Graduate Interdisciplinary Programs

Although most graduate programs are offered by academic units, diverse interdisciplinary programs cross academic disciplines. Many majors are in fields that are still emerging as recognized academic disciplines and, therefore, do not customarily form the academic basis for departments. Other fields of study are inherently interdisciplinary and do not fit well with conventional disciplines around which departments are formed. Curricula reflect intrinsically broad disciplinary affinities, and faculty are drawn from more than one academic unit.

Examples of interdisciplinary programs include

1. Atmospheric Science (certificate);
2. Creative Writing (MFA);
3. Exercise Science (PhD);
4. Geographic Information Science (certificate);
5. Gerontology (certificate);
6. Materials Science (MS);
7. Science and Engineering of Materials (PhD);
8. Statistics (MS and certificate); and
9. Transportation Systems (certificate).

Each of these programs uses resources and faculty from several disciplines. The programs promote cooperative research and instruction among faculty who share common interests but are housed in different academic units and allow students to pursue degrees that are intellectually coherent but bring together diverse strengths of ASU.

Creative Writing—MFA

The interdisciplinary M.F.A. degree in Creative Writing (with options in fiction, nonfiction, playwriting, poetry, and screenwriting) is administered by the Creative Writing Committee. This studio/academic program involves the research, creative activity, and teaching interests of faculty within the Departments of English and Theatre. This program provides students with the opportunity to tailor a course of study to fit individual needs, talents, and goals. Students work under the direction of faculty who are practicing, published writers. For more information, see the *Graduate Catalog*.

Exercise Science—PhD

The interdisciplinary Ph.D. degree in Exercise Science is administered by the Committee on Exercise Science. This individualized interdisciplinary degree integrates graduate courses from a variety of academic units to provide a sound foundation for research leading to a dissertation with concentrations in biomechanics, motor behavior/sport psychology, or physiology of exercise. For more information, see the *Graduate Catalog*.

Science and Engineering of Materials—PhD

The interdisciplinary Ph.D. degree in Science and Engineering of Materials is administered by the Committee on the Science and Engineering of Materials. Areas of concentration are available in high-resolution nanostructure analysis and solid-state device materials design. Emphasis is placed on the applications of chemical thermodynamics, the mechanics of solids, quantum mechanics and transport theory for investigation of the relationships between the microstructure and properties of solids, and the dependence of microstructures on processing. For more information, see the *Graduate Catalog*.

SCIENCE AND ENGINEERING OF MATERIALS (SEM)

Graduate-Level Courses. For information about courses numbered from 500 to 799, see the *Graduate Catalog,* or access www.asu.edu/aad/catalogs on the Web. In some situations, undergraduate students may be eligible to take these courses; for more information, see "Graduate-Level Courses," page 62.

Statistics—MS

The interdisciplinary M.S. degree in Statistics is administered by the Committee on Statistics. The program involves faculty and resources from the School of Accountancy and Information Management and the Department of Mathematics and Statistics. Areas of emphasis include applied statistics, mathematical statistics, statistical computing, statistical modeling, and statistical sampling and survey research. For more information, see the *Graduate Catalog*.

CERTIFICATE PROGRAMS

A number of certificate programs are offered by various academic units or programs on campus (see the "ASU Graduate Certificates" table, page 122).

Geographic Information Science

The interdisciplinary certificate program in Geographic Information Science (GIS) is administered by an executive committee. The objective of this program is to enable existing ASU graduate students and GIS professionals with advanced degrees to learn how to apply GIS concepts and technology for the purposes of spatial analysis. For more information, see the *Graduate Catalog*.

Transportation Systems

The interdisciplinary Certificate in Transportation Systems program is administered by the Committee on Transportation Systems. The objective of this program is to enable existing ASU graduate students and transportation professionals with advanced degrees to examine transportation-related issues from a variety of perspectives and in the context of different travel modes. For more information, see the *Graduate Catalog*.

TRANSPORTATION SYSTEMS CERTIFICATE (TRC)

Graduate-Level Courses. For information about courses numbered from 500 to 799, see the *Graduate Catalog,* or access www.asu.edu/aad/catalogs on the Web. In some situations, undergraduate students may be eligible to take these courses; for more information, see "Graduate-Level Courses," page 62.