ET 206B	Video Monitor Theory and Repair	2-3	_____
ET 289B	Electrical Troubleshooting	4	_____

FOR SLOT TECHNOLOGY TECHNICIANS:

CIT 263B	Project Management	3	_____
ET 138B	Introduction to Slot Machine Technology	3	_____
GAM 225	Introduction to Gaming Management	3	_____

FOR SELF-SERVICE DEVICE TECHNICIANS:

ACC 135B	Bookkeeping I	3	_____
CSCO 220	CCNA LAN Switching and Wireless Fundamentals	4	_____

NOTE: Courses with a B suffix (example - XYZ 123B) may be non-transferable for a NSHE baccalaureate degree.

ETSLSE-AAS

64 Total Credits

Students may elect to graduate using the degree requirements in effect at the time of matriculation, or when they declared or changed major or the current catalog. If a program is official after a student has matriculated, the student may choose the degree requirements of the new program. In no case may a student use a catalog which is more than six years old at the time of graduation.

ASSOCIATE OF APPLIED SCIENCE

Guided Pathway
Associate of Applied Science Degree
Engineering Technology – Slot and Self-Serve Device Technology Emphasis
Total Credits – 64 credits

First Semester	Requirement	Credit Hours	Term
Survey of Electronics or Fabrication and Soldering Techniques	ET 100B or ET 104	2	
Communications	COM 115, ENG 107	3	
Fundamentals of Voice and Data Cabling	CSCO 105B	3	
Mathematics	MATH 111B	3	
Concentration Course Slots Self-Serve Device	 ET 138B ACC 135	3	
	TOTAL	**14**	
Second Semester	**Requirement**	**Credit Hours**	**Term**
A+ Hardware	CIT 110	3	
Science	ET 131B	4	
Fine Arts/Humanities/ Social Sciences * *Recommended course for all ET students*	Per Degree Sheet. *MUS 231 Recording Techniques*	3	
English	ENG 100, 101, 113	3	
Prove Core Computer Competency	With either IS 100B (0 credit test) or IS 101 (3 credits)	0	
	TOTAL	**13**	
Summer Session	**Requirement**	**Credit Hours**	**Term**
Human Relations	Courses from degree sheets	3	
AC for Electronics	ET 132B	4	
	Total	**7**	
Third Semester	**Requirement**	**Credit Hours**	**Term**
CCNA Networking Fundamentals	 CSCO 120 **	4	
Digital Logic I	ET 212B	4	
Device Peripherals	ET 238B	3	
Advanced devices or Troubleshooting	ET 205B with ET 206B (Fall) OR ET 289B (Swap with Spring EGG 131)	4	
	TOTAL	**15**	
Fourth Semester	**Requirement**	**Credit Hours**	**Term**
EET Capstone	ET 294B	3	
Concentration Course Slots Self-Serve Device	 CIT 263B, GAM 225 CSCO 220 ***	4	
Science	EGG 131	4	
U.S. & NV Constitutions	PSC 101 or HIST 101 and HIST 102 or HIST 101 and HIST 217	4	
	TOTAL	**15**	
	Degree TOTAL	**64**	

*Fine Arts/Humanities/Social Sciences: MUS 231 Recording Techniques I recommended for all ET students.
** Substitute CIT 110 for CSCO 120 NOTE: Will also need one additional credit.
*** Substitute CSCO 120 for CSCO 220

More detailed information can be found on the ET Web page at http://www.csn.edu/et