DRAFT
Articulation Agreement
between
New Mexico State University (NMSU)
Department of Engineering Technology
and Surveying Engineering (ETSE)
and
Southwestern Indian Polytechnic Institute (SIPI)

For Students Pursuing a Bachelor of Science Degree
in
Engineering Technology
Major in Electronics and Computer Engineering Technology
Last Modified on May 2, 2008

SIPI:
Attested to on this day of ______________

_________________________________
Dr. Jeffrey Hamley
President
Southwestern Indian Polytechnic Institute

NMSU:
Attested to on this day of ______________

_________________________________
Dr. Krist Petersen
Associate Dean of Engineering
New Mexico State University
Course Articulation between New Mexico State University and Southwestern Indian Polytechnic Institute

For students pursuing a bachelor of science degree in ENGINEERING TECHNOLOGY “Linking Theory and Applications” with a major in Electronics and Computer Engineering Technology

Students wishing to begin their studies at the Community College before transferring to NMSU typically spend at least four semesters and get an AAS or AS degree in Electronics Technology and the Instrumentation and Control Technology program. This is typically followed by four to six semesters at NMSU. An advisor in Engineering Technology should be consulted for all transfers. A complete description of the requirements for the degree may be found below and at the link: http://www.nmsu.edu/Academic_Progs/Undergraduate_Catalog/ch6/et.pdf

This agreement voids all previous agreements and is valid for students transferring to NMSU until modified by the parties.

Note (1): According to 5 NMAC 55.3 a set of 35 semester hours of standardized General Education common core classes in five areas of study may be taken at the Community College and transferred to NMSU in any department. To fulfill all these requirements “may” require the student to take additional classes beyond their AS or AAS degree – see http://hed.state.nm.us/

Note (2): Math sequences may be taken at the Community College and a “math placement” exam will determine the students’ math level upon entering NMSU. It is strongly recommended that transferring students have at a minimum of College Algebra to permit the easiest transition to NMSU College of Engineering – the more math the better!

Note (3): Residency requirement. The last 30 credits used to meet degree requirements must be taken at NMSU, of which at least 20 of these must be upper division.

Note (4): C or better grade requirement. The NMSU College of Engineering requires a C or better grade in all required lower division science, mathematics, engineering and engineering technology courses. This requirement applies to NMSU courses and all transfer courses.

Courses which may be taken at Community College which will transfer to ETSE at NMSU are indicated in blue italics in the degree plan below:

**DEGREE: Bachelor of Science in Engineering Technology**
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen Ed from Area I: Public Speaking</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Gen Ed from Area I: English Composition</td>
<td>3-4</td>
<td></td>
</tr>
<tr>
<td>ET 101, Introduction to Engineering Technology</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>ET 120, Computational and Presentation Software</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ET 182, Digital Logic</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Gen Ed from Area V: Humanities and Fine Arts</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Free elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ELEC 101A and ELEC 105A Basic AC/DC Electronics</td>
<td>6cr.</td>
<td></td>
</tr>
<tr>
<td>ENGR 211 and ENGR 212</td>
<td>6cr.</td>
<td></td>
</tr>
<tr>
<td>MATH 190, Precalculus</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>PHYS 211-211L, General Physics I, General Physics Lab I</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Gen Ed from Area II: Science</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Free elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ELEC 110A and ELEC 110L</td>
<td>5cr.</td>
<td></td>
</tr>
<tr>
<td>COSC 275 Java Programming</td>
<td>3cr.</td>
<td></td>
</tr>
</tbody>
</table>
COSC 195 C++ 3cr.
ET 272, Electronic Devices II 4
ET 282, Digital Electronics 4
MATH 235, 236, Calculus for the Technical Student I, II 6
  Math placement or Math 162 and Math 163 Calc I & II 6cr
PHYS 212-212L, General Physics II, General Physics Lab II 4
  PHYS 162 & Lab Engineering Physics II 3cr.
  NOTE: there is no lab component with PHYS 162 and the 212 Lab
  would still be required.
Gen Ed from Area IV: Social/Behavioral Sciences 3
  Appropriate approved class from this area 3cr.

