Electrical Engineering Program

2022-2023 Graduate Student Handbook

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Statement of Nondiscrimination

The Affirmative Action Plan for the University of Arkansas, Fayetteville, is designed to ensure compliance with applicable portions of Titles VI and VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Executive Orders 111246 and 11375, Revised Order #4, Sections 503 and 504 of the Rehabilitation Act of 1974, the Age of Discrimination Act of 1975, the Americans with Disabilities Act, the Civil Rights Act of 1991, and other federal laws and regulations which would prohibit discrimination in employment and education. It also helps in ensuring University compliance with those sections of Act 99 of 1989 which pertain to employees and with the Arkansas Civil Rights Act of 1993.

The Affirmative Action Policy Statement is incorporated into the University's Affirmative Action Plan. It provides definitions of non-discrimination, equal employment opportunity, and affirmative action. It is the policy of the institution to provide equal employment opportunity to all qualified persons; to prohibit discrimination against any employee or applicant for employment or education because of race, color, religion, sex, age, national origin, veteran's status, or disability, and to promote the full realization of equal employment opportunity through a positive, continuing program of affirmative action. The policy is followed in recruiting, hiring, determination of pay, promotions, University-sponsored training programs, transfers, layoffs, demotions, terminations, social and recreational programs, use of University facilities, fringe benefits, and treatment as individuals. The Office of Affirmative Action monitors compliance of this policy.

Statement on Academic Integrity

Students in the Electrical Engineering Department are committed to the highest ethical and professional conduct. As a student, you are encouraged to be honest, impartial, fair, and equal in your dealings with fellow students, faculty, and staff. Unethical conduct undermines the pursuit of the educational goals of this institution and this department, and erodes the honor, ability, and reputation of its graduates. The Electrical Engineering Department at the University of Arkansas recommends that students and faculty observe the Institute of Electrical and Electronic Engineers Code of Ethics.

IEEE Code of Ethics (approved by the IEEE Board of Directors, August 1990)

1. We, the members of IEEE, in recognition of the importance of our technologies in affecting the quality of life throughout the world, and in accepting personal obligation to our profession, its members and the communities we serve, do hereby commit ourselves to the highest ethical and professional conduct and agree:
2. To accept responsibility in making engineering decisions consistent with the safety, health, and welfare of the public, and to disclose promptly factors that might endanger the public environment;
3. To avoid real or perceived conflicts of interest whenever possible, and to disclose them to the affected parties when they do exist;
4. To be honest and realistic when stating claims or estimates based on available data;
5. To reject bribery in all of its forms;
6. To improve understanding of technology, its appropriate application, and potential consequences;
7. To maintain and improve our technical competence and to undertake technological tasks for others only if qualified by training or experience, or after full disclosure of pertinent limitations;
8. To seek, accept, and offer honest criticism of technical work, to acknowledge and correct errors, and to credit properly the contributions of others;
9. To treat fairly all persons regardless of such factors as race, religion, gender, disability, age, or national origin;
10. To avoid injuring others, their property, reputation, or employment by false or malicious action;
11. To assist colleagues and co-workers in their professional development and to support them in following this code of ethics.

Strict adherence to the foregoing Code of Ethics is a requirement for graduation from the department and the College of Engineering. The complete College of Engineering policy on Academic Ethics is included in the Catalog of Studies. Please refer, also, to the section entitled “Academic Regulations” in the Catalog of Studies.

Welcome from Head of the Department

The University of Arkansas at Fayetteville, a state land grant university, has emerged as a nationally competitive, student-centered research university serving Arkansas and the world in a competitive global environment. The Department of Electrical Engineering contained within the College of Engineering is one of the most research active departments within the University. The department's talented faculty and dedicated staff have developed a high-quality graduate program to fulfill the professional development aspirations of bright and hardworking students. Particular areas of emphasis are on finding new ways to capture the sun's rays, enhancing the reliability of the power grid, protecting the electric grid from cyber-attacks, developing new power modules for high power electronics, researching new ways to detect breast cancer, developing new electronic materials, and using the properties of light to develop new night vision and laser technology.

The department revolves around professional, qualified educators providing quality education to our students including hands-on experience at state of the art laboratory facilities, beneficial work, and advanced leadership opportunities complemented by entrepreneurship training offered by other departments.

The goals of the Department of Electrical Engineering departmental are enhancing and developing programs of excellence in education, research, and service to the state, the nation, and the world; increasing the size and the quality of our student body; enhancing diversity among our faculty, students, and staff; increasing financial responsibility of the unit and increasing public financial support provided by state and other funding sources; increasing private gift support from our alumni and friends; providing opportunities for co-op, interns, training, and employment of our graduates in a competitive global market; ensuring success of our students on all levels and professional studies in key potential technical areas; producing graduates able to pursue life-long learning and continued professional development, capable of undertaking leadership roles in their profession, in their communities, and in the global society; and increasing research funding from government agencies and a wide variety of industries to promote our graduate program.

For over 100 years, the Department has grown its graduate teaching and research missions into a tradition of excellence and achievement as attested by internationally-recognized research centers.

About the Department of Electrical Engineering

The Department of Electrical Engineering at the University of Arkansas was established in 1897. Our EE program at the University of Arkansas has been offering B.S. degrees for over 100 years and has been continuously accredited since 1936. We were one of the first programs in the nation to meet the ABET accreditation standards (criteria 2000). In addition to the Bachelor's Degree (B.S.E.E.), the department also offers the Master's Degree (M.S.E.E.) and the Doctoral Degree (Ph.D.). The Department has a total of 20 tenured and tenure-track positions within the department.

Areas actively pursued are Biochemical, Communications, Computers and Digital Circuit Design, Control Systems, Electric Energy Systems, Electronic Circuit Design, Micro-Electronics/ Photonics, Nano Technology and MEM's, Packaging, Pattern Recognition and Artificial Intelligence, Power, RF and Microwaves, and Semiconductor Devices and Integrated Circuits.

The High Density Electronic Center (HiDEC) has extended its mission to be A Center of Excellence for Nano-, Micro-, Bio-, and Neuro-Electronics, Sensors and Systems with six Research faculty members. For over 100 years we have been integrating a tradition of excellence and achievement with our goals for the future. The electrical engineering graduate is at the forefront of technology leading to the dramatic increase in global communications, the accelerated use of electric power and efficient energy sources, the dominating influence of the computer on modern society, and an impressive host of modern innovative developments. There is wide-spread and expanding use of electronics and electronic equipment for measure and control spreading into diverse areas such as improved healthcare, transportation, traffic control, recreation, computing, agriculture, marketing, manufacturing, education, and numerous other areas and fields.

This expanding use of electronics and electronic equipment has resulted in electrical engineering being the largest of all scientific disciplines, thus assuring a continued demand for electrical engineering graduates throughout business, industry, and government. Our students are our pride and also our future, and they continue to be in high demand in a competitive hiring market. Recent employers of Electrical Engineering Department graduates include the following companies: Raytheon, Entergy, Lockheed Martin, HP, Texas Instruments, Hughes, Northrop-Grumman, Intel, Baldor, Anderson Consulting, Motorola, Exxon, Dow, Whirlpool, National Semiconductor, and Integrated Device Technologies.

Foreword

This Graduate Student Handbook provides detailed statements of the requirements for all graduate degrees offered by the Department of Electrical Engineering, and the descriptions of the procedures to be followed in completing the requirements of each degree program.

The Graduate School publishes The Graduate Catalog which states the various Graduate School requirements and regulations they apply to graduate students in all departments. An attempt has been made in the Electrical Engineering Graduate Student handbook to include all ELEG regulations and requirements that apply to ELEG graduate students together with many of the most commonly encountered Graduate School regulations from the Graduate Catalog. In some instances ELEG requirements are more stringent than those of the Graduate School and in these instances the more stringent requirements apply. If any ELEG regulations violate those of the Graduate School, Graduate School regulations take precedence. It is the responsibility of students to consult both the Graduate School Catalog and this manual when planning or revising their program of studies.

If there are any doubts regarding the interpretation of any regulation or requirements in thus manual, or if there are any questions about the graduate program involving matters not covered in this manual, please consult the ELEG Graduate Advisor and Chairman of the ELEG Graduate Studies Committee Dr. Jingxian Wu at wuj@uark.edu, or the Student Development Specialist, Amanda Andrews, at ara019@uark.edu or 479-575-5735. The ELEG office is located in BELL 3217.

Abbreviations

In the interest of brevity, the following abbreviations are used in this manual:

ELEG	Electrical Engineering, the Department of Electrical Engineering, and the prefix for courses offered by the Electrical Engineering department
GSC	Department of Electrical Engineering Graduate Studies Committee
CGSC	Chairman of the ELEG Graduate Studies Committee and Coordinator of Electrical Engineering Graduate Programs
Grad School	The Graduate School and International Admissions Office of the University of Arkansas
M.S.E.E.	Master of Science in Electrical Engineering
Ph.D.	Doctor of Philosophy in Electrical Engineering as granted by the Department of Electrical Engineering
CSCE	Prefix for courses offered by the Computer Science Computer Engineering Department

Electrical Engineering Graduate Programs

The Electrical Engineering Department of the University of Arkansas offers three graduate programs:

Master of Science in Electrical Engineering, M.S.E.E.
Master of Science in Electrical Engineering, M.S.E.E. Global Campus: emphasis in Power and/or Control
Doctor of Philosophy, Ph.D.

