

Graduate Faculty Senate
GFS Meeting Minutes



August 25, 2020; 1:30-3:00 PM

<https://umsystem.zoom.us/j/92868757513>

Azlin Mustapha, Anita Cowan, Jeni Hart, Ashley Siebenaler, Sue Boren, Miriam Butler, Mick Calcutt, Athanasios (Sakis) Micheas, Chris Daniggelis, Gui DeSouza, Wilson Freyermuth, Keith Greenwood, Candace Kuby, Tony Lupo, Dana Martin, Rajiv Mohan, Stevie Neuman, Alan Parrish, Erin Robinson, Chad Rose, Julija Sukys, Corinne Valdivia, Christine VanPool, Jesse Wyatt, Gang Yao

1. Call to order

Call to order 1:31pm

2. Acceptance of the agenda

Sakis Micheas – motioned to accept agenda

Tony Lupo – seconded the motion

approved

3. Approval of minutes from April 28, 2020 meeting

Candace Kuby - Moved to approve minutes

Sakis Micheas – Seconded

approved

4. Introduction of new and old members of GFS

New members: Miriam Butler-Nursing, Sounak Chakraborty alternate for Fall Sakis Micheas-A&S, Chris Daniggelis-DGS representative, Stevie Neuman-Business Accountancy, Erin Robinson-HES, Corinne Valdivia-CAFNR

5. Make-up of Academic Affairs, Awards and Policy committees

AAC committee

Keith Greenwood-Chair, Sue Boren, Sounak Chakraborty, Chris Daniggelis, Wilson Freyermuth, Dana Martin, Stevie Neuman, Erin Robinson, Gary Yao

Awards Committee

Chad Rose-Chair, Mick Calcutt, Rajiv Mohan, Tony Lupo, Corinne Valdivia, Christine VanPool

Policy Committee

Alan Parrish-Chair, Miriam Butler, Candace Kuby, Julija Sukys

6. Committee Reports:

a. Academic Affairs – Prof. Keith Greenwood, Chair

i. Approval of any new course requests:

1. For review, go to <https://nextcatalog.missouri.edu/courseadmin/>
(after you log in, click on AAC-GFS Vote in the Quick Searches box on the far right)

Keith Greenwood- thank you to everyone who worked over the summer to keep up. 130 courses recommended for approval, 26 edits are included in total.

Vote for recommended approval – approved-unanimous

ii. New Programs and Program Changes:

1. Accelerated M.S. in Agric. & Appl. Economics (New)
Div. of Appl. Soc. Sciences, CAFNR; Prof. Michael Sykuta

Proposal presented by Michael Sykuta: Would like to adopt their current dual enrollment option to an accelerated program. Being able to change would streamline the process.

G. DeSouza- Are the total credits hours 162?

A: Total is actually 138, on form credits are double counted. 120 undergrad, 18 additional for accelerated master's program. Non-thesis research is included in the 18 hours.

A. Mustapha- are these courses currently being taught?

A: Yes

K. Greenwood- Does the accelerated program have both thesis and non-thesis options? Are students able to complete the thesis in time?

A: Yes, most are able to complete their thesis by end of 5th year. They usually start the summer before.

Keith Greenwood motioned for approval.

Candace Kuby seconded motion

Approved - unanimous

2. Graduate Certificate in Neural Engineering. – Signals, Systems & Machine Learning (New)
Dept. of Electrical Engineering. & Computer Sci., CoE; Profs. Satish Nair and Dominic Ho

(refer to proposal attached at end of minutes)

Proposal presented by Dominic Ho

Questions:

K. Greenwood-2.5 GPA required for admission, is this the same as other programs?

A: Currently we say 2.5, because it is also intended for students from other departments. Don't want to scare possible students away.

*Policy requires a 3.0. = They will revisit policy and make adjustments

S. Micheas-How close is this to the 9530 class already offered?

A: This certificate is mainly focusing on the Neural side of the education.

G. DeSouza-Are the mentioned courses part of the certificate?

A: Some, the machine learnings focus is different than this certificate.

A. Mustapha-Are you expecting to increase your grad student enrollment?

A: Increase and encourage from other dept.

B. Valdivia-The form included with the proposal is for undergrads.

A: Will update with correct form for Graduate students

Held over for corrections, will revisit at the September meeting.

3. Graduate Certificate in Admin. & Management of Family & Community Services (New)

Dept. of Human Dev. & Family Sci., HES; Prof. Ashlie Lester

Proposal presentation by Ashlie Lester.

Prepare students for management of human services programs. Grant management, writing, personnel management. Community assessment, design programs for community, evaluating efficiently. Courses already exist, just using 4 of the existing courses to create a certificate. Attractive to persons already in the field and current graduate students in multiple disciplines.

Questions?

C Valdivia-Please explain the Great plains idea collaborative?

A: Consortium of institutions taking turns in teaching classes. Faculty from multiple institutions share in instruction.

K. Greenwood-Is this stand alone or can it be added to a degree?

A: Proposed as a Stand alone, but it could be put with a program or stackable certificates. It is compatible, want to offer to other disciplines.

Do you have an anticipated number of students?

A: Not currently, however KState has 5 in the first year, hoping for growth.

Motioned for approval - Keith Greenwood

Rajiv Mohan seconded motion

Approved - unanimous

b. Awards – Prof. Chad Rose, chair

Committee encourages members to share the call for awards. Would like to see multiple nominations.

c. Policy subcommittee – Prof. Alan Parrish, chair

Nothing currently

7. Discussion on ITAP appeal process and GFS ad hoc committee – Prof Gui DeSouza

Adhoc committee of senate members, to review ITAP appeals.

Currently, Gui DeSouza, Tony Lupo, Chris VanPool have evaluated the 2 appeals sent in.

Appeals consisted of questions regarding the format of testing and the other was about the levels used.

The appeal process is available here: <https://gradschool.missouri.edu/itap-program/>

The form that must be completed by the department:

<https://gradschool.missouri.edu/wp-content/uploads/2020/07/ITAP-Appeals-Form.pdf>

Committee recommended they would like to come up with additional information in guidelines regarding the decisions of the appeals.

There was concern regarding the video's that were submitted. Submitted videos seemed scripted, rehearsed or staged. They would like to see "raw" footage, not edited, see how students work through a problem.

Everyone can send their comments or suggestions to Prof. DeSouza to compile for further discussions at the next meeting in September.

8. Report: Graduate School – Dean Jeni Hart

Current enrollment is 6123 – this includes, postdoc and dual enrollment students. Last year's enrollment was 5956. Census is the first of October and will have a better idea on the true numbers.