Junior Year (31 credits)
ET 302, Manufacturing Data Analysis (EST 311G) 3
  Math 145 3cr
ET 324, Linear Integrated Circuits 4
ET 344, Microcomputer Systems 3
ET 362, Software Technology II 3
ET 377, Computer Networking 3
ET 398, Digital Systems 3
Viewing a Wider World from the Business College 3
Approved technical elective 3
  An approved class or group of classes “may” fulfill this requirement
  For example: ELEC 205 & L with ELEC 218 & L
Gen Ed from Area IV: Social/Behavioral Sciences 3
  Appropriate approved class from this area 3cr.
Gen Ed from Area V: Hum. And Fine Arts 3
  Appropriate approved class from this area 3cr.

Senior Year (31 credits)
CE 450, Engineering Economy and Law 3
ET 381 Renewable Energy Technology or ET 365 Building Utilities 3
ET 402, Instrumentation 3
ET 314 Communication Systems I 3
ET 410, Senior Seminar 1
ET 444, Hardware Senior Design 3
ET 462, Remote Access Operating Systems and Advanced Scripting 3
Approved technical electives 6
Gen Ed from Area IV: Social/Behavioral Sciences or
  from Area V: Humanities and Fine Art 3
  Appropriate approved class from this area 3cr.
Viewing a Wider World – outside of Engineering and Business 3
Courses which must be taken at NMSU (do NOT have a corresponding transfer class at SIPI) in the Freshman and Sophomore years:

ET 272, Electronic Devices II 4
ET 282, Digital Electronics 4

For more information contact:
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or
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505/646-2236; FAX: 505/646-6107
e-mail: nmsuet@nmsu.edu

May 1, 2008
Renewable Energy Technology Concentration

What follows is a list of classes and the corresponding basic study areas that will result in a Concentration in “Renewable Energy Technology” within the ECET major. Students can fulfill this Concentration by using their three required technical electives without any additional credit requirements.

**Required**

ET 381 Renewable Energy Technology. Note: this class can not be considered to simultaneously fulfill the requirement for both a technical elective and that for a required class – see ET365 below

**2 Courses From:**

ET 365 Building Utilities – Note: this class can not serve both as a tech. elective and as a required ECET class, toward fulfilling degree requirements

ET 304 Electrical Machines,
ET 374 Electric Power Distribution,
ET 382 Solar Energy,
ET 384 Wind Energy,
ET 396 Heat Transfer and Applications,
ET401 Heating & Air Conditioning Systems,
EE 332 Introduction to Electric Power Engineering,
CHE 466 Fuel Cell and Hydrogen Technology, or

Students may only take one class from the following choices:

1. ET 420 Senior Internship – (must be related to a renewable energy field)
2. ET 435 Senior Design and Project Management (must be related to a renewable energy application)
3. ET 440 Senior Design – (must be related to a renewable energy application)
   ET 441 Senior Project – (must be related to a renewable energy application)

Additionally, it is strongly “recommended” that students select the following courses from the General Education menu options:

**English Composition:** English 218G or 318G “Technical Writing’

**Basic Natural Sciences:** Chem. 110G or 111

**Human Thought and Behavior:** Phil 240G Ethics for Engineering and Scientific Careers

**Viewing a Wider World recommendations:**

- College of AG: AGE/ECON 337G “Natural Resource Economics” or AGHE 380G “Ecosystem Earth; The Impact of Human Activities”
- College of Arts & Science: Phys 303G “Energy and Society in the New Millennium” or Hist 302G “Science in Modern Society” or Hist 303G “History of Technology”
- College of BA&Econ: ECON 337G “Natural Resource Economics” or ECON 384G “Water Resource Economics”