The M.S.E.E. is a generalized Electrical Engineering degree with the maximum freedom to tailor the program to fit the student's interests in the various areas of Electrical Engineering. The candidate for the M.S.E.E. is required to complete a minimum of 24 semester hours of course work and 6 hours of thesis or 30 semester hours of course work and no thesis.

The M.S.E.E. offered through the Global Campus provides distance education in the broader fields of control systems, management, and power engineering for mainly working individuals. This M.S.E.E. has the same requirements of hours, however most students choose the non-thesis option due to the nature of distance education. There is opportunity for customization, and most students find it meets their unique needs.

The Ph.D. degree is awarded in recognition of high scholarly attainments as evidenced by a period of advanced study, the satisfactory completion of certain prescribed examinations, and the development of a dissertation covering original research in Electrical Engineering.

General Requirements for All Electrical Engineering Graduate Students

Residency: Enrollment Requirements

Under various circumstances, a graduate student must maintain full-time status. These include, but are not limited to:

International students on F-1 student visas
Students on graduate assistantships
Students on certain other types of financial aid
M.S. students hoping to transfer credit hours from another accredited U.S. Graduate School (See M.S.E.E. section for more information)

The U.S. Immigration and Naturalization Service requires all graduate level international students to enroll in nine or more hours per semester to maintain their immigration status. The only exceptions are: summer vacation, medical illness, severe language difficulties the first semester the student is on assistantship, or all required course work is completed and the student is making full-time progress towards a thesis, dissertation, or comprehensive exams. Please note that financial difficulties are not a valid reason for failing to maintain full-time status.

Graduate Assistantships (GAs) require a minimum and a maximum number of hours depending on the level of the appointment. This information is found in the appendix. Most GA's have a 50% appointment and must enroll in a minimum of six semester hours during the fall and spring terms and three credit hours for the summer term.

Graduate Credit for Courses

Senior (4000 level) and graduate (5000 and 6000 level) courses may be taken for graduate credit if they are listed in the current Graduate School Catalog. The catalog is found at http://catalog.uark.edu/. The student should check the courses in the catalog before planning his schedule of study and enrolling in them.

3000-level courses may be taken for graduate credit if they are not ELEG courses and they have been approved by the Dean of the Graduate School for graduate credit before the Official Enrollment Report (usually the 11th day of class.) The student's major professor must recommend the course, and the instructor must agree. The instructor for the course must hold graduate faculty status and must certify that he/she will make appropriate adjustments in assignments and grading scales to raise the level of expectation for the student to the graduate level.* Students should use the Graduate Credit for 3000-4000 Level Courses found on the Graduate School website. No more than 20% of the graded coursework in the degree program may be comprised of 3000-level courses carrying graduate credit.

Grievance Policies

The Academic Grievance Procedures for Graduate Students is explained in detail in the Graduate Catalog. It covers the procedures for Graduate Students, Graduate Assistants, and Research and Scholarly Misconduct Policies and Procedures. If the student has a grievance against another student or another employee of the University, or if the student has a grievance which is not academic in nature, the appropriate policy may be found by contacting the Office of Affirmative Action or the office of the Graduate Dean. For policies and procedures pertaining to conduct offenses, consult the Code of Student Life.*

Academic Probation

Whenever a regularly admitted graduate student earns a cumulative grade-point average below 2.85 on graded course work taken in residence for graduate credit, he/she will be warned of the possibility of academic dismissal. When a graduate student has accumulated a minimum of 15 hours of graded course work taken in residence for graduate credit with a cumulative grade-point average below 2.85, and has received at least one warning, he/she will be academically dismissed from the Graduate School. The student's degree program may request that the academic warning period be extended if the program can offer extenuating circumstances as a rationale and is willing to provide a plan of remediation for the student's success. The complete policy is detailed in the Graduate Catalog.

In addition to the policy for probation determined by the Graduate School, a student who makes a grade of C or below in more than three semester hours of graduate work will be placed in departmental probation. (What does this entail?)

Dismissals

Graduate degree programs have the right to dismiss graduate students who do not make adequate academic progress or engage in illegal, fraudulent, or unethical behavior as defined in any of the University codes or policies pertaining to academic and research integrity. There may also be other unusual situations in which a student may be dismissed from a degree program. The complete policy and procedure is detailed in the Graduate Catalog.

The department policy is that a student who makes a grade of C or below in more than six semester hours of graduate course work will be dismissed from the MSEE program.

The M.S.E.E. Degree Program

Degree Requirements

Candidates for the MS degree who present a thesis are required to complete a minimum of 24 semester hours of course work and six semester hours of thesis. Candidates who do not present a thesis are required to complete a minimum of 30 semester hours of course work. Of this course work, a minimum of 12 semester hours must be 5000- or 6000-level Electrical Engineering. At least 15 hours for thesis students and 21 hours for non-thesis students graduate course work must be Electrical Engineering.

Other Information Regarding Course Work

ELEG 588V Special Problems may only account for six hours towards the degree. Students who complete a BSEE at the University of Arkansas, Fayetteville, with a GPA of 3.5 or greater may count up to six hours of Electrical Engineering graduate-level course work completed as an undergraduate student towards the MSEE degree.

Transfer Credit

A maximum of six semester hours of course work may be transferred from another institution within the United States towards the MSEE. Certain criteria must be met and are listed in detail in the Graduate School's Student Handbook. The Transfer Credit Form also lists the criteria and may be found on the Graduate School website. Transfer of credit from an institution outside of the U.S. is generally not accepted but may be considered on a case by case basis.

A student who received a BS at the University of Arkansas may petition to have up to six hours of graduate level courses that were taken during the last semester of the BS but were not used for the BS applied to the MSEE. Students who completed a BSEE at the University of Arkansas, Fayetteville, with a GPA of 3.5 or higher may count toward the MSEE degree up to six hours of ELEG graduate level course work completed as an undergraduate student (commonly called "double-dipping.)

The M.S.E.E. degree will allow transfer of up to nine credit hours of graduate level course work from universities with which the University of Arkansas has a "1+1" M.S.E.E. exchange program. Each course transferred must be graduate level and must be approved for transfer by the Electrical Engineering Graduate Committee. The transferred courses will not count toward the M.S.E.E. requirement for 5000- or 6000- level ELEG courses.

Retroactive Graduate Credit

Graduate students fully admitted into a degree program at the University of Arkansas may request that up to twelve hours of courses taken in the final twelve month period of their undergraduate degree

count toward their graduate degree, if these courses were taken on the University of Arkansas, Fayetteville campus. These courses may not have been used for the undergraduate degree (unless the student is in a program where this has been approved by the Graduate Council), must be approved by the student's advisory committee, and must be at the 5000 level or above. Petition will be by the student's advisory committee. e uired forms ma e found at the Graduate School we site and are linked on the ELEG we site for convenience. major professor to the Graduate School.
https://graduate-and-international.uark.edu/_resources/forms/registration/3000-4000-retro.pdf

Chronological Guide

The main steps for completing the MSEE degree requirements are listed in this section. When necessary, a step may be discussed in greater detail in the sections that follow. e uired forms ma e found at the Graduate School we site and are linked on the ELEG we site for convenience.

. Form the advisory committee. You must choose an advisory committee before the end of your first semester of work. You advisory committee will oversee your work and exams. Your major advisor is the chairman of your advisory committee. You need to consult with your major advisor to select your advisory committee members. Fill out an Advisory Committee form and submit it to the Electrical Engineering department. If the advising committee members are the same as the thesis committee then one form may be used for both committees.

3. Take the MSEE Readiness Assessment. Candidates for the M.S.E.E. degree must take an M.S. Readiness Assessment exam during their first semester of graduate work. This exam is administered by the student's major professor, and is designed to assess the student's undergraduate preparation for his or her graduate work. The student may be required to take whatever undergraduate courses are deemed necessary in addition to the graduate courses specified in items 1-3. Fill out an MSEE Readiness Assessment form and submit it to the Electrical Engineering department.

4. Plan your schedule of study. You, along with your major advisor and advisory committee, will choose all your courses for the master's degree. You should plan to choose these courses during your first semester. You need to do this to avoid missing a course that is only offered once every two years. The Two-year Tentative Schedule of Graduate Courses shows when each course will be offered. Fill out a Schedule of Study form and submit it to the Electrical Engineering department. Global students should use the MSEE Online Schedule of Study form.

5. Choose a Thesis Committee. If you are completing a thesis as part of your degree, you must choose a thesis committee. Your thesis committee will rate your thesis as your final exam. Your major advisor is the chairman of the committee, and will help select its members. Fill out a Thesis Committee form and submit it to the Electrical Engineering department. If the thesis committee members are the same as the advising committee then one form may be used for both committees.

6. Decide the theses title. If you are completing a thesis as part of your master's work, you must decide on the title of your research work. Fill out a Thesis Title form and submit it to the Electrical Engineering department. You should do this at least one semester before you present your thesis.

7. Apply for Graduation.

8. Schedule and announce your final exam. You must announce your exam to the Electrical Engineering department. Fill out the Announcement of Final Exam form and submit it to the Electrical Engineering department. You should do this about a week before your exam. If you are a thesis student, your thesis defense is your final exam. If you are a non-thesis student, you must take a Comprehensive Exam in front of your committee.

9. Complete final exam.

10. Submit a cop of our thesis to the Graduate School to allow for a check of formattin as earl as possi le and at least two weeks efore defense. ou must continue the pre-check process until formattin is full approved the Graduate School efore final upload to ro uest. Send our icrosoft ord or D document to radtad@uark.edu. The Title Page with original signatures, the Intellectual Property Disclosure Form, and the Thesis Submission Form are turned in to the Graduate School by the student. The Dean of the Graduate School is the only person who may sign by proxy for an out of state professor and must receive authorization form that professor. If the student is unable to submit the thesis in person, he/she may authorize someone else to do it for them. The Department requires an electronic copy of the thesis for its records.

11. The ommittee hair must notif the ELEG Student Development Specialist when the student passes their inal omprehensive E am. The will then update the student s De ree Audit certif in the completion of the pro ram.

12. Graduate.

Advising

Prior to the second semester the student must choose a professor who will then serve as his or her major adviser and primary supervisor of graduate work. A student chooses an adviser by talking to professors in his/her area of interest and requesting one of them to serve in that capacity. If the faculty member declines, the student should then choose another. If a student cannot find a major professor, the student should discuss the matter with the CGSC.

After a major professor is identified, the student and adviser will choose the Advisory Committee. The committee consists of the major professor and at least two other members of the graduate faculty. At least two members of the Advisory Committee must be Electrical Engineering faculty. Committee members must hold graduate faculty status of Group 3 or above or adjunct faculty status. Ex officio members, as additional members, may or may not hold graduate faculty status. They may sign the thesis and vote, however the vote will not be binding for conferring the degree.

Once the committee is formed, the student must submit the Master's Committee Form. The student is responsible to collect the signatures. Electronic si natures are accepta le.

To register for classes, the student begins by consulting with his/her major professor to decide which courses to take. The major professor must remove the advising hold in UAConnect before the student will be able to enroll in classes. Campus students then self-enroll with UAConnect. Global students have a different enrollment process, which will be addressed in a later section.

A student may change his/her major professor by finding another professor to serve in that capacity only if the current major professor approves the change. The student should realize that after a professor has made a financial investments in him/her by paying a graduate assistantship it is unlikely that the professor will agree to release the student before the thesis work is completed. To do so would waste the money the professor has invested in the student and would be a disservice to the sponsor who provided the funding. If the professor does agree, then he or she must resign from the committee via email to the Associate Dean of the Graduate School. The student should realize that in addition to submitting a new committee form to the Graduate School, a new schedule of study must be completed and filed with the department and additional courses may be required.

If the student is primarily taking deficiency courses, selecting a major adviser may be delayed until the student begins course work for the degree.

M.S.E.E. Readiness Assessment

Each MSEE student is required to complete a formal MSEE Readiness Assessment administered by his/her adviser or advisory committee during the first semester of his/her MS work. The MS Readiness Assessment exam a) may be oral and/or written, b) should be in as much depth as the adviser or advisory committee considers useful and necessary for the topic, and c) should cover all subjects that the adviser or advisory committee considers important for the student. The student's adviser or advisory committee will be free to assign as many deficiency courses as deems appropriate, and will not be limited in the choice of subjects. The student can be tested on any subject material related to his/her research work or to general electrical engineering knowledge, and can be assigned deficiencies on any subject(s). The deficiency courses which a student may be required to complete are listed at the end of this handbook.

The MSEE Readiness Assessment is a formal requirement for graduation for all Electrical Engineering MS students. There are no exceptions.

Students who do not have a BS in Electrical Engineering or a closely related field are required to take deficiency courses in all core Electrical Engineering subjects unless they can show that they have taken equivalent courses. They are also required to take the MS Readiness Assessment during their first semester of graduate work.

All deficiency courses, whether assigned because of the MSEE Readiness Assessment exam or because the student does not have a BSEE, must be passed with a grade of B or better. Two attempts will be allowed for each deficiency course. At least one deficiency course must be taken each semester until all deficiencies are completed.

Schedule of Study

Prior to the second semester of graduate work, the student must file a Schedule of Study with the department. Global students also submit a copy of the schedule to the Administrative Director of Distance Education. The student's advisory committee must approve the schedule. The student should list all courses and thesis hours he/she expects to apply toward the MSEE degree. The form is found on the ELEG website. Campus students are responsible for getting the signatures, but global students may submit it without signatures.

Up to six semester hours of course work shown in the schedule of study may be changed by memo to the CGSC from the major professor. Additional changes require submission of a new Schedule of Study form signed by the advisory committee.

The program of study must meet all requirements as listed in the current graduate catalog, this manual, or as superseded by action of the Electrical Engineering faculty. A request for waiver of any of these requirements may be made by memo to the GSC stating the waiver desired and the justification for such waiver.

Research

As specified in the Graduate Catalog, all candidates for the MSEE degree must either complete a thesis involving individual research or pursue the non-thesis option.

The student who chooses the thesis option must submit the Master's Thesis Title form and the Master's Thesis Advisory Committee form at least four months prior to the planned graduation. Under usual circumstances the thesis director is the major adviser and the thesis advisory committee is the same as the advisory committee. When both committees are identical they are recorded on the same form.

Students are urged to consult with their thesis committee either individually or as a group on a regular basis during the period of research in order that they may be informed as to their progress and have the opportunity to offer additional guidance.

The student writing a thesis should obtain the latest Guide to Preparing Master's Theses and Doctoral Dissertations from the Graduate School office or website. These requirements must be satisfied in every detail. Each semester the ELEG Student Development Specialist will provide the Graduation Checklist for the current semester which also contains dates and procedures for students writing theses.

The thesis must be submitted electronically to the Graduate School by the deadline. A digital copy must be submitted to the Department of Electrical Engineering. An additional copy may submitted and bound at the request of the major professor, or by the student and paid for at his/her own expense.

Comprehensive Examination for non-thesis MEEE students

All candidates for the MEEE degree must pass a comprehensive oral examination. The exam will cover the coursework taken throughout the MEEE degree. The exam is taken during the student's last semester. The exam can be taken in one of two options:

In option one, the student makes an oral presentation that summarizes his/her coursework taken during the MEEE degree program. The student then answers in-depth technical questions from the committee members during the final oral examination.

In option two, the student prepares a project based on knowledge and skills acquired in one or more 5000 level ELEG courses, makes an oral presentation of the project, and answers in-depth technical questions about the project during the final oral examination.

A "pass" vote by the student's adviser and a majority of the student's advisory committee is required for the student to pass the exam. Students who fail the exam may repeat the exam after completing remedial work that may be assigned by the student's advisory committee. A second failure of the exam will result in non-award of the MEEE degree.

Results of the comprehensive exam will be sent to the Student Development Specialist in the ELEG office and they will update your Degree Audit to certify the completion of your program.

Graduation

In order to be eligible for graduation, a student must have:

- Satisfactorily completed the program of study with a GPA of at least 2.9.
- Passed a written and/or oral final examination.
- Completed all requirements for the MSEE degree within six consecutive years of the date of their first enrollment in the program. Failure to complete the MSEE requirements within this period will result in the removal of the student from candidacy in the MSEE program. (The department may petition for an extension through the Graduate School. The Graduate School Dean is the approving authority.)
- Met any requirements, in addition to the above, that may have been established by the Graduate School.

The M.S.E.E. Degree Program- On-line Program

Electric Power and Control Systems Specializations with Engineering Management

The online Master of Science in Electrical Engineering provides a structured environment for students to continue their education in a manner to gain proficiency in advanced analysis and design methods without the disruptions of returning to being a full-time student. As examples, the online MSEE program is accessible to those on active duty in the military, engineers who are working part-time or seeking to re-enter the workforce after time-off or being away in other activities, those working in a position that requires extensive travel, or working professionals who want to advance to the next stage of their career.

The MSEE online degree presently emphasizes two areas of specialization: (1) electric power and (2) control systems. Within both of these specialization areas students may elect to either pursue a research topic that leads to thesis, or alternatively may choose a non-thesis option that emphasizes coursework. In each of these degree paths, the MSEE student can take a variety of subjects that includes coursework in engineering management.

The degree requirements and steps to completion are the same as the on campus MSEE program. Please refer to the MSEE Degree Program section of this handbook. There are a few difference due to the nature of on-line delivery. First, global students cannot self-enroll. If enrollment were open to self-enrollment, the classes may fill up with on campus students before distance students can enroll. Because of this, global students are enrolled by the Administrative Director of Distance Education, Jane Cromhout.

Students are responsible for obtaining committee signatures. Electronic signatures are allowed on all MSEE and Graduate School forms. Lastly, the final exam is done long distance via Skype or similar service. Global students are not required to come to Fayetteville at any time.

The Ph.D. in Electrical Engineering Program

A Ph.D. is offered by the College of Engineering in the area of Electrical Engineering. All rules and regulations by Electrical Engineering, the College of Engineering, and the Graduate School must be followed.

Degree Requirements

If the student does not have an M.S. degree, a minimum of 42 hours of course work (excluding dissertation hours) beyond the bachelor's degree must be presented in the Ph.D. program. If the student has an M.S. degree, a minimum of 42 hours of course work (excluding thesis and dissertation hours) must be presented in the combined M.S. and Ph.D. programs. The course work must include a minimum of 30 hours of course work at the 5000 and 6000 level, and at least 24 of these 5000- and 6000-level hours must be in electrical engineering. The course work must include GRSD 5003 or MEPH 5383 or EMGT 5033.

The doctoral program must include at least 72 hours of course work and thesis or dissertation hours. A maximum of six of these hours may be thesis hours. The remaining hours that are not course work must be dissertation. The Graduate School requires a minimum of 18 hours of dissertation for graduation.

Transfer Credit

Transfer of credit is not acceptable for doctoral degrees. For doctoral candidates, at the discretion of the advisory committee, the program of study may be adjusted in lieu of work taken at other colleges or universities and recognized by the candidate's committee, but it will not appear on the University of Arkansas academic record. For example, if the advisory committee determines that 12 hours of study from your previous studies will fulfill course requirements at UofA, the required program hours will be reduced by 12 hours. However, you will not see individual classes as "transfers" on your degree audit.

Residency: Enrollment Requirements

In addition to the residency requirements in the General Requirements section of this handbook, the Graduate School stipulates the following: all doctoral students who have been admitted to candidacy must enroll in a minimum of one hour of graduate course work or dissertation credit every semester (fall, spring, summer) until they graduate. Under unusual circumstances, this enrollment requirement may be waived for post-candidacy doctoral students for up to two years, with an approved request for a leave of absence. See the Graduate School Registration and Leave of Absence Policy.

Chronological Guide

The steps to obtaining the Ph.D. are listed in this section. When necessary, they are discussed in greater detail in the sections to follow. Copies of any forms required are found on the ELEG website and the Graduate School website.

1. Choose an Advisory Committee. You must choose an advisory committee before the end of your first semester of work. Your advisory committee will oversee your work and administer exams. Your major advisor is the chairman of your advisory committee, and will help select its members. The minimum number of members on a PhD Advisory Committee is four (4) members of the Graduate Faculty with Group I or Group II Graduate Faculty Status, with the majority of the committee members being inside the Department of Electrical Engineering. At least one member of the Committee must be outside the department. Fill out an Advisory Committee form and submit it to the Electrical Engineering department. If the advising committee members are the same as the dissertation committee then one form maybe used for both committees.

2. Discuss which courses your committee will accept from your M.S. Degree. Your advisory committee must decide which courses they will accept from your M.S. degree. Fill out an MS Course Credit Hours Accepted Towards Ph.D. form and submit it to the Electrical Engineering department.

3. Take your Ph.D. readiness assessment. Your advisor and advisory committee will test your readiness to complete a Ph.D. degree before the end of your first semester. You will be given an exam to determine weaknesses or specific courses of study required. Fill out a Ph.D. Readiness Assessment form and submit it to the Electrical Engineering department. For more details, click here.

4. Decide your schedule of study**.** In cooperation with your major advisor and advisory committee, you will choose all your courses for the entire Ph.D. degree. You will choose them all during your first semester. This means that you must plan your entire degree program at the beginning. This planning ahead is necessary to avoid missing any courses that may be offered only once every two years. The Two-year Tentative Schedule of Graduate Courses shows when each course will be offered. Fill out a Schedule of Study form and submit to the Electrical Engineering department.

5. Choose a Dissertation Committee**.** Your dissertation committee will judge your dissertation defense. You major advisor is the chairman of your dissertation committee, and will help you select its members. The minimum number of members on a PhD Dissertation Committee is four (4) members of the Graduate Faculty with Group I or Group II Graduate Faculty Status, with the majority of the committee members being inside the Department of Electrical Engineering. At least one member of the Committee must be outside the department. Your dissertation committee may or may not be the same as your advisory committee. Fill out a Dissertation Committee form and submit it to the Electrical Engineering department. If the dissertation committee members are the same as the advising committee then one form may be used for both committees.

6. Take the Ph.D. Candidacy Exam. The candidacy exam is taken after completing approximately two years of coursework, but at least one year before completing the Ph.D. degree. This is when the advisory committee will review and critique research plans. Writing a research proposal is part of the candidacy exam. Fill out a Candidacy Exam Announcement and submit it to the Electrical Engineering department. See PhD Candidacy Exam Guidelines for more details.

7. Decide on a Dissertation Title. You must decide on the title of your research work at least one year before your dissertation defense. Fill out a Dissertation Title form and submit it to the Electrical Engineering department.

8. Apply for Graduation through the Graduate School.

9. Announce your final exam. You must announce your dissertation defense to the Graduate School two weeks before the defense. You must announce your dissertation defense to the Electrical Engineering department about a week before the defense. Include your abstract in the announcement for the department.

10. Complete dissertation and defend it. The last step is to complete your dissertation and defend it in front of your committee.

11. Submit the dissertation. Submit a copy of your dissertation to the Graduate School to allow for a check of formatting as early as possible and at least two weeks before defense. You must continue the pre-check process until formatting is fully approved by the Graduate School before final upload to ProQuest. Send our Microsoft Word or PDF document to gradtad@uark.edu.

12. The student submits the Title Page with original signatures, the Dissertation Submission Form, and the Intellectual Property Disclosure Form together to the Graduate School. The Dean of the Graduate School is the only person who may sign by proxy for an out of state professor and must receive authorization from that professor. If the student is unable to submit the dissertation in person, he/she may authorize someone else to do it for them. The Department requires an electronic copy of the dissertation for its records. An additional copy may submitted and bound at the request of the major professor, or by the student and paid for at his/her own expense.

13. The committee chair will inform the Student Development Specialist that the student has successfully defended their dissertation and their Degree Audit will be updated to certify that the student has completed their program.

Many of these steps involve filing a form with the department and the Graduate School. Many forms require approval or signing by the CGSC before submission to the Graduate School, and therefore should be submitted through the department. A copy is filed in the student's record. It is the student's responsibility to submit forms in a timely manner and to follow up that forms were approved and submitted successfully. Forms may be found on the ELEG website and the Graduate School website.

It is emphasized that the completion of the items in this guide in their proper sequence is the responsibility of the student. It is to his/her advantage to complete each step as early as possible in his/her work. In particular it is strongly recommended that the first six items be completed as soon as possible.

Advising

See "Advising" in the MSEE section of this guide. The differences for the PhD student are that the PhD student has his/her adviser assigned at the time of admission. The student and major professor then

choose the Advising Committee. The PhD Advising Committee must have at least four members, and at least one member must be external. An external member is anyone who is not an appointed faculty member in the department of Electrical Engineering. In addition, department adjunct faculty from other departments in the U of A are considered external members and may serve as the major adviser. Adjunct faculty from outside of the U of A (e.g., industry or other universities), may serve as an external member on a committee, but may not be the major adviser. Ex-officio members (outside of the U of A, not adjunct) may sign the title page, but cannot vote on degree confirmation. Emeritus faculty retain all faculty rights. The Graduate Catalog contains detailed information regarding committees and supersedes this handbook.

PhD Readiness Assessment

The PhD Readiness Assessment policy is identical to the MSEE Readiness Assessment. See "M.S.E.E. Readiness Assessment" section of this guide.

Candidacy Examination

The purpose of the Candidacy Examination is to ensure that the student has adequate graduate academic training to undertake a meaningful research effort in the student's chosen area of specialization and to critique the student's proposed research endeavors. The exam is determined by the student's advisory committee after the student has completed all, or nearly all, of graduate coursework, but at least one year prior to completing all other degree requirements.

The student shall prepare a detailed written proposal of their dissertation research in consultation with their dissertation advisor. The proposal must include a well-defined title, the motivation, summary of relevant literature and the state of the art, research objectives, and the proposed methodology for achieving those objectives. Some of the early results that may have been achieved may also be included in the proposal. The main body of the formal presentation shall be no longer than 15 pages. The format for the presentation shall be the same as that required for NSF proposals. The written proposal shall be submitted to the dissertation committee at least one week before the oral part of the candidacy exam.

The student shall make a formal oral presentation of their dissertation proposal to the dissertation committee. During the exam, the dissertation committee will evaluate the presentation according to the program outcomes and will complete an evaluation form that remains at the department. At the completion of the exam the student's dissertation advisor shall turn in the duly filled out and signed Candidacy Exam Announcement form to the Student Development Specialist. The student's Degree Audit will be updated to certify that they have passed their Candidacy Exam.

Upon satisfactorily completing this exam, the student may be admitted to candidacy and may proceed to work toward completion of the remaining requirements of the degree. After this exam has been passed, the student must take one hour of ELEG 700V each semester (special rules for the summer semester are explained below) until the work is completed, whether the student is in residence on campus or not. See the Graduate Catalog for exceptions.

Continuous enrollment is not required during the summer term unless it is the term the student is graduating; PhD students must be enrolled the term of graduation. Other requirements for summer enrollment may exist, such as Visa or TA/GA requirements, so it is up to the student to know his/her requirements and remain in compliance.

Research

All candidates for the PhD degree must complete a dissertation on some topic in the major field. The topic assignment shall be made and a title filed with the Dean of the Graduate School at least one year before the final examination, the specific problem and subject of the dissertation to be determined by the major adviser, the candidate, and the advisory committee. The completed dissertation must be a definite, scholarly contribution to the major field. This contribution may be in the form of new knowledge of fundamental importance, or of modification, amplification, and interpretation of existing significant knowledge.

Students are urged to consult with their dissertation committee either individually or as a group on a regular basis during the period of research in order that they may be informed as to their progress and have the opportunity to offer additional guidance.

The student writing a dissertation should obtain the latest Guide to Preparing Master's Theses and Doctoral Dissertations from the Graduate School office or website. These requirements must be satisfied in every detail. Each semester the ELEG Student Development Specialist will provide the Graduation Checklist for the current semester which also contains dates and procedures for students writing dissertations.