Dr. Hart was able to create an opportunity for Grads to be able to be paid 9 over 12 or 9 over 10. They now have a choice to choose the option that works best for them.

Grad website- There is a new section that has COVID-19 news with guidance for grad students specifically.

E-compliance needs to be completed by teaching and research students. Those students who are also employees will need to complete both the student training and the employee training.

Chancellor/provost changed drop date to September 8 to receive a full refund.

Doc statistics are available in a user-friendly format on website

As you are recruiting for AY2022, Be mindful of those students who will need to take longer to complete program due to the COVID and consider continuing their funding. There are a number of students have deferred and/or slowed down research and creative works.

Consider testing options for those students who may struggle with standardized tests.

Duolingo scores not currently being accepted to TA, will need to go through with MACC testing when they arrive.

9. Report: Liaison to Faculty Council – Prof. Tony Lupo

Faculty council last met in July, next meeting in September. Nothing new to report

10. Report: Graduate Professional Council – Mr. Jesse Wyatt, GPC Representative

General assembly will start on Tuesday.

GPC is rolling out a research award.

Travel awards are still available, will include online registration fees.

Moved everything online over the summer. If you know of any Graduate or Professional students that are having difficulty to have them contact GPC.

11. Resolutions

12. Adjournment

Adjourn 2:54pm

ACCELERATED GRADUATE PROGRAM PROPOSAL COVER SHEET

College or School: College of Agricultura, Food & Natural Resources

Department: Division of Applied Social Sciences

Program Title: Agricultural & Applied Economics

Degree: Master of Science

Options (emphasis areas): _____

Implementation date (Semester): Fall 2020 or Spring 2021

Expected Date of First Graduation: Spring 2022

Author of Proposal: Michael Sykuta

Name and Phone Number of Person to Contact for More Information:

Michael Sykuta, 573-822-1738, sykutam@missouri.edu

Individual(s) Responsible for Success of Program (e.g., chair, dean, director):

Joe Parcell, Division Director, DASS; Michael Sykuta, Program Director

SIGNATURE SHEET

Harvey S. James, Jr.

Director of Graduate Studies: [Harvey S. James, Jr. \(Jun 3, 2020 19:45 CDT\)](#) _____

Department Chair/Division Director: *Joseph Parcell* _____

Dean of School/College: *Bryan L. Santos* _____

Accelerated Graduate Program Proposal – BS in Agribusiness Management / MS in Agricultural & Applied Economics

Table of Contents

Executive Summary	3
Introduction	4
Business Case: Criteria and Justification	4
Program Characteristics	6
Appendix A – Current 5-year Program.....	11
Appendix B – Proposed Sample Study Plans	15

Executive Summary

This proposal would create an accelerated path for undergraduate students in the Agribusiness Management (ABM) degree program to complete the requirements for the Master of Science in Agricultural & Applied Economics (AAE).

The ABM/AAE programs already have outlined and implemented a 4+1 program, using dual enrollment rather than dual credit for undergraduate students that transferred a sufficient number of credits or have taken additional credits earlier in their academic program (see the program outline in the Appendix). The accelerated program with dual credit will further reduce barriers to students who may be interested in pursuing their Masters degree, but reluctant due to the expense of additional graduate credit hours and time required.

The proposed program takes advantage of existing cross-level required courses in the undergraduate major for the dual-credit portion (12 hours) of the program. These courses also constitute a significant portion of the core requirements in the MS degree. As a result, the remaining 18 hours are a mix of field electives, quantitative/research tools courses, and research hours. The MS program already allows students a range of choices for these elective courses to suit their academic and career interests, making the additional 18 hours readily accessible within the scope of existing courses students can choose from.

Because the proposed program draws upon existing, mostly required, cross-leveled undergraduate courses and requires no new courses to be created, the program can be supported within existing faculty resources and workload requirements. By increasing enrollment in existing graduate-level elective courses, the proposal strengthens the existing graduate program. While some students may receive assistantships and graduate tuition support from the program or from grant-supported projects for their graduate hours, it is expected that some students will be paying tuition, providing a net addition to tuition revenue and fees.

The proposed program will enhance the ability of the Division, the College and the campus to expand graduate student enrollment and improve students’ employment and career earning prospects. Moreover, by getting students more directly into the MS program, it may also increase demand for the PhD program.

1. Introduction

The Master of Science in Agricultural & Applied Economics (AAE) prepares students for careers in private industry, government agencies, and policy analysis, as well as for continued education in a doctoral program. The degree offers both non-thesis and thesis options, and different focus area tracks, to provide students the flexibility to tailor their degree to their career goals while providing a solid core of economic and applied analytic skills.

Students graduating in the past five years have continued on to PhD programs (e.g., MU, Colorado State, Aarhus Univ), education-related fields (e.g., Ohio State Extension, Agriculture Future of America), private industry (e.g., Dairy Farmers of America, Bovitrac International, Collaborative Capital Ltd), and government or policy positions (e.g., Missouri House Budget Office, USDA, FAPRI). Over the past decade (2010-20), the program has graduate 59 students. Of those, 51 completed the degree in two years or less. Of the eight that took longer, three had extended disruptions in their programs to pursue professional opportunities. Of the 69 students that started the program from 2008 to 2018 (allowing a customary two-year lag), 59 completed their degree, for a completion rate of 85.5%.

In 2017, the program began promoting a 5-year BS in ABM/MS in AAE by allowing students to dual-enroll in graduate and undergraduate courses in their last undergraduate semesters. Thus far, four students have taken advantage of that program, three of whom have graduated (the fourth is currently enrolled). Three other current MS students completed their ABM degree at Mizzou before starting the traditional MS program.

An accelerated Master's program will benefit the Division and students by allowing a more flexible and lower-cost path to pursuing the MS degree, which will lead to increased enrollment in the MS program. The existing 5-year program requires students to accelerate their undergraduate coursework to reach 120 hours in addition to the 12 hours of graduate work (at graduate tuition rates), which requires them to plan for graduate school sooner. The accelerated program will not only reduce cost, but make the transition into the MS program easier by allowing students to make the choice later in their undergraduate program. Based on our experience with the current 5-year program, the accelerated program will also be valuable in attracting and recruiting new first-time college students into the ABM major. This will benefit not only the Division, but the College and University as a whole.

The Division of Applied Social Sciences (DASS) houses both the ABM and AAE degree programs. Dr. Michael Sykuta, Associate Professor and Director of Undergraduate Studies in Agribusiness Management will be the person responsible for the success of this program. Dr. Joe Parcell, Director of the Division of Applied Social Sciences, and Dr. Harvey James, Jr., Director of Graduate Studies in Ag & Applied Economics, will share in that responsibility in terms of graduate funding resource allocations.

