

The Klipsch School of Electrical & Computer Engineering

152-HOUR COMBINED BSEE/MSEE OPTION

Objective: To provide a means for top ECE undergraduates to obtain a BSEE and MSEE with 152 credit hours of coursework (normally: B.S. = 128 hours, M.S. = 30 hours; total = 158 hours).

How the option will work: Students electing to utilize this option will follow the existing undergraduate curriculum for the first seven semesters. In the final undergraduate semester, two graduate courses (> 450 level) will be taken in lieu of two ECE electives listed in the undergraduate curriculum. The student receives a BSEE degree at this point. A thesis-based MSEE program that can be completed in three semesters is shown on page 2. Technical report and coursework-only programs are also possible with appropriate adjustments to this sample program.

Electing the Option: Permission to utilize this option involves two steps: First, during the final semester of the junior year (*e.g., when taking EE 315, 341, or EE 302*), students will petition the ECE department for permission to take the BSEE/MSEE option using the attached application form. Permission to utilize the option will be based on the cumulative grade point average (**>3.5**) and personal recommendations by faculty listed on the departmental application. *Once the ECE department has notified the applicant of permission, the student must then complete the second step of formally applying to the NMSU graduate school (www.gradschool.nmsu.edu/) for admission to graduate school in E&CE; this application to the graduate school is made during the semester of BSEE graduation.*

Direct questions to: Dr. Stephen Horan, Department Head

Curriculum

Example 152-Hour BSEE/MSEE Course of Study

The first 3 years of the course are the same as those in the current undergraduate curriculum. Listed below are the courses to be taken in the final undergraduate year and during the graduate part of the degree. The graduate curriculum shown below is an example only; actual student program will be developed in consultation with a graduate advisor and will be based on the student's goals. The list below applies for a May graduate pursuing the thesis option.

Example 152-Hour BSEE/MSEE Course of Study *Undergraduate 4th Year*

Fall Semester		Spring Semester	
Class	Credits	Class	Credits
EE 498 – Capstone Design I	3	EE 499 – Capstone Design II	3
EE 461 – Systems Engineering	3	VWW Elective	3
EE Elective	3	General Education Elective	3
Engineering Elective	3	Graduate Course replacing Technical Elective	3
ENGL 218 – Technical Writing	3	Graduate Course replacing EE Elective	3
	15		15

Graduate “Year+”

Fall Semester		Spring Semester	
Class	Credits	Class	Credits
Graduate Core Class #1	3	Graduate Core Class #3	3
Graduate Core Class #2	3	Graduate Program Class	3
Graduate Program Class	3	Graduate Program Class	3
	9	EE 599 – MS Thesis	3
			12

Summer

EE – MS Thesis

3

Notes: (1) All MSEE students must take 9 credits from the Klipsch School core. These classes may be taken at any time in the program and can be taken as the graduate classes while an undergraduate, provided all necessary prerequisites are met.

(2) EE 490/498/499 and EE 590 classes not in the regular schedule cannot be used for the graduate courses in this program.

(3) If a course is cross-listed as EE 4xx/5xx, then the EE 5xx version must be taken as the graduate class option; if a student has taken the EE 4xx class as an undergraduate elective, then the EE 5xx class cannot be taken as part of the graduate program

(4) Some technical groups within the department place restrictions on counting 450 – 499 classes as part of the graduate program. Students should consult with a graduate advisor in their preferred technical area to understand which classes will count towards a proposed graduate program.

BSEE/MSEE Options						
BSEE Credits	MS with Thesis		MS with Tech Report		MS Coursework-Only	Total Credit Hours
	Coursework	Thesis	Coursework	Report		
122	24	6	27	3	30	152

Additional Information on the 152-Hour Option

Funding During the Graduate Program

The department provides some type of financial support to many of its graduate students. There are two main types of support available:

- 1) Teaching Assistantship (TA): Graduate students are hired to help with undergraduate instructional duties. Examples of TA duties include grading homework for undergraduate classes, conducting help sessions, and conducting laboratory sessions in one of the undergraduate laboratories.
- 2) Research Assistantship (RA): A graduate student is paid to work on a grant or contract under the direction of the faculty member who has been funded to do the research. Generally, this work will contribute directly to the student's Masters thesis. For most students the RA position is preferable, because the student's job is to conduct research that becomes part of the thesis.

All students admitted to the 152-Hour Option will automatically be considered for open teaching assistant (TA) slots. In general, research assistantships (RA's) are awarded by individual faculty members. Interested students should contact ECE faculty member in the area of interest to the student to indicate interest in being considered for an RA position that may be open. Stipends for beginning students are at Level 1 (see Guidelines for Graduate Assistantships at <http://gradschool.nmsu.edu>). Students receiving a TA or RA are not generally allowed to use the coursework-only option for their MSEE program.

Other Requirements

During the graduate year all students in this program will be subject to the same policies and procedures that apply generally to all graduate students in the Klipsch School.

Benefits

A graduate student receiving quarter-time (10 hours/week) or half-time (20 hours/week) support from the department (TA or RA) qualifies for reduced medical insurance rates; out of state students will receive in-state tuition rates. Students will be required to attend a mandatory benefits orientation that will explain all the benefits for which the student qualifies.

Admission

Departmental admission into the 152-Hour BSEE/MSEE Option will be based on undergraduate grade point average and faculty recommendations. The minimum cumulative grade point average required for admission is **3.5**. The student must also apply for graduate admission through the NMSU graduate school admissions office (Graduate School, MSC 3G, New Mexico State University, PO Box 30001, Las Cruces, NM 88003-8001, www.gradschool.nmsu.edu).

Tuition

During the final undergraduate semester the student pays the usual undergraduate tuition, even though the student is taking two graduate courses. For the graduate year the student pays graduate student tuition rates (see current graduate catalog, course schedule or website for current tuition rates)

Faculty Research Advisor

During the final undergraduate semester the student will be expected to talk to faculty members in the student's area of intended research specialization. The objective will be for the student to identify, with the faculty member's concurrence, a faculty research advisor who will guide the student's program and act as either the thesis or technical report advisor.

Double Majors

This program is open to ECE double majors. Students doing a double major follow the general double major plan plus the additional year of study shown on page 2.



New Mexico State University
 Klipsch School of Electrical & Computer Engineering

152-Hour *BSEE/MSEE* Option
 Departmental Application

Electing the Option: *Students must petition the ECE department during the final semester of the junior year to utilize the BSEE/MSEE option.* Permission to utilize the option will be based on your cumulative grade point average (>3.5) and personal recommendations by faculty listed on this departmental application. Completed application forms should be submitted to Klipsch School main office.

Name _____

SS# /Banner ID _____

Email address: _____

Est. Grad Date: _____

GPA: _____

GRE: *(If already taken)* _____

Graduate Classes to
 be taken while an
 Undergrad _____

Interest Area: _____

Faculty references: _____

(Min. of 3)

**no letters required, for
 office reference only*

OFFICE USE ONLY:

152-Hour Option:

Approved:

Denied: