

PROPOSAL TO THE SENATE COMMITTEE ON EDUCATIONAL POLICY

TITLE OF THE PROPOSAL:

Proposal for a Master of Science Degree with a Major in Agricultural Production and a Concentration in Professional Science Masters

SPONSOR:

Laurie Kramer, Ph.D.

Associate Dean and Professor

Academic Programs

College of Agricultural, Consumer & Environmental Sciences

University of Illinois at Urbana-Champaign

1301 W. Gregory Drive

Urbana, IL 61801

Phone: 217 333-3380

lfkramer@uiuc.edu

BRIEF DESCRIPTION:

The College of Agricultural, Consumer & Environmental Sciences (ACES) proposes the establishment of a **non-thesis Master of Science (M.S.) degree program with a new major in 'Agricultural Production' to be offered through Illinois' new Professional Science Masters (PSM) initiative.** This new M.S. program seeks to provide students with critical knowledge of the agricultural industry governing the production of food, feed, fiber and other goods by the systematic growing of animals, crops, and other life forms. Given the interdisciplinary nature of this objective, this new program is proposed to be **offered at the ACES college level** to facilitate the interaction of various essential disciplinary departments (Animal Sciences, Crop Sciences, Natural Resources and Environmental Sciences).

Key elements of the proposed curriculum (outlined in detail in **Appendix A**) are:

- 1) **Interdisciplinary Core** (4 hours)
 - required seminar series for all students in the program that provides interdisciplinary management, business and policy knowledge essential for understanding the agricultural industry
- 2) **Disciplinary Electives** (28 hours)
 - completion of coursework in one of three specialty areas (Food Animal Production, Crop Production, or Sustainable Production Systems), as selected by each individual student
- 3) **PSM Concentration Requirements** (10 hours)
 - required coursework for all students in the program that provides business fundamentals, as part of the proposed campus-wide PSM initiative (proposed PSM concentration proposal currently under review by required levels of

governance at *Illinois*, however key features of the PSM curriculum related to the proposed Agricultural Production major are summarized in **Appendix B**).

The College of ACES seeks to launch this new program as part of the *Illinois* PSM Initiative in Fall 2009. The Agricultural Production M.S. program has been designed as a revenue-generating, three-semester, non-thesis M.S. degree, wherein students will not be eligible for receipt of a Tuition and/or Fee Waiver. The proposed sequencing of courses is outlined in **Appendix C**. We expect this degree program to be particularly attractive to students who seek mid-level management positions within agricultural industry – a population who is not specifically served by our traditional thesis-based, discipline specific graduate programs. Student enrollment targets for this program are conservative with 5 students expected in Year 1, 8 students expected in Year 2 and 10 students expected in Year 3. Therefore, upon achieving full capacity, we anticipate 20 students (10 first year and 10 second year) enrolled in the program at any one time.

The newly established Office of Professional Science Masters (OPSM) in the Graduate College will be responsible for coordinating admissions and career services for PSM students; however, as with all graduate programs, the final admission decision will be made at the program level. Students will not be eligible to transfer graduate credit into this major, which will only be available in combination with the PSM Concentration to ensure the revenue-generating nature of this cohort program.

Student advising services will be provided in three ways. First, student advisors within the relevant ACES disciplines will be responsible for student advising relative to ‘interdisciplinary core’ and ‘disciplinary electives’. Secondly, the OPSM will advise students about issues relating to the ‘PSM concentration requirements’ including ensuring that adequate opportunities for the required internship exist. Finally, the Graduate College also provides career advising for students through its Career Services Office that assists students in finding full-time positions upon graduation.

Due to the centrally-administered nature of this program, an ‘**Agricultural Production M.S. Program Steering Committee**’ will be appointed by the ACES Associate Dean for Academic Programs who will:

- provide disciplinary expertise from the various disciplines relevant to agricultural production and be responsible for program evaluation and revision;
- synchronize and harmonize options offered by different departments in order to avoid duplication and ensure uniform program quality;
- evaluate the Interdisciplinary Core, Disciplinary Electives and program guidelines;
- supervise the student admission process;
- advise regarding proposed new and revised courses, including the impact of projected enrollment, and;
- advise regarding the approval of new specialty areas.

BRIEF JUSTIFICATION

The agricultural industry is estimated to employ 36% of the world’s workforce, accounts for 4% of the gross world product, and is responsible for the adequacy, safety and sustainability of the world’s food supply. Beyond the various scientific disciplines providing ever-changing technology to the rapidly evolving agricultural industry, governmental policy, international law, environmental

awareness and economic theory are among a host of external pressures that shape the agricultural industry. Practitioners who are well prepared for the complexity of this essential and dynamic industry are in high demand and we believe that the proposed M.S. Degree with a Major in Agricultural Production and Concentration in PSM is the most appropriate way to serve this need. Certainly, our existing M.S. research-based programs are of excellent quality and indeed, the most appropriate for those students seeking the doctorate, but unique strengths of the program proposed for those students seeking employment in the agricultural industry include the *PSM format* and the *interdisciplinary breadth* of the proposed program.