2. Business-Case: Criteria and Justification

2.A. Benefits for Students and for the Program

An accelerated Master's program will benefit the Division and students by allowing a more flexible and lower-cost path to pursuing the MS degree, which will lead to increased enrollment in the MS program. The existing 5-year program requires students to accelerate their undergraduate coursework to reach 120 hours in addition to the 12 hours of graduate work (at

graduate tuition rates), which requires them to plan for graduate school sooner. The accelerated program will not only reduce cost, but make the transition into the MS program easier by allowing students to make the choice later in their undergraduate program.

Based on our experience with the current 5-year program, the accelerated program will also be valuable in attracting and recruiting new first-time college students into the ABM major. This will benefit not only the Division, but the College and University as a whole. It is possible the program will also increase the number of undergraduate transfer students into the ABM program (from outside MU) to take advantage of the accelerated program.

2.B. Student Demand for Program

The existing MS program typically receives 12-18 applications per year and 6-9 students are admitted, frequently with Divisional or grant-based funding.

In 2016 the faculty adopted a 5-year ABM/AAE track that relies on dual-enrollment, rather than dual-credit. In 2017, one ABM student used that program to transition to the AAE-MS program; in 2018, two students took advantage of the program; and in 2019 one student took advantage of the program. However, the dual-enrollment program typically works best only for students that transfer in extra student credit hours or take extra summer or winter-break credits, allowing for the additional graduate-only hours during the final two semesters.

By allowing students to receive dual-credit and apply their undergraduate financial aid and scholarship to the first 12-15 graduate credits, we expect the level of interest to increase substantially. Moreover, the existing 5-year plan already draws interest from prospective undergraduate students considering the ABM program at MU. The proposed accelerated program will be even more appealing to those prospective undergraduate students and their parents, and will hopefully result in even larger numbers four to five years from now.

Table 1 below is completed based on the number of fall semester **graduate**-level enrollment, which will be in the second year of the accelerated program (e.g., Fall '21). The numbers represent **net new** enrollment in the MS program beyond current expectations.

Table 1. Student Enrollment Projections (anticipated total number of students enrolled in program during the fall semester of given year).

Year	1	2	3	4	5
MU Students Enrolled	2	3	4	4	6
Transfer Students Enrolled	NA	NA	NA	NA	NA

2.C. Departmental Capacity

All of the program core courses and anticipated electives have sufficient capacity to accommodate the expected additional enrollment. The identified first-year courses are all cross-level courses for existing requirements and program electives within the ABM major, so students taking those at the graduate rather than undergraduate level will have only a minor impact on instructors and no effect on enrollment. Second year electives are existing courses with capacity to accommodate the expected enrollment. It is expected that most accelerated students will choose the Non-Thesis option, which requires fewer advising resources than the Thesis option,

2.C.1. Impact on Resources

Because the proposed program involves no new courses or new sections of existing courses, there are no anticipated needs for additional faculty resources. The largest faculty burden will

likely be associated with students that choose the MS thesis option. As noted above, we expect most students will be interested in the non-thesis option with non-academic career goals. Regardless, we believe there are sufficient faculty resources at this point for the anticipated increase in enrollment.

Graduate students in the AAE program are currently provided office space on the third floor of Mumford Hall. At this point, there is no anticipated shortage of desk space for the expected additional enrollment. If space does become a constraint, we have plans for allocating space among graduate students prioritized on the nature of their degree program, status, and need.

2.C.2. Revenue

New revenues will primarily involve the additional graduate tuition and fees of 18 credit hours per student. To the extent the accelerated program also increases undergraduate recruitment and enrollment, the Division may realize a substantial increase in undergraduate student credit hours for courses within the ABM major.

2.C.3. Net Revenue

Because the ABM and AAE programs are both housed in DASS, the net revenue effects are minimal. Lost revenue from the 4th year undergraduate courses will be replaced by tuition for the graduate-level courses. In the short-term, there may be a small loss of undergraduate supplemental fees until those are completely eliminated in the new revenue model.

However, if the opportunity of the program attracts even one new undergraduate student for every three students that participate in the program, the increase in undergraduate revenues would exceed the opportunity cost of the participating students. And realistically, the ratio is more likely to be reversed, with more students joining the undergraduate program with the prospect of the accelerated program than students actually participating in it.

2.D. Business and Marketing Plan: Recruiting and Retaining Students

The accelerated program will be marketed primarily to ABM majors through our existing classes and advising channels, and possibly within CAFNR through its CAFNR Info email channel. We will also promote the opportunity on the DASS website and include it in our undergraduate recruitment materials through CAFNR. The target includes existing ABM majors, prospective first-time college students, and prospective undergraduate transfer students (from outside MU). We do not intend to target aggressively students in other undergraduate programs.

3. Program Characteristics

3.A. Program Outcomes

Upon completion of the program, students should have a strong understanding of microeconomic theory and concepts, as well as the ability to apply those concepts to business, policy and regulatory decision-making. Students will develop and demonstrate an ability to apply quantitative and/or qualitative data analytic tools relevant to their specific academic and career interests. Students will be able to frame economically sound inferences regarding market, firm, and individual behavior, and to evaluate effectively the likely consequences and implications of business and policy decision-making.

3.B. Program Structure

The MS program requires a minimum of 30 hours selected from courses in one of three focus areas

(public policy analysis; environmental & development economics; managerial, behavioral & organizational economics). Specific course requirements are determined by each focus area. The ABM undergraduate degree also has two tracks: management & entrepreneurship and public policy, each with their own core requirements. The proposed accelerated program builds from cross-leveled courses in the respective undergraduate tracks that overlap or complement the MS requirements in the different focus areas.

The proposed program allows students to receive dual-credit for up to 15 hours in cross-leveled versions of courses in the undergraduate major during their first (provisional) year. Under certain circumstances, and depending on the student's undergraduate degree plan, the student may request an 8000-level course to be counted during their provisional year as an elective toward their major requirements. Upon completion of the Bachelor's degree the student will take (at least) an additional 18 hours, with at least 15 total graduate hours at the 8000-level or higher, during the second year to complete the MS. *See the Appendix for specific program plans for the different focus areas/tracks.*

Students completing their Bachelor's degree will become eligible for consideration for graduate teaching assistantships (GTAs) and/or graduate research assistantships (GRAs), including accompanying tuition waivers. Students will be evaluated based on their academic performance during the provisional year; the needs of the undergraduate and graduate programs, respectively; and the availability of funding. Students may also be hired during their provisional year to work as hourly research assistants by mentoring faculty.

There are no accreditation requirements for the MS degree.

