

# College of Agriculture, Nursing, Science and Engineering

**Dr. James R. Clark**, dean

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Graduate programs within the disciplines of agriculture, biology, chemistry, engineering technology, environmental science, mathematics and nursing offer students an opportunity to develop in-depth knowledge of a particular academic area, each of which

emphasizes obtainment of research skills appropriate to the discipline. Most graduate faculty are actively involved in research and publication, thus, ample opportunities are available for graduate students to pursue the research necessary for writing a thesis. Most of the graduate programs can be structured to meet individual needs within broad degree requirements. Library holdings and facilities, when coupled with the capacity for rapid interchange of materials from other area libraries, provide excellent support of student and faculty research programs.

## Division of Agriculture

**Dr. Donald R. Topliff**, division head

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Full Graduate Faculty: Almas, Baker, Brown, Chirase, Clark, Colette, Kieth, Lawrence, Loneragan, Parker, Pendleton, Pipkin, Robinson, Schuster, Stewart, Thomason, Topliff, Williams.

The Division of Agriculture provides students the opportunity for personal development and preparation for careers in agriculture, academia and related industries. One out of five jobs in the United States is in the agricultural sector and involves the production, processing, distribution, or consumption of feed grains, food and fiber. Both master of science (M.S.) and doctor of philosophy (Ph.D.) degrees are offered. Students seeking a master's degree may choose from either a thesis or non-thesis option with a major in agriculture, agricultural business and economics, animal science, or plant, soil and environmental science. Students wishing to pursue the Ph.D. degree will undergo a rigorous course of multi-disciplinary study, research and leadership training combining all three emphasis areas in the division.

In addition to classrooms and laboratories, the Division of Agriculture utilizes the 2,500-acre Nance Ranch, Research Feedyard, Feedmill, Horse Center, federally inspected Meats Laboratory and Greenhouse Complex to provide research opportunities and "hands on" experience for students. Further, the relationship with other agricultural research entities in the area provides collaborative opportunities to be involved in cutting-edge research on the challenges and opportunities facing the dynamic agricultural industry.

| Discipline                                  | Course Prefix |
|---|---------------|
| Agriculture Business and Economics .....    | AGBE          |
| Agriculture .....                           | AGRI          |
| Animal Science .....                        | ANSC          |
| Plant, Soil and Environmental Science ..... | PSES          |

NOTE: See the "Academic Courses and Abbreviations" and "Course Descriptions" sections of this catalog for a complete list of courses offered by the University.

## Doctor of Philosophy (Ph.D.) Degree

### Major in Agriculture (Major Code: 7500)

All students must be formally admitted to the program. Admission to the program is highly selective on a competitive basis and includes an application packet and personal interview (see graduate school admission policies for details). The Ph.D. program requires 64 semester credit hours beyond the master's degree with the following requirements.

A core of 28 semester credit hours, including 15 semester credit hours of formal core courses including:

- AGRI 7375—Systems Agriculture I
- AGRI 8303—Systems Agriculture II
- AGRI 7376—Biotechnology in Agriculture
- AGRI 8302—Agricultural Perspectives on Environmental Risk
- AGRI 8301—Agricultural Statistics
- AGRI 8000—12 semester credit hours of dissertation
- AGRI 8001—One semester credit hour doctoral seminar.

# Division of Agriculture

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An additional 36 semester credit hours of prescribed electives is required including:

- At least two courses in each of the three disciplines in the Division of Agriculture (AGBE, ANSC, PSES) with at least one course in each area at the 8000 level.
- Up to six additional courses, including research, chosen with assistance of the student's advisory committee.

Additionally, students will complete a common written assessment examination before completion of their first semester in the program. The purpose of the examination is to assist the student and the committee in determining the student's strengths and weaknesses and to then develop a plan of study best suited to reaching the educational objectives of the program. The examination will consist of a mandatory written portion, and the committee may choose to administer an oral examination should such an exam be helpful in developing the plan of study.

The student's advisory committee will also administer a qualifying examination for advancement to candidacy after completion of at least 34 semester credit hours of course work listed on the degree plan exclusive of all leveling courses, research and dissertation, and at least four months prior to the student's graduation. The examination will consist of a set of common written questions over the core courses, developed by faculty from each of the three discipline areas and questions developed by the student's committee. The committee will also administer an oral examination after completion of the written portion of the examination. A majority vote of the members of the advisory committee is required for advancement to candidacy by the student. Should a student fail the qualifying examination, a period of at least four months must elapse before the exam is administered a second time. Should the student fail to pass the examination the second time, the student will be automatically dismissed from the program.

After advancement to candidacy, completion of a substantial multi-disciplinary research project and writing of a dissertation of appropriate length, a final defense of the dissertation and final examination of the candidate will be conducted by the student's committee. Should the student fail the final examination, the advisory committee shall outline the deficiencies to be corrected for the student to re-defend the dissertation. A minimum of four months must elapse before a second defense may be attempted. Should the student fail to pass the second time, the student will be automatically dismissed from the program.

Work completed in the doctoral program of another recognized graduate school will be considered on recommendation of the departments concerned, but no assurance can be given that such work will reduce the course or residence requirements here. In no case can transferred credit reduce the minimum residency requirement.

## Master of Science (M.S.) Degree

### Majors in Agriculture

Students seeking the M.S. degree in agriculture will select one of the following areas of concentration:

- Agricultural Business and Economics (Major Code: 5522)
- Agriculture (Major Code: 5513)
- Animal Science (Major Code: 5523)
- Plant, Soil and Environmental Science (Major Code: 5524)

### Thesis Option (30 credit hours)

- At least 18 hours credit from 6000-level and above courses.
- At least 18 hours credit in courses offered in the Division of Agriculture.
- At least one hour credit in graduate seminar (up to three hours credit can be used toward degree requirements).
- AGRI 6316, and 7318 or other courses with approval.
- Six hours credit of thesis (AGRI 6301 and 6302).
- No more than four hours credit from individual study courses.
- Successful completion of thesis and comprehensive exam.

### Non-Thesis Option (36 credit hours)

- At least 18 hours credit from 6000-level and above courses.
- At least 18 hours credit in courses offered in the Division of Agriculture.
- One hour credit in graduate seminar.
- AGRI 6316 or other courses with approval.
- Six hours credit in a supplementary area. (Not from courses in agricultural business and economics, animal science, or plant, soil and environmental science.
- No more than six hours credit from individual study courses.
- Successful completion of comprehensive exam.