The proposed 'Agricultural Production' program leverages our rich heritage as a Land Grant university by meeting needs germane to the state and nation, while also responding to the call in our current campus Strategic Plan for the development of PSM programs in areas of pressing need. In collaboration with the Graduate College, a survey conducted in the Summer of 2007 found that '90% of potential students are highly interested' and '88% of potential corporate partners are interested' in working with students in a program such as the 'Agricultural Production' major proposed.

In summary, the proposed M.S. degree with a Major in Agricultural Production and a Concentration in PSM will be administered through the Office of Academic Programs in the College of ACES. Through the creation and successful implementation of this program, we seek to teach the next generation of scientists to manage agricultural production on a domestic and global scale. Demanding a premium in the workforce due to their interdisciplinary training, we envision the Agricultural Production PSM students will go on to manage production facilities, develop new processes and methodologies, and create novel policy and strategy for the agricultural industry by taking advantage of the business skills developed in this unique program.

BUDGETARY AND STAFF IMPLICATIONS

a. Additional staff and funding needed

There are no additional funding or staff resources required from the College of ACES to launch the M.S. degree with a Major in Agricultural Production and Concentration in PSM. All faculty and courses required of the 'Interdisciplinary Core' and 'Disciplinary Electives' exist as part of our active programs. The modest student numbers will not require additional advising personnel or course sections. Resources relating to the PSM Concentration are the responsibility of the Graduate College, as part of the *Illinois* PSM Initiative. As such, a full-time Director of PSM began employment to establish the Office of PSM in December 2007 and funding for the first 3 years of the PSM program has been successfully obtained from the Alfred P. Sloan Foundation.

b. Internal reallocations

We do not expect significant changes in the teaching loads in courses currently offered by the University. Within any one class the maximum number of students anticipated is 10, with only 5 students expected in the initial year.

c. Effect on course enrollments in other departments and explanations of discussions with representatives of these departments.

We do not expect there to be significant impact on existing courses in any department due to the creation of the 'Agricultural Production' M.S. program. Evidence of collaboration among these other units is provided in Appendix D.

d. Impact on library, computer use, laboratory use, equipment, etc.

Although each student and faculty impact the services provided by the library, the proposed program will rely on resources used in existing programs and therefore there is no need to expand the collections currently present within the library.

GUIDELINES FOR UNDERGRADUATE EDUCATION: Not applicable

EFFECTIVE DATE: Upon approval.

STATEMENT FOR PROGRAM OF STUDY CATALOG:

M.S. Degree with a Major in Agricultural Production and Concentration in Professional Science Masters

Contact: Laurie Kramer, Ph.D.

Associate Dean and Professor

Academic Programs, College of Agricultural, Consumer & Environmental Sciences

University of Illinois at Urbana-Champaign

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Graduate Degree Programs

The College of Agricultural, Consumer and Environmental Sciences (ACES) offers graduate work leading to the Master of Science degree with a Major in Agricultural Production and Concentration in Professional Science Masters (PSM). Fields of specialization within this interdisciplinary program include Food Animal Production, Crop Production, and Sustainable Production Systems. In addition to the rigorous scientific training in the area of agricultural production, the PSM portion of the program will provide students with the real-world skills that employers demand. The PSM concentration requirement includes courses focusing on professional skills (such as management, communication, leadership and ethics) as well as skills that bridge the gap between science in academia and in the job market (such as lab management and production strategy).

Admission

Candidates for admission to the M.S. and Ph.D. programs must have a bachelor's degree from an accredited institution equivalent to those from the University of Illinois at Urbana-Champaign. A grade point average of 3.0 or higher (A = 4.0) for the last 60 hours of undergraduate work and for any graduate study is required for admission. Graduate Record Examination (GRE) scores are required of all applicants and the minimum acceptable Test of English as a Foreign Language (TOEFL) score is 590 on the paper-based test or 243 on the computer-based test. Transfer credit may not be applied to this program due to the cohort nature of this program.

Degree Requirements – Master of Science

Students must complete a minimum of 42 hours of graduate credit (with a minimum of 12-hours at the 500-level), including:

- 1) 4 hours of Interdisciplinary Core Requirements;
- 2) 28 hours of Disciplinary Electives, and;
- 3) 10 hours of PSM Concentration Requirements.

Financial Aid

Financial aid in the form of fellowships, teaching and research assistantships, or tuition and fee waivers are not available for graduate students in this program.

CLEARANCES:

Robert A. Eard 1-22-08
Dean, College of ACES Date

Lucia Jappenda 1/28/08
Dean, Graduate College Date

Provost Date

Chair, Senate Committee on Educational Policy Date

Full proposal available
for review in the Senate
Office.