PROGRAM STRUCTURE

1. Total credits required for graduation (must be at least 138 total credit hours):
 - a. Total undergraduate credits: 120
 - b. Total of dual credits*: 12
 - c. Total graduate credits: 30

2. Residency requirements, if any:

3. Core courses required to complete the MA/MS (at least 15 hours must be 8,000 level and above) – See Appendix for focus area-specific study plans.

Year 1 of Master's (as Provisional Graduate Student)

Course number	Course title			Credit hours
AAE 7240/ECON 7351	Intermediate Microeconomic Theory			3
<i>Choose three of the following (by Management & Entrepreneurship and Public Policy UG track):</i>				
AAE 7301	AAE 7241	Behavioral & Experimental Econ	Agricultural Prices	9
AAE 7971	AAE 7400	Agribusiness Mgmt Strategy	Environmental Law, Policy & Justice	
AAE 7972	ECON 7353	Agri-food Cooperative Mgmt	Intermediate Macroeconomics	
AAE 7983	AAE 7990	Strategic Entrepreneurship	Economic Analysis of Policy & Regulation	
Total hours				12

Summer Semester

Course number	Course title	Credit hours
Total hours		

Year 2 of Master's (As Graduate Student [minimum of 18 credits])

Course number	Course title	Credit hours
7000+-level	Quantitative analysis/research tools elective	3
8000+-level	Quantitative analysis/research tells elective	3
8000+-level	Emphasis area elective	3
8000+-level	Emphasis area elective	3
8000+-level (or AAE8090)	Emphasis area/research method elective (or MS Thesis Research)	3
AAE 8450 (or AAE8090)	Non-thesis Research (or MS Thesis Research)	3
Total hours		18

4. Requirement for thesis, internship or other capstone experience:

Students may elect either a thesis or non-thesis option. Thesis students can take up to 6 hours of research credit. Non-thesis students can take up to 3 hours of non-thesis research credit and 3 hours of additional coursework.

5. Any additional features of the program:

The MS program has three emphasis options, or tracks, that vary slightly in their requirements. The above structure is a general representation but may be adapted slightly based on the student's academic and career interests. Similarly, the first-year courses are based on the two tracks in the Agribusiness Management major, reflecting cross-level courses that will satisfy undergraduate degree requirements.

3.C. Program Goals and Assessment

The goal of the accelerated program is to increase matriculation of ABM undergraduates into the AAE-MS program. The ABM program currently graduates approximately 50 students per year, of which one or two currently continue directly into the MS program. Our near-term goal is to increase matriculation to 12-15 percent of undergraduate students (an increase of approximately 5 net new students to the MS program).

As the program grows, there is the potential that a larger critical mass will begin to attract more students from other universities into the traditional MS program. We also hope that increased matriculation to the MS may also lead to increased demand for the AAE-PhD program. However, these are secondary goals.

Our goal is for 95% retention and graduation rates, which is higher than our graduation rate over the past decade (85.5%). Of the small number of students that have taken advantage of our current 5-year dual-enrollment program, 100% completed the MS degree within one academic year of their Bachelor's degree.

Learning outcomes will be assessed by the combination of individual course grades and the technical research paper review committee (non-thesis option) or thesis examination committee, as may be appropriate.

In addition to the above learning outcomes, enrollment targets, and graduation rates, we will also evaluate success by having published white papers, peer-reviewed journal articles, and extension reports resulting from students' research projects; and by applications and awards for external grants that graduate students help generate.

3.D. Student Requirements and Admissions

To be eligible for the accelerate MS program, students must have completed at least 90 credit hours with a minimum cumulative GPA of 3.0, and a minimum GPA of 3.0 in ABM-designated courses (or their equivalents). on the student's undergraduate degree plan. Students must submit the degree program application form with at least two supporting letters from ABM/AAE faculty members recommending admission.

3.E. Faculty and Administration

Dr. Michael Sykuta, Associate Professor and Director of Undergraduate Studies in Agribusiness Management will be the person responsible for the success of this program. Dr. Joe Parcell, Director of the Division of Applied Social Sciences, and Dr. Harvey James, Jr., Director of Graduate Studies in Ag & Applied Economics, will share in that responsibility in terms of graduate funding resource allocations. This program will be subsumed within Dr. Sykuta's current time allocation of 20% for service to the Division, College and campus.

Instructional needs will be met within the current teaching workloads of ABM/AAE faculty. All anticipated courses are already being offered and have capacity for the additional enrollment. Advising will be allocated among faculty based on students' and faculty members' mutual interests and availability. ABM/AAE currently includes approximately 20 Graduate Faculty members.

3.F. Alumni and Employer Survey

Alumni feedback will be captured within existing DASS and AAE alumni surveys, with questions added asking whether the individual participated in the accelerated program and whether they perceived themselves to be as prepared for their next moves as they perceived their peers to be.

We anticipate some students will continue on into PhD programs, whether at MU (in AAE or another program) or elsewhere. As students take positions at other organizations, whether private or public sector, we will develop a list of employers and contact information to conduct surveys as part of the DASS 5-year program review and assessment process.

Appendix A

Existing 5-Year BS-MS dual enrollment program description

5-Year Masters in *Agricultural & Applied Economics*?? with a BS in Agribusiness Management

Exceptional students seeking an agribusiness or policy-related career have the opportunity to earn their BS in Agribusiness Management and their MS in Agricultural and Applied Economics in just five years.

Students may enroll in up to six (6) hours of graduate-level courses during each of their last two undergraduate semesters, completing a total of 12 hours of graduate credit in addition to 120 undergraduate hours for the BS degree. Students will complete the remaining 18 hours of MS courses and a Master's project (or thesis) during the fifth year.

To transition to the 5-year BS/MS program, Agribusiness Management majors must:

- Be within 30 hours of completing graduation requirements for the BS degree.
- Have a 3.0 cumulative GPA or better
- Submit a completed dual enrollment form to the University of Missouri Graduate School prior to registering for graduate-level courses.
- At the beginning of the last undergraduate semester, complete the Agricultural & Applied Economics MS program admission application, including recommendation letters from at least-2 faculty members of the Division.
- Choose an area of emphasis from these options
 - Environmental and Development Economics
 - Managerial, Behavioral & Organizational Economics
 - Agricultural Economics and Policy Analysis

Benefits of the program include:

- Students will begin their graduate studies while still an undergraduate, potentially completing both degrees in five years.
- Apply undergraduate financial aid toward the first year of graduate school courses.
- Possibility of graduate assistantships during the 5th year that will provide a monthly stipend and cover the cost of tuition.
- Graduating with an advanced degree that will open more career opportunities with less time spent in school.

