July 9, 2001

MEMORANDUM

TO: Graduate Council

FROM: Joe T. Davis
Associate Dean for Instruction

The College of Agriculture has reviewed and recommends approval for the changes in the following programs. Also attached is the notification memo to the Deans, Department Chairs and Members of the University Senate for these changes.

**Plant and Soil Science Master’s Degree Program**
Add PPA 640 and PLS 671 to the disciplinary portion of the core curriculum.

**Agricultural Economics Master’s Degree Program**
Delete ECO 590 and STA 570 as required courses in Plan A.
Delete ECO 590, ECO 401 and STA 570 as required courses in Plan B.
Change distribution of course levels required to 9 hours of AEC at 600+ level; 12 hours at 600+ and 12 hours of AEC in Plan A only.

**Agricultural Economics Doctoral Degree Program**
Delete AEC 660 and AEC 661 from required courses.
Add AEC 661 as one of the options under the required distribution of courses within program.

JTD/tlk
REQUEST FOR CHANGE IN MASTERS DEGREE PROGRAM

Program: Plant and Soil Science

Department/Division: Agronomy, Horticulture

College: Agriculture

Degree Title (Old): Master of Science

CIP Code: 

Accrediting Agency (if applicable): 

<table>
<thead>
<tr>
<th>I. CHANGE(S) IN PROGRAM REQUIREMENTS</th>
<th>Current</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of transfer credits allowed (Graduate School limit: 9 hours or 25% of coursework)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residence requirement (if applicable)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language(s) and/or skill(s) required</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Termination criteria</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plan A requirements*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plan B requirements*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distribution of course levels required (At least one half must be at 600+ level &amp; two thirds must be in organized courses)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Required courses (if applicable)</td>
<td>See attached sheet</td>
<td>Add PPA640 and PLS671 to the disciplinary portion of the core curriculum.</td>
</tr>
<tr>
<td>Required distribution of courses within program (if applicable)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final examination requirements</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* If there is only one plan for the degree, plans involving a thesis (or the equivalent in studio work, etc.) should be discussed under Plan A and those not involving a thesis should be discussed under Plan B.

NOTE: To the extent that proposed changes in 5, 6 or 8 above involve the addition of courses in other programs, please submit correspondence from the other program(s) pertaining to the availability of such courses to your students.
REQUEST FOR CHANGE IN MASTERS DEGREE PROGRAM

II. RATIONALE FOR CHANGE(S)
If the rationale involves accreditation requirements, please include specific references to those requirements.

The Plant and Soil Science Masters Program includes students from several areas of specialization. These include Soil Science, Horticulture, Crop Science, and Plant Physiology. As it exists now, we feel that the program does not offer adequate opportunity for students to fill the requirements with courses of direct interest in their areas. We are proposing the addition of two courses, one to provide an additional course for students with a Soil Science emphasis, PLS671, Soil Chemistry, and an additional course commonly taken by students with a Horticulture emphasis, PPA640, Identification of Plant Diseases. Together, these two courses will improve the plant and Soil Science Masters Program for students in these areas by including more courses of critical interest to them. Although these courses were requested by Soil Science and Horticulture students, respectively, the material actually can also be used by students in the Crop Science and Plant Physiology areas. Both of these courses have broad application to Plant and Soil Sciences.

Signatures of Approval:

[Signatures]

Department Chair
Jill Smith

Dean of the College
Joe T. Davis

*Undergraduate Council

*University Studies

*Graduate Council

Academic Council for the Medical Center

Senate Council

Date of Notice to the Faculty
5/16/01

*If applicable, as provided by the Rules of the University Senate

Date of Notice to University Senate

ACTION OTHER THAN APPROVAL
Rev 11/98
Master of Science

Plant and Soil Science (Thesis Option, Plan A)

In addition to meeting all general requirements for Master’s degrees as identified in the Graduate School Bulletin the candidate must complete 24 semester credit hours of graduate course work with a standing of 3.0 or higher and write a thesis. One-half of the course work must be in the major area. At least 16 credit hours must be in regular courses. At least half the minimum required courses must be 600 or 700 level courses. The plan of course work in both the major area and in background courses in basis sciences must meet the approval of the Advisor. Before the final examination the thesis director (Advisor) and the DGS must indicate to the Graduate School that the thesis satisfies all requirements of the Graduate School and is complete in content and format with the exception of pagination, and that the student is ready for examination. Dot matrix copies of the thesis will not be accepted.