The dissertation must submitted to the Graduate School for a formatting check. When this has been approved, the student will receive instructions on how to upload their dissertation into ProQuest. A digital copy must be submitted to the Department of Electrical Engineering. An additional copy may submitted and bound at the request of the major professor, or by the student and paid for at his/her own expense.

Final Examination

The purpose of the final exam is to ensure that the student has performed PhD level research and has communicated the scope and results of his or her research in written form that would be acceptable to the scientific community. While the examination is primarily concerned with the field of the dissertation, it may also include other aspects of the candidate's graduate work. The examining committee shall consist of the student's dissertation committee and others who may be included at the discretion of the major adviser and the Dean of the Graduate School. Grading will be: pass, do further work and re-examine by the committee, do further work approved by the major adviser, or failure and dismissal from the PhD program. The candidate's major adviser will report to the ELEG GSC and to the Graduate School the results of the final examination.

The following listed courses are allowed as 5000 level ELEG electives.

- CSCE 5043 Advanced Artificial Intelligence
- CSCE 5063 Machine Learning
- CSCE 5073 Data Mining
- CSCE 5273 Big Data Analytics and Management
- CSCE 5643 Computer Communications Networks
- INEG 5313 Engineering Applications of Probability Theory
- INEG 5323 Engineering Applications of Stochastic Processes
- INEG 5613 Linear Optimization Theory
- INEG 6113 Linear Optimization
- STAT 5113 Statistical Inference
- STAT 5343 Stochastic Processes
- STAT 5353 Methods of Multivariate Analysis

At most three hours from the list of 9 CSCE cyber security courses can be counted towards 5000 level ELEG courses hours.

- CSCE 5323 Computer Security
- CSCE 5333Computer Forensics
- CSCE 5433 Advanced Cryptography
- CSCE 5623 Secure Digital System Design
- CSCE 5653 Network Security
- CSCE 5663 Database Security
- CSCE 5753 Wireless Systems Security
- CSCE 5763 Privacy Enhancing Technologies
- CSCE 5833 Computer Architecture Security

No more than 6 hours from the approved list of non-ELEG courses can be counted towards the 15 hours of ELEG 5000 level courses, and the major professor still has the final decision.

Financial Aid

There are many ways in which graduate students pay for their education. These include, but are not limited to, research assistantships, teaching assistantships, fellowships, traineeships, hourly or other employment, Veteran Administration benefits, loans, grants, grant-in-aid, aid to certain target populations, etc. Research and teaching assistantships, referred to as graduate assistantships by the Graduate School, are awarded by individual professors or by the Electrical Engineering Department.

Teaching assistantships primarily involve teaching undergraduate laboratories. International students and resident aliens, whose native language is not English, must demonstrate competency in both spoken and written English. Competency is demonstrated by test scores. A passing score varies according to the test. Specific requirements are detailed on the International Admissions website at

http://international-admissions.uark.edu/graduate-studies/english-proficiency.php. Teaching assistantships are few and competitive, so students should plan for another means of support.

Professors with funded research assistantships available award research assistantships. A student may wish to contact professors in his/her area of interest regarding an assistantship. A list of research areas and the faculty who work in these areas may be found at http://electrical-engineering.uark.edu/research/index.php. Many financial aid packages, especially graduate assistantships, require that a certain minimum and maximum number of credit hours be taken each semester and during the summer.

Certain graduate assistantships pay for all or a portion of a student's tuition. Depending on the percentage of appointment, all tuition or out of state tuition may be paid. Tuition waivers without appointment are not generally available for ELEG students.

The department has more graduate students than available assistantships. Some students will never receive any type of financial assistance from the department during their graduate program. Acceptance into an Electrical Engineering graduate program in no way guarantees financial aid for a student at any time during his/her program.

Appendix

Graduate Assistant Enrollment Requirements- http://international-students.uark.edu/visas-and-immigration/f-students/maintaining-status/requirements.php

English Language Proficiency Requirements- http://international-admissions.uark.edu/graduate-studies/english-proficiency.php

Financial Aid- http://finaid.uark.edu

Scholarship Information- http://scholarships.uark.edu

Visa and other related information- http://international-students.uark.edu

Welcome to the University of Arkansas

This catalog of studies is a comprehensive reference for your years of study — a list of degrees, degree programs and courses offered at the University of Arkansas. In addition, it gives you valuable information such as suggested and required degree plans and information about costs, scholarships and financial assistance, and campus resources. Read it with pleasure and with care.

Take every opportunity to consult your academic adviser to ensure that you are taking advantage of courses and university resources that will help you reach your educational and career goals and graduate on time. Remember, the University of Arkansas is committed to your success. The faculty and staff are here to support you as you work to achieve your goals. Ask for help and advice whenever you need it.

The University of Arkansas is committed to the policy of providing educational opportunities to all qualified students regardless of their economic or social status and will not discriminate on the basis of race, color, sex, creed, sexual orientation, disability, veteran's status, age, marital or parental status, or national origin.

This is Volume 116; Publication Date: June 2022

UNIVERSITY OF ARKANSAS

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479-575-2000

NEWS

U of A Engineering Students Help Children Learn Coding

McMillon Studio Team Partners With NWA Food Bank to Tackle Food Insecurity

U of A Graduate Students Attend Argonne National Laboratory Resource Training Workshop

EVENTS

2023 Senior Awards Application Period

International Student Welcome Day!

9:00am to 4:00pm

Enter to Win Free UREC Faculty or Staff Membership

APPLY Online

Schedule a **VISIT**

Make a **Gift**

UNIVERSITY OF ARKANSAS | Graduate School & International Education

Request for Graduate Credit for 3000/4000 Level Course & Request for Retroactive Graduate Credit

See Graduate School Catalog for complete policies: http://catalog.uark.edu/graduatecatalog/

Student Name: ______________________________ ID Number: ______________________

Email:________________________@uark.edu Signature ______________________________

Select type of request:

◯ ***Request for Graduate Credit for 3000/4000 Level course*** *(Form must be submitted before the course begins)*

◯ ***Request for Retroactive Graduate Credit**** *(Grades will remain part of the undergraduate record, and a mark of CR will be entered for the course on the graduate record)*

It is recommended that the above-named student be authorized to take the following 3000 or 4000 level course(s) for graduate credit OR receive retroactive graduate credit for the following graduate courses taken while an undergraduate, as part of the requirement for the ______________________________________program/degree.

Major Advisor *(required)* ______________________________ Signature ______________________________
name (print)

Department/Program Head/ Chair/Director *(required)* ______________________________ Signature ______________________________
name (print)

Courses Proposed for Graduate Credit/Retroactive Graduate Credit

This form does ***NOT*** override time conflicts or full class. It is presumed by signatures below that pre-requisites have been met.

Semester & Year	Subject Name	Catalog Number	Class Number	Section Number	Variable Hours

Instructor Name (print)______________________ Instructor Signature* ______________________

☐ *Course used for undergraduate degree*

Semester & Year	Subject Name	Catalog Number	Class Number	Section Number	Variable Hours

Instructor Name (print)______________________ Instructor Signature* ______________________

☐ *Course used for undergraduate degree*

Semester & Year	Subject Name	Catalog Number	Class Number	Section Number	Variable Hours

Instructor Name (print)______________________ Instructor Signature* ______________________

☐ *Course used for undergraduate degree*

*Your signature certifies that the student will be/was taught at the graduate level and that you have/had graduate faculty status.

Courses taken before the student was admitted to the Graduate School must be certified by the undergraduate dean that the course was not used to satisfy undergraduate degree requirement by signature below:

I confirm that these courses were not used to satisfy undergraduate degree requirements **OR** the student is in an approved accelerated or 4+1 program which has been approved to apply courses to both the undergraduate and master's degree.

**Undergraduate Dean's Signature
*(Required for Retroactive Graduate Credit request only)*______________________________

APPROVED

Signature of Graduate Deans Office:______________________________ Date:______________

DENIED (Reason):______________________________

Revised: 12/2022

UNIVERSITY OF ARKANSAS | Graduate School & International Education

Master's Committee

Student's Name:_____ ID Number: _____

Degree Sought: _____ Degree Program: _____

Student's Signature: _____ Date: _____

☐ Check for Master's Advisory Committee, which develops the student's program of study, and monitors progress in the program.

☐ Check for Master's Thesis Committee, which is responsible for insuring that the thesis presented meets high academic standards and constitutes a significant contribution to the knowledge of the study area.

☐ Check for BOTH Master's Advisory and Master's Thesis Committee

---

Committee Members

(Please type or print FULL NAME. Example: Jane R. Doe)
(Please NOTE if ex-officio or off campus member)
(If adding or removing one or more members, only that signature needed along with the committee chair and department chair/head)

_____ CHAIR Please **PRINT** full name	_____ signature of chair **required**	○ add	○ remove
_____ Please **PRINT** full name of committee member	_____ signature of committee member	○ add	○ remove
_____ Please **PRINT** full name of committee member	_____ signature of committee member	○ add	○ remove
_____ Please **PRINT** full name of committee member	_____ signature of committee member	○ add	○ remove
_____ Please **PRINT** full name of committee member	_____ signature of committee member	○ add	○ remove
_____ Please **PRINT** full name of committee member	_____ signature of committee member	○ add	○ remove

Department Chair/Head
Or Program Director: __ _____ Date:_____

Approved:_____ Date:_____
Office of the Graduate Dean

This form is to be submitted to the Graduate School as soon as the committee has been selected. Changes to the committee must be done in accordance with Graduate School rules and require the approval of the Graduate School. To electronically submit this form, email it to cfrankli@uark.edu.