Degree plans illustrating potential undergraduate paths to completing the 5-year program requirements are shown below for the Agricultural Economics & Policy emphasis and the Management & Entrepreneurship emphasis areas within the Agribusiness Management major. The recommended graduate level courses will depend on the student's specific MS emphasis track. In general, students will take graduate courses in:

- microeconomic theory (3 hours)
- research methods & data analysis (9 hours)
- specialization-related topics (15 hours)
- Master's project (non-thesis) research (3 hours)

5-Year Masters in Agricultural & Applied Economics?? with a BS in Agribusiness Management

For the *Agribusiness Management: Agricultural Economics & Policy Analysis emphasis*.

Year 1 Fall	Year 1 Spring
ABM 1010 - Intro to Agribusiness Mgmt ABM 1041 - Applied Microeconomics POLSCI 1100 - American Government ^a MATH 1100 - College Algebra ENGL 1000 - English Composition	ABM 1042 - Applied Macroeconomics ABM 2183 - Ag Marketing System MATH 1400 - Calculus for Business BIOSCI 1010/1020 - Biology & Lab (5 credit total)
Summer 1	
ABM 1200 - Computer Applications (online)	
Year 2 Fall	Year 2 Spring
ACCTY 2036 - Accounting 1 PHIL 1200 - How to Think ABM 2070W - Environmental Economics AGEDLD 2220 - Verbal Communication CHEM 1100 - Atoms & Molecules ^b	ACCTY 2037 - Accounting 2 ABM 2225 - Statistical Analysis ABM 3230 - Ag & Rural Economic Policy Elective - Supporting Agriculture Sciences Elective - Humanities
Summer 2	
Internship / Study Abroad (3 hours) ^c	
Year 3 Fall	Year 3 Spring
ABM 3282 - Ag Finance ABM 3272 - Int'l Food & Trade Policy ^d Elective - Supporting Agriculture Sciences Elective - Public Policy/General Elective ^e Elective - Public Policy/General Elective ^e	Elective - Supporting Agriculture Sciences Elective - Public Policy/General Elective ^e Elective - Public Policy/General Elective ^e Elective - General Elective Elective - General Elective Elective - General Elective (1 credit)
Summer 3	
Internship / Study Abroad (3 hours) ^c	
Year 4 Fall	Year 4 Spring
ABM 4240 - Micro Theory & Applications ^f Elective - Public Policy/General Elective ^e Elective - General Elective Graduate Level Course ^f Graduate Level Course ^f	ABM 4251 - Agricultural Prices ^f ABM 4990 - Econ Analysis of Policy & Regulation ^f Elective - General Elective Graduate Level Course ^f Graduate Level Course ^f
Year 5 Fall	Year 5 Spring
Graduate Level Courses - 9 credits	Graduate Level Courses - 6 credits AAE 8450 - Masters Non-thesis Research - 3 credits ^g
<p>Notes:</p> <p>a - HIST 1100 or 1200, or POLSCI 2100 may also be taken for this requirement.</p> <p>b - CHEM 1320, BIOCHM 2110 or 2112 may also be taken for this requirement.</p> <p>c - Internships and study abroad credit hours may be used to offset graduate course hours to reach the 120 credit hour requirement for the BS degree.</p> <p>d - ABM 3271 (Int'l Ag Development) may be taken instead during the Spring semester.</p> <p>e - Students must take 12 hours of approved Policy Electives.</p> <p>f - Courses in the major (e.g., ABM 4240, 4251, 4990) may be taken at the 7xx level for graduate credit during the last two semesters. Students electing to take required courses at the graduate level may have to take additional elective courses to reach the 120 credit hour requirement for the BS degree. Only 6 hours in each of the last two semesters may be taken for graduate credit.</p> <p>g - Students preparing a Master's thesis will take 6 hours of AAE 8090 and 3 fewer hours of graduate electives.</p>	

5-Year Masters in Agricultural & Applied Economics?? with a BS in Agribusiness Management

For the *Agribusiness Management: Management & Entrepreneurship emphasis*.

Year 1 Fall	Year 1 Spring
ABM 1010 - Intro to Agribusiness Mgmt ABM 1041 - Applied Microeconomics POLSCI 1100 - American Government ^a MATH 1100 - College Algebra ENGL 1000 - English Composition	ABM 1042 - Applied Macroeconomics ABM 2183 - Ag Marketing System MATH 1400 - Calculus for Business BIOSCI 1010/1020 - Biology & Lab (5 credit total)
Summer 1	
ABM 1200 - Computer Applications (online)	
Year 2 Fall	Year 2 Spring
ACCTY 2036 - Accounting 1 AGEDLD 2220 - Verbal Communication PHIL 1200 - How to Think CHEM 1100 - Atoms & Molecules ^b Elective - Supporting Agriculture Sciences	ACCTY 2037 - Accounting 2 ABM 2225 - Statistical Analysis Elective - Business/General Elective ^d Elective - Business/General Elective ^d Elective - Humanities
Summer 2	
ABM 3150 - International Agribusiness (Business Elective) ^d Internship/Study Abroad ^c	
Year 3 Fall	Year 3 Spring
ABM 3282 - Ag Finance ABM 3283 - Fundamentals of Entrepreneurship Elective - Supporting Agriculture Sciences Elective - Business/General Elective ^d Elective - General Elective	ABM 3256 - Agribusiness & Biotech Law ABM 3286 - Economics of Managerial Decisions Elective - Supporting Agriculture Sciences Elective - Business/General Elective ^d Elective - General Elective ^d Elective - General Elective (1 credit)
Summer 3	
Internship / Study Abroad (3 hours) ^c	
Year 4 Fall	Year 4 Spring
ABM 4240 - Micro Theory & Applications ^e ABM 4971W - Agribusiness Mgmt Strategy ^e Elective - General Elective Graduate Level Course ^e Graduate Level Course ^e	ABM 4251 - Agricultural Prices ^e ABM 4972/4983W - Coop Mgmt/Adv Entrep ^e Elective - General Elective Graduate Level Course ^e Graduate Level Course ^e
Year 5 Fall	Year 5 Spring
Graduate Level Courses - 9 credits	Graduate Level Courses - 6 credits AAE 8450 - Masters Non-thesis Research - 3 credits ^f
<p>Notes:</p> <p>a - HIST 1100 or 1200, or POLSCI 2100 may also be taken for this requirement.</p> <p>b - CHEM 1320, BIOCHM 2110 or 2112 may also be taken for this requirement.</p> <p>c - Internships and study abroad credit hours may be used to offset graduate course hours to reach the 120 credit hour requirement for the BS degree.</p> <p>d - Students must take 12 hours of approved Business Electives.</p> <p>e - Courses in the major (e.g., ABM 4240, 4251, 4971W, 4972, 4983W) may be taken at the 7xxx level for graduate credit during the last two semesters. Students electing to take required courses at the graduate level may have to take additional elective courses to reach the 120 credit hour requirement for the BS degree. Only 6 hours in each of the last two semesters may be taken for graduate credit.</p> <p>f - Students preparing a Master's thesis will take 6 hours of AAE 8090 and 3 fewer hours of graduate electives.</p>	

