

School of Agriculture
College of Agriculture & Human Ecology
B. S. in Agriculture Learning and Program Outcomes

Learning Outcomes

Learning Outcome I:

Improve the quality of instruction in the School of Agriculture so that students receiving the baccalaureate degree in Agriculture will be prepared for entry and advancement in agricultural careers.

Action Plan:

1) Regularly evaluate and revise the curriculum to meet the changing needs of the agricultural industry. 2) Enhance course offerings by adding short courses to the needs not addressed in the present curriculum. 3) Enhance opportunities for internships, field experiences, practical farm laboratory experiences, and cooperative arrangements for practical experiences. 4) Encourage utilization of the Tech and Hyder Farms, Hyder-Burks Pavilion, internet and library resources, and laboratories to gain meaningful learning experiences. 5) Provide a broad range of extracurricular activities (such as judging teams, club activities, skills contests, and leadership activities) to build leadership, social abilities, and confidence. 6) Seek informal input from potential employers of agriculture students on the effectiveness of the present curricula.

Method of Assessment:

1) A nationalized Agricultural Comprehensive examination (ACAT) will be given to graduating seniors. 2) Follow-Up Study of Alumni of the School of Agriculture is conducted every odd-numbered year and provides a survey of alumni who graduated 1,3,5,10,15,20, and 25 years ago. Alumni evaluate course work in each area of concentration; non-agricultural course requirements; and extracurricular activities for preparing them for professional responsibilities required by respective careers. 3) The director of the School of Agriculture conducts exit interviews of seniors at the end of the semester in which they graduate. Students are asked to comment on the effectiveness, strengths and weaknesses of the faculty and the agricultural program in assisting them to reach academic, personal, and professional goals. 4) Annual faculty reports will be examined to determine faculty activities and concordance with the degree program. These four methods are believed to be sufficient to evaluate this outcome and are the same methods used previously.

Assessment Results

1. Graduating senior performance on the ACAT exam in comparison to the national averages for 2004-05 showed scores in the 60 – 74 percentile range for the five disciplines tested. These results indicate that our seniors are performing

well above national averages. Scores in soil science and agricultural mechanization were higher than those in other disciplines.

2. Exit interviews with graduating seniors in 2003-04 indicated general satisfaction with the curriculum but some expressions of a need for more exposure to sustainability concepts and hands-on approaches to labs. They also indicated an interest in more internships and a senior problems type course.

Assessment Uses

1. AGRN 2020 has been changed to AGRN 3020 and revised to incorporate sustainability concepts and to make it more attractive for use as an upper division agricultural elective for our students. It is hoped this will result in more students taking an upper division agronomic crops course contributing to better preparation in plant science.

2. Annual reports by faculty members for 2004-05 indicate that in addition to their lecture/lab courses, they taught 26 special topics, senior problem, and internship courses. Faculty members developed and taught 3 web-based courses and 4 web-supported courses during the year. The format and instructional material for one team-taught, graduate level course was revised this year.

3. Curricula for the School of Agriculture will be reviewed in 2005-06 to consider revisions to encourage internships and senior problems.

4. Students are being advised by faculty advisors to consider internships during the summer.

Learning Outcome II

Interested students will be prepared for entry and advancement in graduate/professional programs.

Action Plan:

1) Continue to increase the utilization of the computer facility for the School of Agriculture by incorporation of these resources into present courses. 2) Continue to stress critical thinking skills in existing courses.

Method of Assessment:

Results from the Alumni Follow-Up Study will be used to determine alumni satisfaction with their preparation for graduate study, professional advancement, and employment. Statistics will be monitored to determine the percentage of graduates entering professional & graduate training programs.

Assessment Results:

1. Seven of thirty-nine students (17.9%) graduating in 2003-04 are currently in graduate programs or have recently received advanced degrees.
2. Eight of the fifty-one students taking the ACAT exam in 2004-05 indicated they plan to continue their education beyond the BS degree.

Assessment Uses:

1. We will continue to encourage enrollment in graduate and professional programs for students who express an interest in such programs.
2. Students who express an interest in such programs will be advised to take courses that prepare them for entry and success in the programs.

Learning Outcome III:

Students will have received experiences that enhance student leadership and social development as they develop local, state, national, and international involvement.

