Emphasis - EE (Electromagnetics)

- M.S. in Engineering Science
- Emphasis - EE (Electromagnetics)
- Degree Requirements

M.S. in Engineering Science

Description

The M.S. in engineering science is offered in a number of emphasis areas: aeroacoustics, chemical engineering, civil engineering, computational hydroscience, computer science, electrical engineering, electromagnetics, environmental engineering, geology, geological engineering, hydrology, mechanical engineering, material science and engineering, and telecommunications.

Minimum Total Credit Hours: 30

Course Requirements

A student must complete the requirements for an emphasis area. For most emphasis areas, the degree may be completed as either a thesis option (30-hour program, to include 6 hours of thesis) or nonthesis option (30- hour program, to include a minimum of 3 hours of a design-oriented project course).

Emphasis - EE (Electromagnetics)

Description

An M.S. in engineering science with emphasis in electromagnetics prepares a student with advanced technical knowledge and communication skills for pursuing a career in industry, engineering research and development, public service, or for doctoral work.

Course Requirements

The M.S. with emphasis in electromagnetics can be taken as a thesis or nonthesis option. Either option requires 10 semester hours of core courses in electromagnetics theory and applications: Numerical Methods in Electromagnetics (Engr 626); Advanced Electrodynamics (Engr 721); Passive Microwave Circuits (Engr 723); and Seminar (Engr 695).

Also required are 8 semester hours in specific areas of electromagnetics, including microwave circuits, antennas, electromagnetics, and computational electromagnetics courses (from among Engr 590, Engr 593, Engr 622, Engr 624, Engr 627, Engr 687, Engr 691, Engr 693 (no more than 2 semester hours), Engr 719, Engr 725, Engr 728, and Engr 699).

For the thesis option, the student must complete 6 hours of electives, including 3 to 6 hours in a minor field. The thesis candidate must take at least 6 hours of thesis.

For the nonthesis option, the student also must complete 9 hours of electives, including 3 to 6 hours as a minor from mathematics, physics, or another area with approval, and technical electives from the areas listed above. The nonthesis candidate also must complete a 3-hour project or research course with written report and oral presentations, and a final oral exam.

Other Academic Requirements

For either option, a candidate must pass a final oral examination.

Degree Requirements

The academic regulations for this degree program, as entered in the University of Mississippi Catalog, are in effect for the current or selected academic year and semester. The University of Mississippi reserves the right to 1) change or withdraw courses; 2) change rules for registration, instruction, and graduation; and 3) change other regulations affecting the student body at any time.

M.S. in Engineering Science

REQUIREMENT	HOURS	DESCRIPTION
Pass oral exam		Student must pass a final oral examination.
Select an emphasis		Student must enroll in one of the MS in Engineering Science emphasis areas: aeroacoustics, chemical engineering, civil engineering, computational hydroscience and engineering, computer science, electrical engineering, electromagnetics, environmental engineering, geological engineering, geology, hydrology, materials science and engineering, mechanical engineering, or telecommunication.
GPA requirements		A cumulative average of not less than 3.0 (B) must be achieved in all graduate work taken.
Engineering Dean's approval		This Degree Audit program is an advising tool only. The student must still apply for a degree by submitting their degree application to engineer@olemiss.edu. The dean's office will make the final certification that the courses listed on the application qualify the student for graduation. The Dean's Office will also determine if other university requirements (GPA, etc.) have been met.

Emphasis - EE (Electromagnetics)

REQUIREMENT	HOURS	DESCRIPTION
Thesis vs non-thesis		Student must complete either the thesis or the non-thesis option for the MS in Engineering Science with Emphasis in Electromagnetics. The student must also submit a thesis or research project to his/her GPC/Chair.
Non-thesis option	30	For the non-thesis option, the student must complete at least 13 hours of core course including Engr 626, Engr 621, Engr 619, Engr 623 and Engr 695; 5 semester hours chosen from Engr 590, Engr 593, Engr 622, Engr 624, Engr 625, Engr 627, Engr 628, Engr 687, Engr 691, Engr 693, and Engr 699; and 9 hours of electives including 3 to 6 hours in a minor field and a technical elective. The student must also complete at least one 3-hour project or research course. All course work must be approved by the student's GPC/Chair.

The University of Mississippi is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award certificates and baccalaureate, master's, specialist, and doctoral degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097, call 404-679-4500, or visit online at www.sacscoc.org for questions about the accreditation.

REQUIREMENT	HOURS	DESCRIPTION
Thesis option	30	For the thesis option, the student must complete at least 13 hours of core course including Engr 626, Engr 621, Engr 619, Engr 623 and Engr 695; 5 semester hours chosen from Engr 590, Engr 593, Engr 622, Engr 624, Engr 625, Engr 627, Engr 628, Engr 687, Engr 691, Engr 693, and Engr 699; and 6 hours of electives including 3 to 6 hours in a minor field. The student must also complete at least 6 hours of thesis credit. All course work must be approved by the student's GPC/Chair.
Thesis or project		For the thesis option, the student must submit a thesis to his/her GPC/Chair. For the non-thesis option, the student must submit a research project to his/her GPC/Chair.

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