# SNorthland Pioneer College Mechatronics (MET)-Industrial Electrical, Motors & PLC's

Advising Check Sheet, 2017-18 Catalog

Mechatronics work combines mechanical technology with electrical

and electronic circuitry. This program is designed to prepare students

for careers in a number of diversified manufacturing fields.

EXPANDING MINDS • TRANSFORMING LIVES

## Associate of Applied Science (AAS) Degree



Name:			
ID#:			

**Program Requirements** GPA.....2.0 Credits.....64

Core Courses 23 Credits				
Areas	Courses			
Core Courses	(Each course is worth 4 credits unless noted)			
Required: All Complete 🗆	<ul> <li>MET 130 Industrial Electrical Systems</li> <li>MET 140 Introduction to Programmable Logic Controllers</li> <li>MET 160 Rotating Electrical Machines</li> <li>MET 200 Robotics and Motion Control (3 credits)</li> <li>MET 210 Process Control and Instrumentation</li> <li>MET 220 Advanced Programmable Logic Controllers</li> </ul>			
	General Education Courses 22 Credits			
English	(Each course is worth 3 credits)			
Required:	ENL 101 College Composition I			
6-Credits	Plus one of the following:			
Complete 🗆	<ul> <li>ENL 102 College Composition II</li> <li>ENL 109 Technical Writing</li> <li>SPT 110 Fundamentals of Oral Communication</li> <li>SPT 120 Public Speaking</li> </ul>			
Math	(Each course is worth 3 credits unless noted)			
Required: 3-Credits Complete	<ul> <li>MAT 101 Basic Technical Math</li> <li>MAT 109 Algebra I: Introductory</li> <li>MAT 112 Algebra II: Intermediate</li> <li>MAT 125 Introduction to Statistics</li> <li>MAT 142 College Math with Con App</li> <li>MAT 152 Advanced Algebra</li> <li>MAT 161 Algebra Based Math EE I</li> <li>MAT 162 Algebra Based Math EE II</li> <li>MAT 162 Algebra Based Math EE II</li> <li>MAT 189 Pre-Calculus Algebra/Trig</li> <li>MAT 211 Technical Calculus (4 credits)</li> <li>MAT 231 Calculus II (4 credits)</li> <li>MAT 241 Calculus III (4 credits)</li> </ul>			
Physical & Biological Sciences A-Credits Complete	<ul> <li>(Each course is worth 4 credits)</li> <li>ANT 104 Biological Anthropology &amp; Human Origins</li> <li>BIO 100 Biology Concepts</li> <li>BIO 105 Environmental Biology</li> <li>BIO 160 Introduction to Human Anatomy&amp; Physiology</li> <li>BIO 181 General Biology I</li> <li>BIO 182 General Biology II</li> <li>**CHM 130 Foundational Chemistry</li> <li>**CHM 151 General Chemistry I</li> <li>CHM 152 General Chemistry II</li> <li>GEO 111 Physical Geography</li> <li>GLG 101 Introduction to Geology II – Physical Geology</li> <li>PHY 113 General Physics I</li> <li>PHY 114 General Physics II</li> </ul>			
Computer Science Required: 6-Credits Complete	<ul> <li>(Each course is worth 3 credits)</li> <li>CIS 105 Computer Applications and Information Technology</li> <li>CIS 141 Managing and Maintaining Your PC I (A+)</li> </ul>			

Areas	Courses			
Required: 3-Credits	Students <u>MUST choose one course from either</u> Arts & Humanities <u>OR</u> Social & Behavioral Sciences. <b>(Each course is worth 3 credits)</b>			
Complete 🛛				
Arts & Humanities	<ul> <li>ART 101 Understanding Art</li> <li>ART 115 Art History I</li> <li>ART 116 Art History II</li> <li>ART 215 Native American Art</li> <li>ENL 220 World Literature I</li> <li>ENL 221 World Literature II</li> <li>ENL 224 English Literature I</li> <li>ENL 225 English Literature I</li> <li>ENL 230 American Literature I</li> <li>ENL 231 American Literature II</li> <li>HUM 150 Humanities in the Western World I</li> <li>HUM 151 Humanities in the Western World I</li> <li>MUS 150 Music Appreciation</li> <li>MUS 250 World Music</li> <li>PHL 101 Introduction to Philosophy</li> <li>PHL 105 Introduction to Ethics</li> <li>SPT 130 Introduction to Film</li> <li>SPT 155 History of Television</li> </ul>			
Social & Behavioral Sciences	<ul> <li>PSY 101 Introduction to Psychology</li> <li>*ANT 102 Cultural Anthropology</li> <li>ANT 120 Buried Cities and Lost Tribes</li> <li>ECN 211 Principles of Macroeconomics</li> <li>ECN 212 Principles of Microeconomics</li> <li>*GEO 110 World Regional Geography</li> <li>GEO 120 Human Geography</li> <li>GEO 120 Human Geography</li> <li>*HIS 105 U.S. History to 1877</li> <li>*HIS 106 U.S. History Since 1877</li> <li>*HIS 155 Western Civilization to 1700</li> <li>*HIS 156 Western Civilization since 1700</li> <li>POS 110 American Government</li> <li>PSY 240 Developmental Psychology</li> <li>SOC 101 Introduction to Sociology</li> <li>SOC 121 Social Problems in America</li> <li>SOC 212 Sex and Gender in Society</li> <li>SOC 215 Ethnicity and Race</li> <li>SOC 225 Sociology of the Family</li> </ul>			
Elective Courses 19 Credits				
Required Electives <b>Required:</b>	Choose from any unduplicated MET courses.			
<b>19 Credits</b> Complete	Course:     Course:     Course:			
	Course:     Course:			
Total Credits				

If you are a student with a disability and need accommodations, please contact the Disability Resource and Access office located at the White Mountain Campus. The coordinator, Sandy Manor, travels to all NPC campuses and centers.

An appointment can be scheduled to meet with her by calling (800) 266-7845, ext. 6178.

### **Suggested Semester Plan of Study**

(complete your degree in two years)

Semester 2	L	Credits	Sem	ester 2		Credits
ENL 101 3		Communications		3		
MAT 101 or 109 & higher 3		Arts & Humanities		3		
IMO 151		6	IMO 152			6
Summer Term	ner Term BUS 103			3		
	BUS 144			2		
Semester 3	3	Credits	Sem	ester 4		Credits
IMO 153		6	IMO 154			6
Physical & Biological	Science	4	Required Elec	tive		4
CIS 105		3	Elective			3
			Elective			3
Summer Term	BUS 105			3		
	BUS 231			3		

**Important Dates to Remember:** 

Schedule available online.

Veterans Priority Registration Day.

Last day for schedule changes for FAFSA.

Financial Aid award available to students.

Fall Graduation Application deadline.

Last day to withdraw without a "W" on transcript.

Registration begins at 7:30 a.m.

FAFSA priority deadline.

Fall semester begins.

FAFSA Priority Deadline.

Spring semester begins.

Schedule available online. FAFSA Priority Deadline.

Summer semester begins

Veteran Priority Registration Day.

Registration begins at 7:30 a.m.

Schedule available online. Veterans Priority Registration Day.

**Registration begins at 7:30 a.m.** Last day for schedule changes for FAFSA.

Financial Aid award available to students.

Last day to withdraw without a "W" on transcript. Spring Graduation Application deadline.

Last day to withdraw without a "W" on transcript.

Fall 2017 Semester:

April 10

April 15

April 21

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August 4

August 21

September 1 October 3

October 15

November 13

November 20 November 27

December 15 December 22

January 16 January 29

February 20

March 13

March 15 March 23

March 26

June 4

June 5

Spring 2018 Semester:

Summer 2018 Semester:

July 28

## Your Semester Plan of Study

Semester 1	Credits	Semester 2	Credits
Semester 3	Credits	Semester 4	Credits
Semester 3	Credits	Semester 4	Credits
Semester 3	Credits	Semester 4	Credits
Semester 3	Credits	Semester 4	Credits
Semester 3	Credits	Semester 4	Credits

#### Additional Semesters as Needed

Semester 5	Credits	Semester 6	Credits
Semester 7	Credits	Semester 8	Credits
Semester 7	Credits	Semester 8	Credits
Semester 7	Credits	Semester 8	Credits
Semester 7	Credits	Semester 8	Credits
Semester 7	Credits	Semester 8	Credits

Total Estimated Program Cost	Cost
Tuition (2017)	\$4,608.00
Fees	\$600.00 - \$700.00
Books	\$ 1,400.00 - \$3,000.00
TOTAL:	

\*Tuition, fees and books subject to change without notice. Estimate for 2015-16 and 2016-17 academic years.

#### **Helpful Definitions and Websites**

- See the cost savings in just tuition by completing the first two years of your bachelor's degree at NPC at www.npc.edu/transferU
- Find out more about NPC transfer agreements with other colleges and universities at www.npc.edu/transfer-agreements
- Learn all about Arizona's guaranteed transfer degrees to ASU, NAU and UofA at www.aztransfer.com
- NPC's college catalog is available online at www.npc.edu/college-catalog or from any campus or center adviser.
- <u>Articulation</u>: the process of determining the transfer and applicability of courses from one institution of higher education

to another.

<u>Course Equivalency Guide</u>: shows how community college courses transfer to the three state universities. It also has many equivalencies among the three state universities. It does <u>NOT</u> indicate how a course transfers to a specific degree program. Course equivalencies are "year specific" meaning that in order to see if course work will transfer, you must review the Course Equivalency Guide for the year in which you took the course.