Seminars. Students are expected to attend all graduate seminars and all graduate enrichment seminars in the discipline. They should also attend other departments seminars related to their subject matter interests. Seminar presentation requirements will vary among the different discipline areas. As a minimum, all Plant and Soil Science M.S. students must enroll in the appropriate section of PLS772 during their last semester and present a one-hour exit seminar. Soil Science students are expected to present two seminars, the final seminar being an exit seminar. For Plant Physiology, all students will present one seminar each academic year. They should enroll for credit (PLS 773) at least one semester during the course of their study.

Plant and Soil Science (Non-thesis Option, Plan B)

A Plan B (non-thesis) option is offered by the Plant and Soil Science graduate program. Plan B is generally intended for students who already hold professional positions and have no intention of graduate study beyond the M.S. This option provides strong technical training but does not require an extended period of full-time, on-campus study (often, only one semester).

General Requirements:
- 30 credit hours of approved graduate courses.
- 15 of the 30 hours must be at the 600 or 700 level.
- 15 of the 30 hours must be regular U.K. courses (not research, special problems or credits transferred from other institutions).
- At least 4, but not more than 8, of the 30 hours must be PLS 799 Research in Plant and Soil Science. This course is intended for on-campus (either Lexington, Princeton, or Robinson Substation/Forest) independent research. It will consist of an experimental project involving design, execution, analysis, and a written report by the student.
- One semester of full-time residence (registration for 9 credit hours).
- Presentation of an exit seminar and, for Soil Science only, one earlier seminar presentation.

Provided that these requirements are satisfied, Plan B students may apply up to 12 hours of approved, post-baccalaureate (i.e., completed after undergraduate program and before graduate school enrollment) graduate course work from U.K. or other schools to the 30 hour
requirement. They also may take up to 8 hours of PLS/AGR/HOR 599 Special Problems. This course differs from 799 in that 599 may involve off-campus projects conducted under the supervision of any faculty member. This will still require a written report by the student.

Assistantship support is not available to Plan B students. To be admitted to Plan B, students should submit a list of courses to be taken and a brief plan for research credits. This must be approved by the DGS and the appropriate graduate program steering committee.

Course Work Requirements for the M.S. in Plant and Soil Science

All students will submit a course plan by the end of their first full semester after enrollment. This is to be developed in cooperation with the major professor and approved by an advisory committee consisting of at least three members of the Graduate Faculty. The requirements for the course plan include:

1) 24 hours of graduate level courses (plan B: 30), at least 1/2 of which is at the 600 level or above.

2) The core curriculum consists of disciplinary as well as basic science/research method courses. Plan A requires 12 hours of designated core coursework (plan B: 15), of which at least 3/4 shall be at the 600 level or above, distributed in the following manner:

Disciplinary courses (Plan A: 6-9 credits; Plan B: 9-12 credits)

- PLS 502 Ecology of Economic Plants (3)
- PLS 573 Soil Morphology and Classification (3)
- PLS 602 Principles of Yield Physiology (3)
- PLS 605 Physiological Mechanisms in Horticultural Plants (3)
- PLS 622 Physiology of Plants I (3)
- PLS 623 Physiology of Plants II (3)
- PLS 650 Soil-Plant Relationships (3)
- PLS 664 Plant Breeding I (3)
- PLS 772 Plant and Soil Science Seminar (1)

Basic Science/Research Methods (Plan A or B: 4-6 credits)

- STA 570 Basic Statistical Analysis (4)
  (STA 570 is required for both Plan A and B)
- STA 671/672 Regression/Correlation/Design (4)
- PPA/BCH 609 Plant Biochemistry (3)

3) At least 12 hours in the plan must be in PLS courses (15 hours for Plan B), which will support one of the areas of specialization, to be designated in the course plan: Crop Science, Horticultural Science, Plant Physiology, or Soil Science.
Area of Specialization

At least 12 credit hours of graduate courses (15 hours for Plan B) are required which support the designated area of specialization: Crop Science, Horticultural Science, Plant Physiology, or Soil Science. Consult the Director of Graduate Studies for a listing of appropriate courses.

PLS 520 Vegetable Crop Production (3)
PLS 525 Greenhouse Floral Crop Management (3)
PLS 582 Special Problems in Horticulture (1-4)
PLS 605 Physiology Mechanisms (3)
PLS 770 Horticulture Seminar (1)
PLS 790 Research in Horticulture (1-4)