Appendix B

Proposed Program Study Plans by AAE Focus Area

MBOE: Managerial, Behavioral & Organizational Economics

PPA: Public Policy Analysis

EDE: Environmental & Development Economics

Accelerated AAE-MS Program – MBOE Focus Area, Sample Program

Year 1 of Master’s (as Provisional Graduate Student)

Course number	Course title	Credit hours
AAE 7240/ECON 7351	Intermediate Microeconomic Theory	3
<i>Choose three of the following:</i>		
AAE 7301 AAE 7971 AAE 7972 AAE 7983	Behavioral & Experimental Economics Agribusiness Management Strategy Agri-food Cooperative Management Strategic Entrepreneurship	9
Total hours		12

Summer Semester

Course number	Course title	Credit hours
Total hours		

Year 2 of Master’s (As Graduate Student [minimum of 18 credits])

Course number	Course title	Credit hours
STAT 7510	Applied Statistical Models I	3
STAT 8220	Applied Statistical Models II	3
AAE 8050	Economics of Institutions and Organizations	3
AAE 8520 or 8610	Econ of Transactions & Contracting / Econ Approach to Collective Action	3
AAE 8060	Quantitative Tools for Decision Making and Performance Evaluation	3
AAE 8450*	Non-thesis Research	3
Total hours		18
* Thesis option students should take 6 research hours. Non-thesis students will take 3 research hour and an additional 3-hour elective.		

Accelerated AAE-MS Program – PPA Focus Area, Sample Program

Year 1 of Master’s (as Provisional Graduate Student)

Course number	Course title	Credit hours
AAE 7240/ECON 7351	Intermediate Microeconomic Theory	3
<i>Choose three of the following:</i>		
AAE 7251 AAE 7295 AAE 7990 ECON 7353	Agricultural Prices Agricultural Risk Management Economic Analysis of Policy & Regulation Intermediate Macroeconomics	9
Total hours		12

Summer Semester

Course number	Course title	Credit hours
Total hours		

Year 2 of Master’s (As Graduate Student [minimum of 18 credits])

Course number	Course title	Credit hours
STAT 7510	Applied Statistical Models I	3
STAT 8220	Applied Statistical Models II	3
AAE 8265	Agricultural and Food Policy	3
AAE 9220	Price and Market Analysis	3
AAE 8090*	MS Thesis Research	6
Total hours		18
* Thesis option students should take 6 research hours. Non-thesis students will take 3 research hour and an additional 3-hour elective.		

Accelerated AAE-MS Program – EDE Focus Area, Sample Program

Year 1 of Master’s (as Provisional Graduate Student)

Course number	Course title	Credit hours
AAE 7240/ECON 7351	Intermediate Microeconomic Theory	3
<i>Choose three of the following:</i>		
AAE 7295 AAE 7400 AAE 7990 ECON 7353	Agricultural Risk Management Environmental Law, Policy & Justice Economic Analysis of Policy & Regulation Intermediate Macroeconomics	9
Total hours		12

Summer Semester

Course number	Course title	Credit hours
Total hours		

Year 2 of Master’s (As Graduate Student [minimum of 18 credits])

Course number	Course title	Credit hours
ECON 7371	Introductory Econometrics	3
AAE 8050	Economics of Institutions & Organizations	3
AAE 8410 or 8430	Natural Resource & Environ Econ or International Agricultural Development	3
AAE 8510	Research Methods and Design	3
AAE 8860	International Comparative Rural Policy	3
AAE 8450*	Non-thesis Research	3
Total hours		18
* Thesis option students should take 6 research hours. Non-thesis students will take 3 research hour and an additional 3-hour elective.		

Accelerated Degree Proposal for AAE-MS


Final Audit Report

2020-06-04


Created:	2020-06-03
By:	Amy Moum (mouma@missouri.edu)
Status:	Signed
Transaction ID:	CBJCHBCAABAAvldReWZoXdbll3eYP7XA4Lss8muVZOH

"Accelerated Degree Proposal for AAE-MS" History

Document created by Amy Moum (mouma@missouri.edu)

 2020-06-03 - 8:40:15 PM GMT- IP address: 161.130.188.111


Document emailed to Harvey S. James, Jr. (hjames@missouri.edu) for signature

 2020-06-03 - 8:46:18 PM GMT


Email viewed by Harvey S. James, Jr. (hjames@missouri.edu)

 2020-06-04 - 0:44:51 AM GMT- IP address: 64.85.207.61

Document e-signed by Harvey S. James, Jr. (hjames@missouri.edu)

 Signature Date: 2020-06-04 - 0:45:36 AM GMT - Time Source: server- IP address: 64.85.207.61


Document emailed to Joseph Parcell (parcellj@missouri.edu) for signature

 2020-06-04 - 0:45:38 AM GMT


Email viewed by Joseph Parcell (parcellj@missouri.edu)

 2020-06-04 - 9:33:05 AM GMT- IP address: 67.6.245.179

Document e-signed by Joseph Parcell (parcellj@missouri.edu)

 Signature Date: 2020-06-04 - 11:47:29 AM GMT - Time Source: server- IP address: 107.77.210.230


Document emailed to Bryan Garton (gartonb@missouri.edu) for signature

 2020-06-04 - 11:47:33 AM GMT


Email viewed by Bryan Garton (gartonb@missouri.edu)

 2020-06-04 - 12:07:59 PM GMT- IP address: 173.21.207.233

Document e-signed by Bryan Garton (gartonb@missouri.edu)

 Signature Date: 2020-06-04 - 10:41:48 PM GMT - Time Source: server- IP address: 128.206.209.7

Signed document emailed to Bryan Garton (gartonb@missouri.edu), Amy Moum (mouma@missouri.edu), Joseph Parcell (parcellj@missouri.edu), and Harvey S. James, Jr. (hjames@missouri.edu)

 2020-06-04 - 10:41:48 PM GMT

GRADUATE CERTIFICATE PROGRAM PROPOSAL
Template (modify as appropriate)

Graduate Curriculum Committee Approval Form

Name of Proposed Graduate Certificate Program

Graduate Certificate Program in Neural Engineering – Signals, Systems & Machine Learning (GRAD)

Proposal Contact Person

Name: Satish S. Nair and Dominic Ho Academic Title: Both Professors of EECS

Campus Address: 229 Naka Hall

E-mail Address: nairs@missouri.edu; hod@missouri.edu Phone: 882-2964; 882-8023

Clear statement of the educational objective

The Graduate Certificate in ‘Neural Engineering – Signals, Systems & Machine Learning (GRAD)’ will enable the student to gain both fundamental and applied understanding of brain signals and systems, and machine learning schemes in this rapidly growing component of neural big-data research. The program includes the study of basic concepts related to modeling the nonlinear electrical circuits in the brain which use concepts from signal processing, systems modeling and control disciplines. The students will gain expertise in understanding the fundamentals of signals, systems and machine learning tools for ‘reverse engineering the brain’, and also for the design of neural prostheses, and brain machine interfaces.