Revised: 11/2022

University of Arkansas
Department of Electrical Engineering

MASTER'S DEGREE READINESS ASSESSMENT

Student's Name:_____ ID Number:_____

Major Advisor:_____ Date of Examination:_____

The M.S. Readiness Assessment Exam is taken during the student's first semester of work on the master's degree The student's advisor and/or advisory committee examine his or her knowledge of all undergraduate subjects that the advisor or committee consider important either for the student's thesis research or general education. The advisor and or committee are free to assign deficiency courses in any subjects they consider necessary.

Advisor
(If Examined Only by Advisor)

Type or Print Name _____ Signature (advisor) _____

Advisory Committee
(If Examined by Advisory Committee)

Type or Print Name _____ Signature (Chairman) _____

Type or Print Name _____ Signature _____

Type or Print Name _____ Signature _____

Type or Print Name _____ Signature _____

Type or Print Name _____ Signature _____

Deficiency Courses Assigned
(Write NONE for first course if none are assigned. Use more than one sheet if necessary)

Department	Course Number	Course Title

Search this site

College of Engineering
Electrical Engineering

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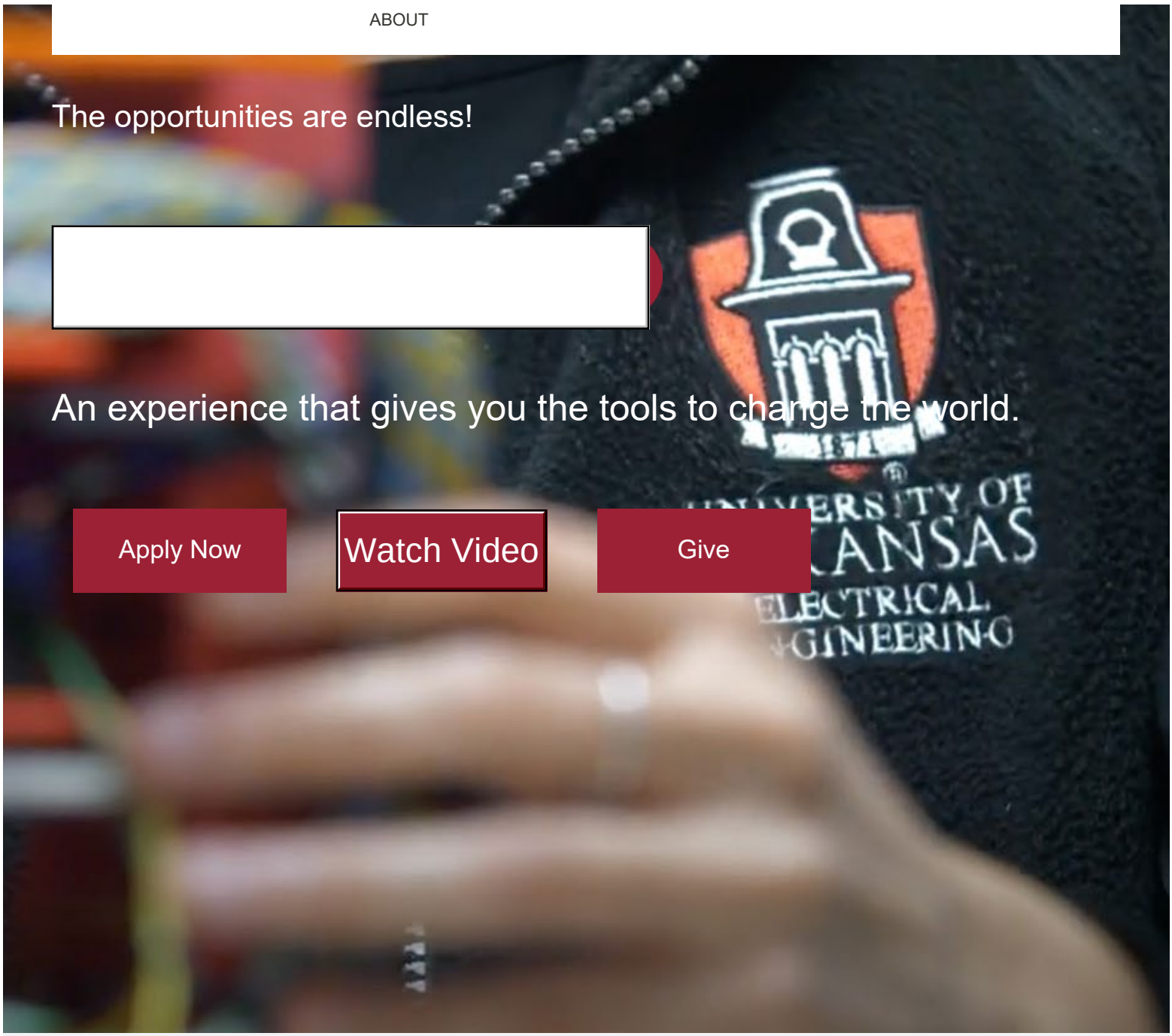
ACADEMICS RESEARCH STUDENT RESOURCES DIRECTORY NEWS ENGAGE

ABOUT



What is Electrical Engineering?

Imagine a world where humans have established a base station on the moon and launched a mission to Mars. Think of a place where renewable energy sources supply most of our electric power needs and electric vehicles roam the roads. Picture a future where 6G communication make digital transmission of data faster, where new electrical materials increase the resolution of smartphone cameras, and wearable electronics monitor our health condition in real-time. As an electrical engineer, you will be empowered to make these visions reality.

Electrical Engineering vs Computer Engineering

15:1

Student to Faculty Ratio

$77K

Average starting salary for our undergraduates in a full time engineering position

