Advanced Manufacturing/Automation Technology/Mechatronics

Student Education Plan – First Semester

First Name:	Last Name:
Solano Student ID#:	Major:
Educational Goal:	GE Option:

Course	Yes	No
CIS 001		
IT 151		
IT 101		
MT 166		
Other (Please specify)		

Counselor Name (if known):	Date:

For Counselor Use Only - Notes:

Course descriptions below

CIS 001 - Introduction to Computer Science
An introduction to the hardware and software components of basic computer information systems. Also, an examination of information systems and their role in business. A review of historical, social and cultural implications of computer technology in today's society. Course content will include hands-on familiarization with a computer operating system and common application software. Additionally, the course includes an introduction to computer programming using the Visual Basic.Net language. Students will learn to develop problem specifications, conduct detailed analysis, design algorithms, and construct structured computer programs.

IT 151 - Vocational Mathematics
Focuses on mathematical functions, plane and solid geometry, measurement systems, algebra, and trigonometry applied to specific vocational areas.

IT 101 - Introduction to Mechatronics
Provides an understanding of how mechantronic technology in our lives works using only basic science and math concepts. This course explores basic mechatronic systems commonly found in industry and focuses on their principles of operation, histories, and relationships to one another. Topics will include an exploration of and science behind basic mechanics, fluid power, electrical power, and control systems. Students will learn about these mechatronic technologies through lecture, classroom discussion, and laboratory experiments and projects.

MT 166 - CNC Programming
Operational and theory of Computer Numerical Control (CNC) machinery, with a focus on skill building, safety practices and maintenance to work as an operator. Includes integration of Computer-Aided Design and Computer-Aided Manufacturing (CAM) as well as manual programming techniques.