Indicate whether the proposed certificate is stand-alone, for degree-dependent or both

Stand-alone

Degree-dependent

Both

Indicate intended method of delivery for proposed certificate

On-ground

Online

Both

Explanation of a demonstrated need

The area of neuroscience has seen an unprecedented 592% increase in PSAT major selections among 9-11th graders (2007-2013) and a 100% increase in Ph.D. degrees awarded (2003-13)[†]. This surge in interest has resulted in the initiation of undergraduate majors in neuroscience at four-year institutions and at universities such as MIT, Harvard, UCLA, and University of Chicago. Indeed, a National Research Council report, *Research at the Intersection of the Physical and Life Sciences* [9], identified ‘Understanding the Brain’ as one of the top five grand challenges for research that will significantly benefit society, and to this end recommended development of introductory undergraduate and graduate courses at the interface of the appropriate disciplines. This, together with

the recognition of ‘reverse engineer the brain’ as one of the 14 Grand Challenges for Engineering in the 21st century [10] and the substantial funding investment by the federal BRAIN initiative [11], represents a tremendous opportunity for engineers to collaborate with neuroscientists to tackle some of the neuro-challenges for the next century at theoretical, computational, experimental, and workforce readiness levels.

† Latimer B, Bergin DB, Guntu V, Schulz DJ, Nair SS (2019), Integrating model-based approaches into a neuroscience curriculum – An interdisciplinary neuroscience course in engineering, *IEEE Transactions on Education* 62(1) 48-56

At MU, the College of Engineering partnered with the College of Arts & Science to institute an interdisciplinary Minor in Computational Neuroscience that has been jointly administered since 2012 by Drs. Satish Nair (Engineering) and Dr. David Schulz (Biology). The minor has been very popular with students from both colleges and has even had enrollment from CAFNR students. The total enrollment to date is 52.

We have two undergraduate certificates in the submission stages presently, Neural Engineering – Signals and Neural Engineering- Systems. The purpose of this graduate certificate in Neural Engineering – Signals & Systems is to provide the same option to graduate students at an advanced level, and train them to work in neuroscience-related careers, both in industry and academia. A transcribed graduate certificate in Neural Engineering-Signals & Systems will provide students with the opportunity to pursue educational objectives beyond those normally associated with their academic major in engineering.

Audience

The proposed graduate certificate in Neural Engineering-Signals & Systems provides specialization that both academia and industry would value in graduates, including

- Individuals seeking entry-level career opportunities in biomedical technologies, e.g., Medtronic, Inc.
- Individuals seeking either graduate school opportunities in neuroscience and neural engineering, one of the fastest growing PhD areas, or to the medical school where such technologies are becoming common-place now.

A minimum GPA of 2.5 is required for admission.

Demonstration that the courses will be offered regularly

The courses will be offered each year using the following rotational plan:

Core courses (select 6 credits – any two from the three below):

1. ECE/CS 7540 Neural Models and Machine Learning (elective, offered every Spring)
2. ECE/BE 7310 Feedback Control Systems – offered every Spring OR
ECE 7830 Introduction to Digital Signal Processing – offered every Fall
3. ECE/BE/
BME /CS 7590 Computational Neuroscience (required, offered regularly every Fall)

Support courses (select 6 credit hours; Should include one neuroscience course):

- One of ECE 7XXX from the ones not taken from the above
- ECE 8810 Advanced Digital Signal Processing
- ECE 8860 Probability and Stochastic Processes for Engineers
- ECE/CS 8570 Neural Dynamics and Communication
- ECE/CS 8580 Machine Learning in Neuroscience

List of Additional Course Requirements and / or Course prerequisites:

Core courses need to be taken before or parallel to the elective courses.

List of courses that define the program / sample program of study.

Complete <u>6</u> hours of required Core course				
Dept	Course #	Description	Cr Hr	Online (Y/N)
ECE/CS	7540	Neural Models and Machine Learning	3	N
ECE	7310	Feedback Control Systems <u>OR</u>	3	N
ECE	7830	Introduction to Digital Signal Processing	3	N
ECE/CS	7590	Computational Neuroscience (Required)	4	N
Examples of suggested support courses: must choose <u>6</u> semester hours from this list of courses. Should include at least one neuroscience course:				
ECE	7XXX	Any course not taken from the set above	3	N
ECE	8810	Advanced Digital Signal Processing	3	N
ECE	8860	Probability and Stochastic Processes for Engineers	3	N
ECE/CS	8570	Neural Dynamics and Communication	3	N
ECE/CS	8580	Machine Learning in Neuroscience	3	N

Accounting of Advising and Support Services**Sample Graduate Certificate Plan of Study**

Student name: _____

Mizzou ID number: _____

Certificate program _____

Anticipated certificate completion date: _____

_____ (if applicable) _____

1. Academic program: _____

2. Major _____

Consult the Graduate Catalog for a list of approved certificates.

Proposed Plan of Study: List the course numbers, course titles, number of credit hours and the term in which the courses have been/will be taken. The certificate Plan of Study must be approved by the official certificate coordinator.

Course #	Course Title	Cr Hrs	Semester	AY

Total Hours (15 undergraduate hours minimum) ____

The program of study is approved as stated. Subsequent changes must be reported on a Program of Study Course Substitution form.