> 90%

Graduate School & Employment Placement Rate

5

Leading Research Centers

$450K

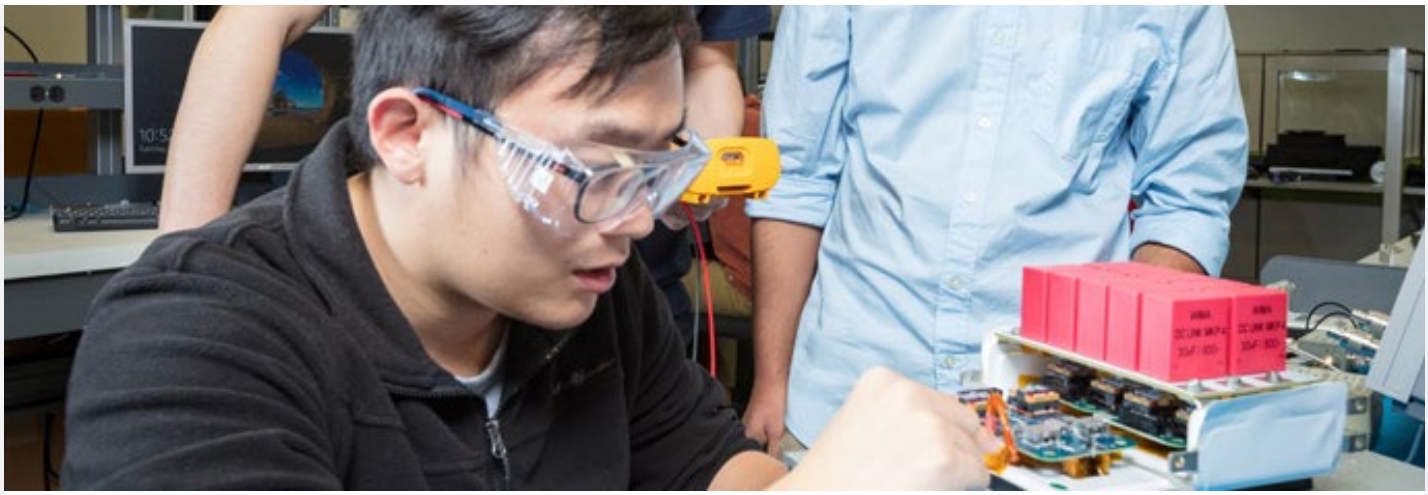
Annual Research Funding per Faculty

303,800

Number of Jobs in 2021

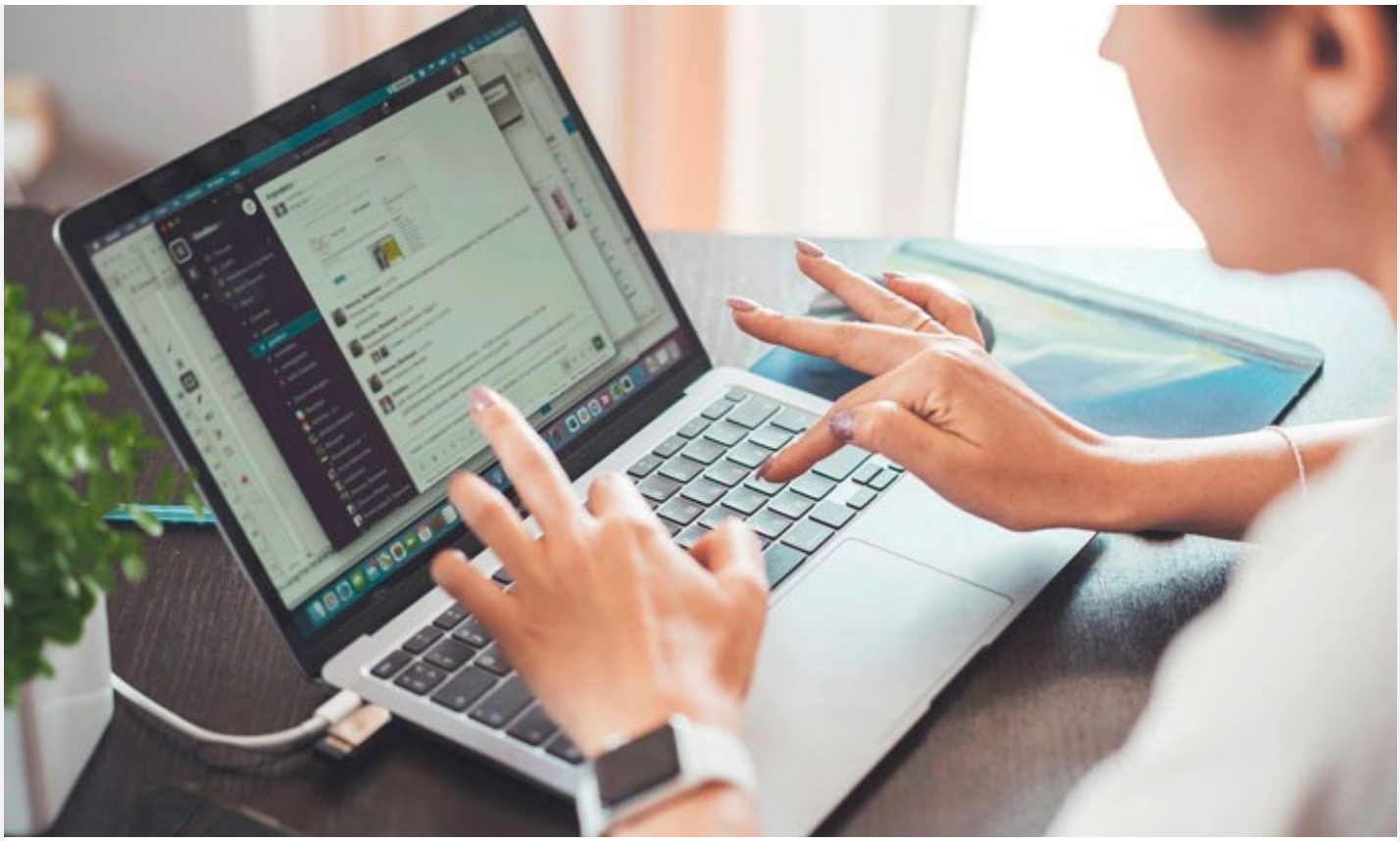
Degrees Offered

Bachelor of Science in Electrical Engineering

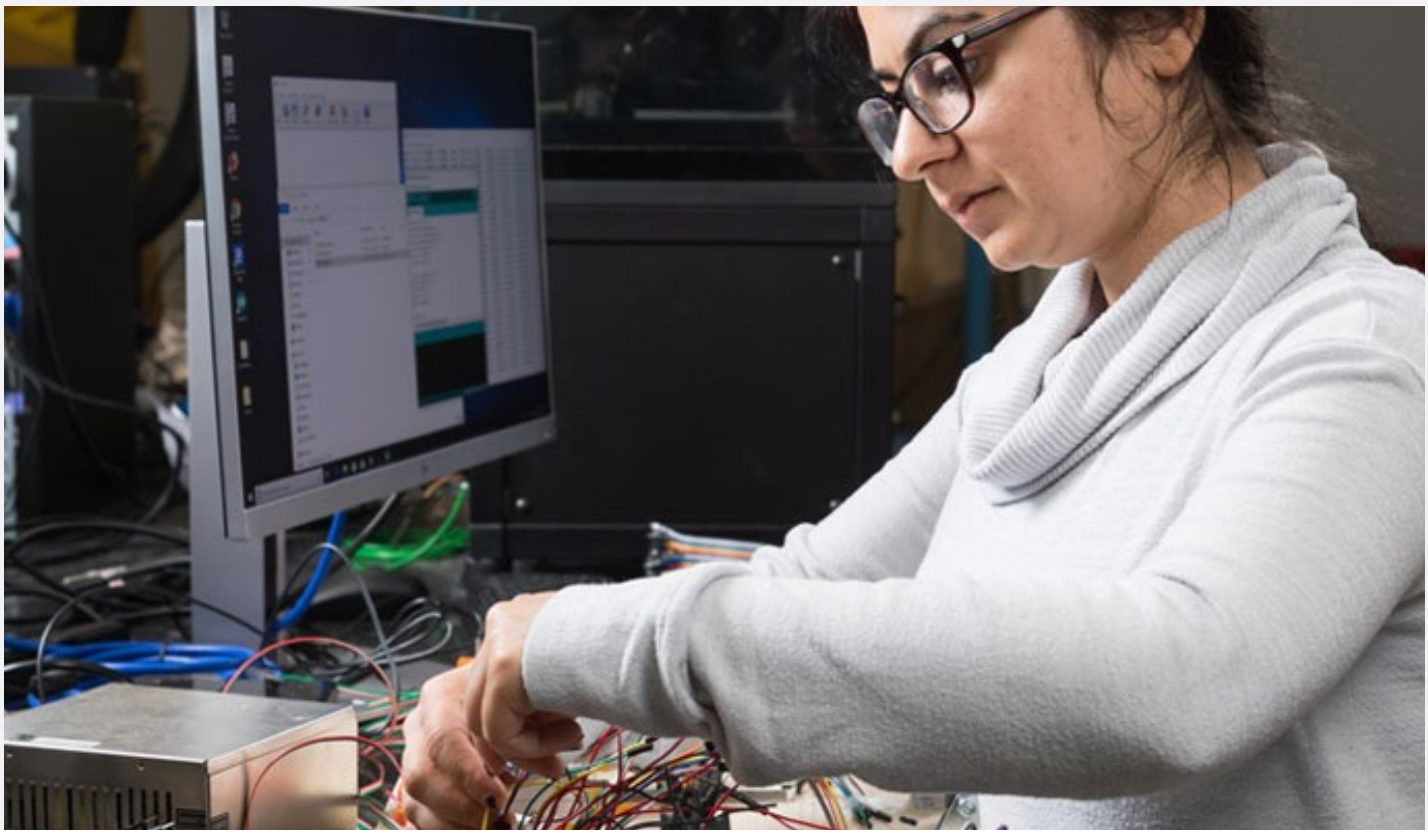


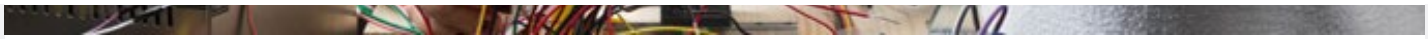
4+1: Combined BS/MS in Electrical Engineering

Master of Science in Electrical Engineering



Master of Science in Electrical Engineering Online





PhD in Electrical Engineering

What areas can I study?

Electrical engineering is a diverse field that embraces many specialty areas. Experience hands-on, active learning in the following areas.

EXPLORE EACH AREA USING THE DROPDOWN

Overview

Overview

Below is an overview of each of the specialty areas of study.

1 2 3 4 5 6 7 8 9

Learn More About the Specialty Areas

Career Outlook

Electrical Engineers can do anything from developing new integrated circuits to helping a medical team create new devices to help save lives!

What You Can Do

- Aerospace engineer
- Automotive engineer
- Controls engineer
- Design computer chips
- Design medical instruments
- Embedded system engineer
- Power Plant Designer
- Substation Engineer
- Engineering Manager
- Power Electronics Designer
- Semiconductor engineer
- Wireless communication engineer

Industries You Can Work In

- Renewable and clean energy
- Electric vehicles (land, ocean, space)
- Robotics and automation
- Smart phones and communication networks
- Smart Grid
- Nanotechnology & optoelectronics

