MATERIALS SCIENCE, PH.D.

Admission Requirements

In order to qualify for regular admission to the doctoral program, a student must have satisfied the following minimum requirements common to all three universities:

- A bachelor's degree (or its equivalent) from an accredited college or university in engineering or one of the physical sciences
- "B"-level scholarship, either overall or for the last 60 semester hours of undergraduate and graduate credit
- A minimum score of 1000 on the Graduate Record Examination general test
- A TOEFL score greater than 550 (or the equivalent on other acceptable language examinations), for international students
- Letters of reference

An applicant whose scholastic record reveals a deficiency in one of the first three categories above may, upon recommendation of the Campus Materials Science Program Committee chairperson (on the campus to which the student has applied) and with approval of the respective graduate dean, be admitted on a provisional basis, as provided in graduate school regulations at each campus. However, that student must follow the appropriate graduate school's policies in achieving regularly admitted status prior to taking Program Examination I (the examination on core material).

Additional information is in the Admission Criteria section of this catalog.

See the Admission Criteria section of this catalog for more information.

Advisement

Prior to a student's admission to the program, the student will usually discuss (perhaps via email) possible research areas with one or more faculty members. If the student is admitted to the program, the letter of admission will designate a faculty member as the tentative dissertation advisor. The advisor and/or research area can be changed during the course of study if it appears beneficial to the student, with the approval of the Campus Materials Science Program Committee.

The advisor will assist the student in program planning and other academic matters. The letter of admission will also designate one of the participating departments as the tentative home department (normally the department of the tentative advisor), and state whether the student will be financially supported by a Materials Science Program assistantship (some students have support from outside the program instead.)

A graduate supervisory committee will be appointed for the PhD student as soon as he or she passes Program Examination I and a research project is selected. The student and the advisor are responsible for recommending supervisory committee members, which must then be approved by the Campus Coordinator. Members of the committee will normally be selected from participating faculty in the Materials Science Program from the three campuses involved. Exceptions must be approved by the Campus Coordinator. The graduate committee normally includes the research advisor (as chairperson) and at least four other members. The graduate committee members are selected based on the student's academic interests and area of research. At least one of the committee members is from the student's research area at one of the other UA campuses, and another is from a department other than the home department on the home campus. The graduate committee is charged with supervision and approval of the student's research and course of study toward the completion of all requirements leading to the degree.

Campus Materials Science Program Committee

This committee administers the program on each campus. Coordination encompasses some functions that are usually handled by a single-discipline department. The Campus Materials Science Program Committee is chaired by the campus program coordinator, who acts as director or chairperson for the program.

Degree Requirements

Qualifying, Comprehensive, and Other Program Examinations

Program Examination I covers the program's core material. The core is divided into three topic areas:

1. structure and properties;
2. characterization and testing; and
3. thermodynamics and processing.

Program Examination I qualifies the student to enter the advanced program. It is administered simultaneously system-wide by the Tricampus Coordinating Committee, at pre-announced dates, at least once per year (sometimes once per semester). The individual campus program committees will solicit input from the faculty and assist in preparing and grading the system-wide examination. The student may choose to take two or all three parts of Program Examination I at a sitting (unless only one part remains to be taken). It is expected that a student must make at least one attempt to pass the exam during the first two years of study. All parts of the examination must be completed within a total of three years, or by the fourth administration of the exam if this occurs later than three years after admission. Failure to pass all parts of the examination after this time disqualifies a student from the PhD program.

Program Examination II includes a comprehensive examination covering material in the student's specialization, as well as a dissertation proposal defense. This examination is normally taken near the end of formal coursework and is prepared, administered, and graded by the student's graduate supervisory committee. The last exam is an oral exam, the dissertation defense, which also is administered by the graduate supervisory committee.

A Student Handbook describing the details of Program Examinations and other aspects of the Program is on the Program's UA Campus website.

Candidacy and Dissertation Requirements

Admission to candidacy for the doctoral degree is contingent upon the successful completion of Program Examinations I and II (which includes the successful presentation of a dissertation research proposal.) Normally, a student is considered eligible to take Program Examination II when all of the required coursework has been completed. A department-approved Admission to Candidacy for the Doctoral Degree is submitted to the Graduate School as soon as possible after passing the program exams. See the Degree Requirements section of this

catalog for details on plan of study, admission to candidacy, and all other degree requirements. After being admitted to candidacy, the student must complete the remaining requirements for the degree, the main requirement being the doctoral research and dissertation. A minimum of 48 credit hours of graduate coursework and 24 hours of dissertation research are required. These courses may be in any department, but the course program must be worked out in consultation with the advisor and approved by the dissertation committee. A maximum of 24 of the 48 coursework hours may be transferred from another institution, subject to approval. The Request for Transfer of Graduate Credit is on the Graduate School's website. Credits in materials-related courses earned toward a master's degree at The University of Alabama may be applied to the doctoral degree.

Residency Requirement

The minimum period in which the doctoral degree can be earned is three full academic years of graduate study. The student must spend the final or penultimate academic year in continuous residence as a full-time graduate student at one of the campuses.

Time Limits

All requirements for the doctoral degree must be completed within a period of seven years of the date of admission.

For additional residence, time limits and degree requirements information, see the Degree Requirements section of this catalog.