Action Plan:

Recommended actions for the future follow: 1) Emphasize the importance of School of Agriculture clubs and organizations during new student orientation and registration. Invite current students to talk with these new students about the leadership benefits they have received by participating in clubs and organizations. 2) Encourage more students to apply for the College of Agriculture and Human Ecology Ambassadors program. Current ambassadors are encouraged to meet with student groups to discuss the benefits of this program. 3) Encourage clubs and organizations to become more involved in community projects and other activities to help them develop local, state, national and international commitments. 4) Emphasize the success of agricultural graduates by conducting follow-up studies and by including highlights of graduates in the College "Great Things Are Happening" newsletter, and in the "Aggie Contact". 5) Continue periodic curricular reviews and revisions of the agricultural major and areas of concentration. 6) Broaden the opportunities for internships, field experiences, and cooperative arrangements for practical experiences that will enhance leadership development.

Method of Assessment:

Two methods are being used to assess this goal. These are: Exit Interviews with Graduating Seniors, and the Follow-Up Study of Alumni of the School of Agriculture. These methods appear to be appropriate. Exit interviews with graduating seniors were initiated during the 1990-91 academic year and have been conducted each semester since that time. The follow-up study of alumni is conducted every other year. The School of Agriculture will continue to provide academic programs that will address important issues and problems related to state, national, and international communities. The school

will continue to offer many opportunities for student leadership and social development including a broad range of extracurricular activities to allow applications of knowledge and concepts acquired in the classroom.

Assessment Results:

1. Students responded on the senior exit interview to indicate that generally they feel there are ample opportunities to develop leadership and social skills in the School of Agriculture.
2. Student responses suggest the greatest opportunities are provided by student clubs, group activities in courses, the Ag. Communications course, the Ag-Human Ecology Ambassadors, and student competitive teams.
3. Student responses suggest that the biggest limitations for participation in clubs and other events that contribute to leadership and social development include reluctance by freshmen to get involved, employment schedules of working students, commuting, and insufficient promotion of club activities.

Assessment Uses:

1. The schedule of club meeting dates is currently being posted on the bulletin board for students in the School of Agriculture.
2. An effort will be made to promote more club meetings on a college e-mail newsletter for new students that was started during the past year by the college dean's office.
3. Two social events will be held during the first few weeks of the fall semester to encourage freshmen to meet upperclassmen and to join clubs.

Learning Outcome IV:

Students will have received experiences beyond the classroom in conducting high quality scholarly activity and public service activities designed to enhance the food, agricultural and natural resource system.

Action Plan:

Proposed actions to achieve this outcome during 2004-2005 are: 1) Continue to encourage student participation in public service projects such as Ag-In-The-Classroom, FFA regional and state Career Development Events, or others. 2) Continue to encourage activities to enhance agriculture and address industry-related problems by offering AGR 4920 Senior Problems. 3) Continue to improve and encourage internships and work-experience-related courses in all sectors of agriculture.

Method of Assessment:

Evaluation of this outcome will continue to be determined from: 1) Review of responses from Interviews with Graduating Seniors. 2) Information from the Alumni Follow-Up Study, when available. 3) Review of Faculty Activity Reports for involvement with student club service projects and student competitions. 4) Review of faculty supervision of AGR 2910-2920 Work Experience, AGR 2940-2950 Internship, AGR 3940-3950-3960 Advanced Internship.

Assessment Results:

1. Several students indicated that they feel the Ag-In-The-Classroom program is a very good public service program.
2. They also feel some faculty members and some student clubs encouraged public service and scholarly involvement.
3. Some students suggested that more encouragement should be given for senior research problems.
4. Some students suggested that more should be done to encourage freshmen to do internships.

Assessment Uses:

1. Several faculty members have begun posting schedules for involvement opportunities and giving bonus points to students who participate in Ag-In-The-Classroom program.
2. The curriculum will be reviewed during the coming year to consider improving the incentives for students to do internships and senior research problems.

Program Outcomes**Program Outcomes I:**

Increase undergraduate student enrollment to 250 students and new student enrollment to 73 students by 2005.

Action Plan:

Encourage campus visits by prospective students and high school groups, update recruitment brochures, emphasize recruitment of female and minority students to increase diversity, involve the College of Agriculture and Human Ecology Ambassadors in recruitment events, increase course access to part-time students, and review and revise articulation agreements to encourage transfers to the School of Agriculture.

Method of Assessment:

Enrollment trends will be checked annually through the “Summary of Majors” and appropriate enrollment reports made by the university. Student profiles will be examined to compare the makeup of our students.