> 90%

Graduate School & Employment Placement Rate

$101,780

2021 Median Wage for Electrical Engineers*

303,800

Number of Jobs, 2021*

*According to the U.S. Bureau of Labor Statistics

Research Resources

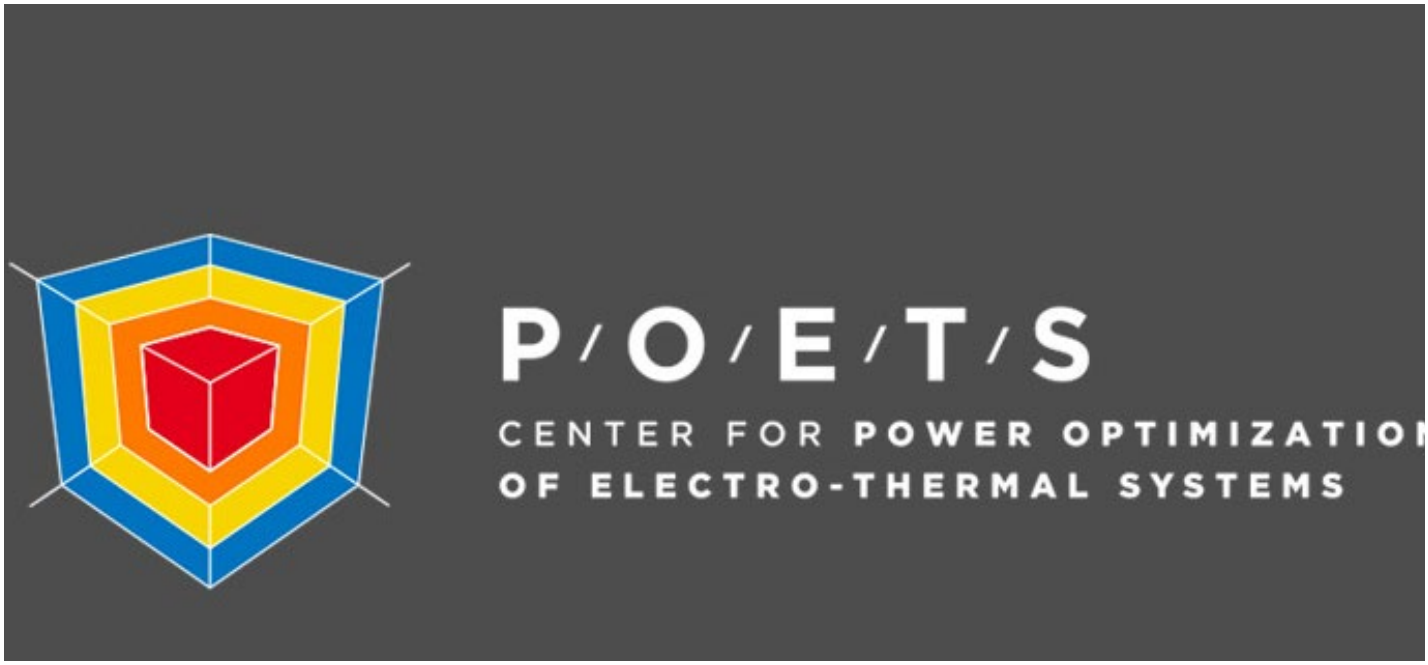
More Research

Research Centers

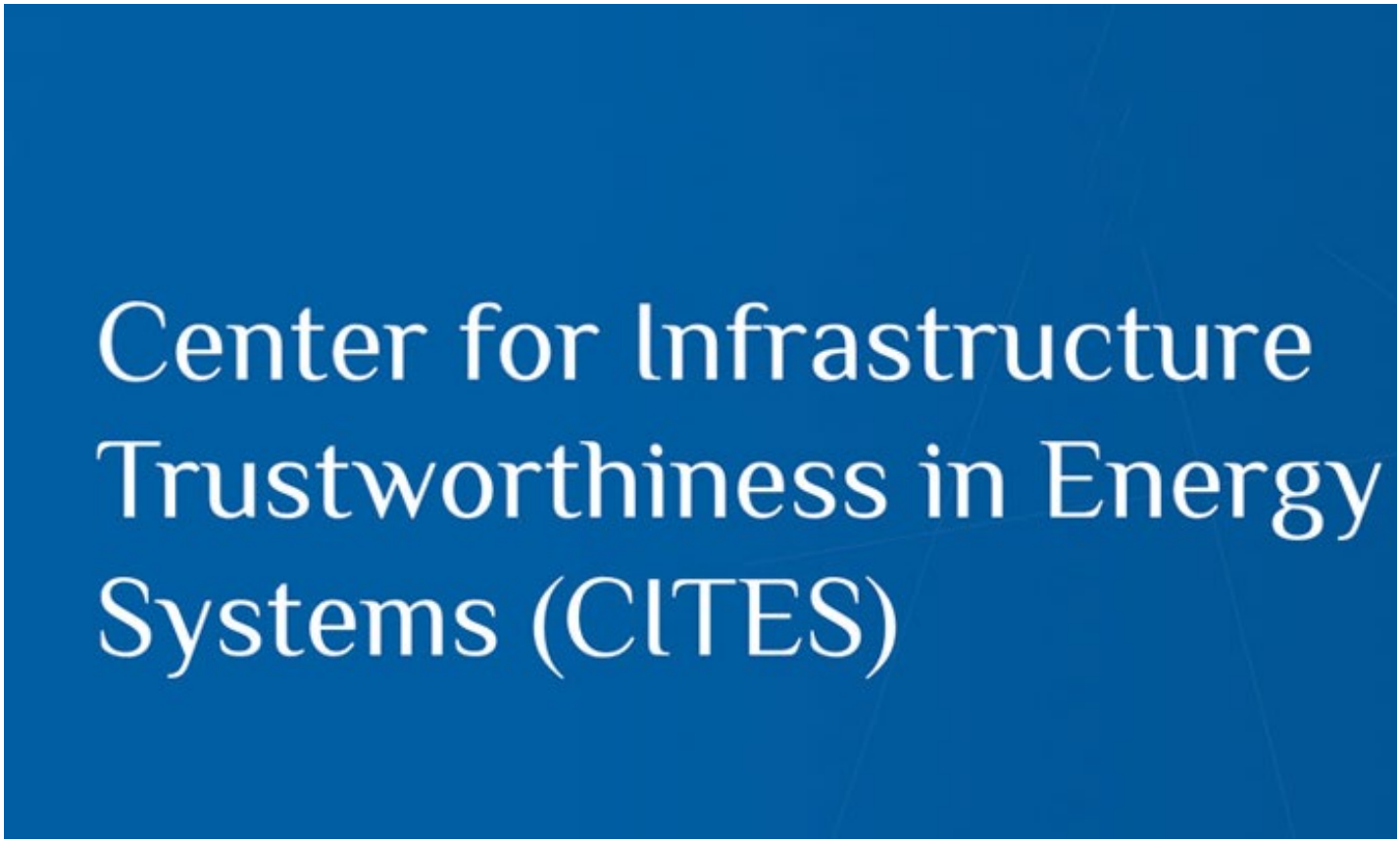
GRid-Connected Advanced Power Electronic Systems (GRAPES) Center

High Density Electronics Center (HiDEC)

National Center for Reliable Power Transmission (NCREPT) □



Center for Power Optimization of Electro-Thermal Systems' (POETS)



Center for Infrastructure Trustworthiness in Energy Systems (CITES)

Explore Other Research Resources

- Research Areas
- Research Laboratories
- Research Professors

- Research Videos
- Research News

Department News

More News

Silicon Carbide Research and Fabrication Facility Secures Tool Essential to Chip-Making Process

Writing Studio Programs Reach Larger Number of Students and Faculty, Leading to Record Semester

Division of Research and Innovation Enters Phase 2 of Pilot for New Proposal Initiation Tool

1 2 3

Information For...

Current Students

Teachers/ Counselors

Industry/ Employers

Veterans/
Military

Alumnus/
Alumnae

Faculty/ Staff

Soon to be
Graduates

Myths About Electrical Engineering

Myth: It's Hard

Fact: Electrical Engineering covers a wide range of topics in math, science and engineering. If you are someone who enjoys math and science, and you enjoy solving problems, then you'll probably find electrical engineering relatively easy to study.

Myth: Electrical Engine

Fact: Electrical enginee
of fields, such as aeros
electrical vehicles, emb
nanotechnology, roboti
microelectronics, smart

Contact Us

Have questions or concerns?

Call (479) 575-3005, email eleg@uark.edu, or visit our contact page.

College of Engineering

3217 Bell Engineering Center,
1 University of Arkansas
Fayetteville, Arkansas 72701
Phone: (479) 575-3005
Fax: (479) 575-7967
Email: rsaunder@uark.edu
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Departments

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Chemical Engineering

Civil Engineering

Computer Science & Computer Engineering

Electrical Engineering

Industrial Engineering

Mechanical Engineering

ELEG Academic Programs

Bachelor of Science in Electrical Engineering

4+1: Combined BS/MS in Electrical Engineering

Master of Science in Electrical Engineering

Master of Science in Electrical Engineering Online

PhD in Electrical Engineering

Graduate Certificates

Quick Links

First Year Engineering Program

Engineering Career Awareness Program

Faculty/Staff Resources

Research Center Shuttle Schedule

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ELEG Student Resources

ELEG News

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U of A Graduate Students Attend Argonne National Laboratory Resource Training Workshop

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APPLY Online

Schedule a **VISIT**

Make a **GIFT**

University of Arkansas
Department of Electrical Engineering
Schedule of Study
(use more than one sheet if necessary)

Name: _____ Degree Program: _____

Course Title	Course Number	Credits	Grade	Instructor
Semester				
Semester				
Semester				
Semester				
Semester				
Semester				

If master's, check Thesis ○ or Non-Thesis ○

_____ _____ _____ _____
Major Professor Member Member Member

University of Arkansas
Department of Electrical Engineering
Schedule of Study, M.S. Programs

Name: _____ ID: # _____

Expected term of completion: _____

Thesis Option **Yes** ☐ **No** ☐

Course Requirements				
Course	**Grade**	**Credits**	**Term & Year**	**Instructor**
ELEG				
ELEG				
ELEG				
ELEG				
ELEG				
ELEG				
ELEG				
Total hours		0		

Other Degree Requirements		
Requirement	**Yes**	**No**
M.S. Readiness Assessment Exam		
Number of 5000- or 6000-level graduate ELEG classes ≥ 4 (12 hours)?		
Minimum of 7 ELEG classes? (Non-thesis option - 21 hours)		
Minimum of 5 ELEG classes? (Thesis option - 15 hours)		
ELEG 588V Special Project hours ≤ 6? (Non-thesis option)		
ELEG 600V Thesis Research hours = 6? (Thesis option)		
Number of "C" grades earned ≤ 2?		
Cumulative GPA ≥ 3.0?		
Comprehensive exam completed? (Non-thesis option)		
Write and defend thesis? (Thesis option)		

Major Professor _____

Signature _____

Date _____

Committee Member _____

Committee Member _____