Student signature Date

Graduate dean's signature Date

Certificate coordinator's signature

Date

Date copies sent to the coordinator: _____

GRADUATE CERTIFICATE PROGRAM PROPOSAL COVERSHEET
Graduate Faculty Senate Approval Form

Name of Proposed Graduate Certificate Program

Administration and Management of Family and Community Services _____

Proposal Contact Person

Name Ashlie Lester

Academic

Director of Graduate Studies

: _____

Title:

Campus Address: 314 Gentry Hall

E-mail Address: lestera@missouri.edu Phone 882-1301

Ashlie Lester
Signatur _____ Date _____

Approval Signatures

1. Ashlie Lester Ashlie Lester

Graduate Studies Director(s)*

2. _____
Printed Name _____ Signatur _____ Date _____

1. Brenda Lohman Brenda Lohman

Department Chair(s)*

2. _____
Printed Name _____ Signatur _____ Date _____

1. Brenda Lohman Brenda Lohman

Academic Unit Dean(s)*

2. _____
Printed Name _____ Signature _____ Date _____

Graduate School Dean

Printed Name _____ Signature _____ Date _____

Graduate Faculty Senate President

Printed Name _____ Signature _____ Date _____

Provost

Printed Name _____ Signature _____ Date _____

Chancellor

Printed Name _____ Signature _____ Date _____

UM Vice President For Academic Affairs

Printed Name _____ Signature _____ Date _____

Proposal Submission Check List

- Coversheet with necessary signatures
- Clear statement of the educational objective
- Indication certificate is stand-alone, for degree-seeking or both
- Explanation of a demonstrated need
- Assessment of impact on existing graduate degree programs
- Course work list

- Sample plan of study and the proposed completion timeline
- Explanation of the management structure
- A blank Plan of Study Form
- Send this packet in c/o Ruth Erwin to the Graduate School, 210 Jesse Hall

*Add additional signature pages if necessary

Graduate Certificate Proposal
Administration and Management of Family and Community Services
Department of Human Development and Family Science

The graduate faculty of the Department of Human Development and Family Science (HDFS) respectfully submit this proposal to create a graduate certificate in Administration and Management of Family and Community Services (AMFCS).

Educational Objective: This online certificate program will provide students the knowledge and skills to develop, administer, manage, evaluate, and grow programs designed to enhance the health and well-being of individuals and families.

The proposed Administration and Management of Family and Community Services certificate program is developed from an established parent degree (the Master of Arts in Human Development and Family Science, emphasis in Family and Community Services). It is a stand-alone program, delivered entirely online, and open to all students.

Explanation of Demonstrated Need: There is a need for this certificate program, both for workers who want more training and for employers who are looking to fill administration and management positions. A market demand survey conducted by EAB Consulting in 2018 indicates that human services administrators/managers are in demand. In their review of open job descriptions, administrative and management skills were listed most frequently. The Bureau of Labor Statistics projects above average growth from 2014 to 2024, including 10% employment growth for social and community service managers. EAB indicated that integrating staff management and finance coursework into the curriculum, in particular, will help meet employer demand. Further, our own students report in surveys administered by Great Plains IDEA that they hope to advance to management positions in their careers.

This certificate program may tap into a population who desires additional training for career advancement, but does not want to commit to an entire Master of Arts program.

Impact on Existing Programs: Our department offers a Master of Arts degree in Family and Community Services through the Great Plains IDEA. It may be that some of our MA students may switch to the shorter certificate program. However, another member institution has already implemented a certificate in family and community services, and they see no change in MA enrollment.

Our department also offers a certificate in Youth Development Program Management and Evaluation (YDPME). The course content for AMFCS and YDPME, although similar, is unique. The AMFCS courses are based on systems theory, family dynamics, and community involvement, whereas the YDPME courses are based on the principles of positive youth development and individual growth. We do not anticipate any decrease in enrollment for the YDPME certificate should the AMFCS certificate be approved.

Outside of our department, no other certificate options are comparable. Thus, this certificate could add to the unique offerings of MU.

Course Work List:

Total credit hours needed: 12

Required courses:

HDFS 7233: Basic Grant Development and Management (3 cr)

HDFS 8235: Program Administration and Management (3 cr)

HDFS 8238: Program Design, Evaluation, and Implementation (3 cr)

Suggested elective courses:

HDFS 7600: Family Resilience (3 cr)

HDFS 7650: Family Crisis Intervention (3 cr)

HDFS 8012: Family Dynamics and Intervention (3 cr)

Sample Plan of Study in Appendix A

Number of Semesters: 2

Management Structure: The current Director of Graduate Studies will direct the certificate program.

Ashlie Lester

411 Gentry Hall

lester@missouri.edu

573-882-1301

As part of her role, Dr. Lester will oversee the admissions process, sign and maintain paperwork, evaluate student progress, and communicate with students regarding their program.

The advisory committee consists of one faculty member from each participating institution in the Family and Community Services curriculum group through the Great Plains IDEA. The participating institutions are the University of Missouri, Kansas State University, University of Nebraska, Michigan State University, South Dakota State University, and Oklahoma State University.

Participating faculty members and affiliation: Because the courses will be offered through the Great Plains IDEA, some courses will be taught by MU-affiliated faculty, and others will be taught through other member institutions. Below are the list of required and suggested courses, their current instructors, and the instructor's institutional affiliation:

Program Administration and Management: Dr. Robert Pick (University of Nebraska-Lincoln); Dr. Robin Horstmeier (University of Missouri)

Program Design, Evaluation, and Implementation: Dr. Janet Crow (Kansas State University); Amber Letcher (South Dakota State University)

Basic Grant Development and Management: Dr. Elaine Johannes (Kansas State University)

Family Resilience: Dr. Richard Feistman (University of Missouri); Laurie Bullock (Michigan State University)

Family Crisis Intervention: Carolyn Henry (Oklahoma State University); Carrie Hanson-Bradley (University of Nebraska)

Family Dynamics and Intervention: Dr. Chelsea Garneau-Rosner (University of Missouri)



Graduate Certificate Plan of Study

Submit to the Graduate School, 210 Jesse Hall.

Student name: Truman T. Tiger

Mizzou ID number: 12345678

Certificate program: Administration and Management of Family and Community Services

Anticipated certificate completion date: Spring 2021
(if applicable)

Academic program: Human Development and Family Science

Degree (i.e. MS, MA, PhD): _____ Major: _____

Consult the Graduate Catalog for a list of approved graduate certificates.

Proposed Plan of Study: List the course numbers, course titles, number of credit hours and the term in which the courses have been/will be taken. The certificate Plan of Study must be approved by the official certificate coordinator.

Course number	Title	Hours	Semester/Year Grade	
HDFS 8235	Program Administration and Management	3	F 2020	A
HDFS 8238	Program Design, Evaluation, and Implementation	3	F 2020	A
HDFS 7233	Basic Grant Development and Management	3	Sp 2021	A
HDFS 8012	Family Dynamics and Intervention	3	Sp 2021	A

Total Hours (12 graduate hours minimum) ¹² _____