Assessment Results:

Fall enrollment for 2004 in the School of Agriculture was 223 students including 40 first-time freshmen and 14 transfer students. This is a drop of 7 students since Fall 2003, a drop of 1 in first-time freshmen and a drop of 2 in transfer students. The decline in returning student numbers is believed to be largely due to high graduation rates under the new 120-credit curriculum.

Assessment Uses:

Increased emphasis will be placed on discussing the career options in Agriculture to prospective students. Attempts will be made to increase participation in events such as the Academic Quiz Bowl and other youth programs hosted by the School of Agriculture. A School display will be placed at appropriate events such as livestock shows and the Putnam County Fair.

Program Outcomes II:

Encourage external funding and increase interaction of faculty and students with the Water Resources Center and the Nursery Crops Research and Service Center.

Action Plan:

Encourage increasing the opportunities for cooperative research activities with the Water Resources Center and the Nursery Crops Research and Service Center through joint faculty projects and student employment in these centers. Encourage faculty to seek external funding where appropriate opportunities and sources are identified.

Method of Assessment:

Review the “Annual Reports” prepared by the School of Agriculture and the Water Resources Center to determine cooperative projects and grants received.

Assessment Results:

During 2004-05 faculty members from the School of Agriculture developed a total of ten grant proposals. Outside grants and contracts awarded or ongoing to School of Agriculture faculty members totaled over \$414,000.

Assessment Uses:

Grants and contracts awarded will be beneficial to the programs in the School of Agriculture. Faculty members will be encouraged to continue preparing grant proposals when appropriate opportunities are recognized.

Program Outcomes III:

Promote and enhance faculty and staff development to the extent resources permit.

Action Plan:

Provide opportunities for, and encourage faculty and professional staff to attend professional meetings, workshops, and other training events.

Method of Assessment:

Examine the annual report each year to determine participation in training events.

Assessment Results:

Annual activity reports showed that School of Agriculture faculty member attended or participated in a total of 25 professional meetings, held memberships in a total of 44 professional organizations and held 18 professional appointments or offices in 2004-05.

Assessment Uses:

Additional funds will be made available wherever possible to increase faculty participation in workshops and professional meetings.

Program Outcomes IV:

Improve the quality of Instruction in the School of Agriculture.

Action Plan:

Review and update the curricula in agriculture to assure that students can progress to meaningful careers in agriculture or in further graduate or professional training. Add or revise courses as needed and as resources permit. Encourage utilization of the Tech and Hyder Farms, Hyder-Burks Pavilion, internet and library resources, and laboratories to gain meaningful learning experiences. Encourage development of on-line resources to aid student learning. Provide extracurricular activities to aid in development of leadership and social abilities and confidence.

Method of Assessment:

Annual faculty reports, senior exit interviews and alumni surveys will be examined to determine faculty activities and student and alumni satisfaction with the degree program.

Assessment Results:

Faculty members in the School of Agriculture carry a heavy load of instruction and student advising. In addition to these responsibilities, four web-supported courses were taught and three web-based courses were developed and taught by faculty members in the School of Agriculture. Additionally, the course format and instructional approach were revised for a team-taught graduate level course.

Assessment Uses:

Plans are under development to increase the offering of on-line instruction to increase course availability. A quality enhancement plan is under development to improve student exposure to real-world problem solving in agricultural courses.

Program Outcomes V:

Strengthen scholarly and service activities as permitted by resources.

Action Plan:

Continue to provide research support and service support to the Middle Tennessee Nursery and Landscape Association and other agricultural organizations in areas related to faculty expertise, support and improve where possible the Ag-In-The-Classroom program for schools in the region, and provide the agricultural community with professional support consistent with faculty expertise and resources.

Method of Assessment:

Annually monitor the School of Agriculture's Annual Reports for indications of success in this area, renew and consult with the Nursery Crops Advisory Committee about needs and contributions, and review the Ag-In-The-Classroom event with Farm Bureau representatives.

Assessment Results:

A Horticulturist was hired to assist with the research and service support to the Nursery Crops industry. Three of the stations in the Ag-In-The-Classroom displays were modified during the past year to improve the exposure to participants. Several faculty members provided talks and supportive activities for agricultural interests in the community.

Assessment Uses:

It is anticipated that the Nursery Crops Advisory Committee will be revived during the coming year. That should provide additional input to strengthen the program in that area. Travel support will be provided where resources permit to encourage faculty members to be involved with the community, region and state.