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OFFICE OF THE PRESIDENT

January 15, 2021

James D. Fielder, Jr.
Secretary of Higher Education
Maryland Higher Education Commission
6 N. Liberty Street
Baltimore, MD 21201

Dear Secretary Fielder:

I am writing to request approval for a new Master of Extension Education program. The proposal for the new program is attached. I am also submitting this proposal to the University System of Maryland for approval.

The proposal was endorsed by the appropriate faculty and administrative committees and was recommended for approval by the University Senate at its meeting on December 8, 2020. I also endorse this proposal and am pleased to submit it for your approval.

Sincerely,

A handwritten signature in cursive script that reads "Darryll J. Pines".

Darryll J. Pines
President
Glenn L. Martin Professor of Aerospace Engineering

DJP/mdc

cc: Antoinette Coleman, Associate Vice Chancellor for Academic Affairs
Mary Ann Rankin, Senior Vice President and Provost
Craig Beyrouty, Dean, College of Agriculture and Natural Resources

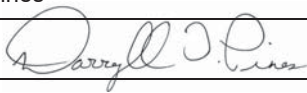


Cover Sheet for In-State Institutions
New Program or Substantial Modification to Existing Program

Institution Submitting Proposal	University of Maryland, College Park
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Each action below requires a separate proposal and cover sheet.

- | | |
|---|---|
| <input checked="" type="radio"/> New Academic Program | <input type="radio"/> Substantial Change to a Degree Program |
| <input type="radio"/> New Area of Concentration | <input type="radio"/> Substantial Change to an Area of Concentration |
| <input type="radio"/> New Degree Level Approval | <input type="radio"/> Substantial Change to a Certificate Program |
| <input type="radio"/> New Stand-Alone Certificate | <input type="radio"/> Cooperative Degree Program |
| <input type="radio"/> Off Campus Program | <input type="radio"/> Offer Program at Regional Higher Education Center |

Payment <input type="radio"/> Yes Submitted: <input checked="" type="radio"/> No	Payment <input checked="" type="radio"/> R*STARS Type: <input type="radio"/> Check	Payment Amount: 850	Date Submitted:
Department Proposing Program	Plant Sciences and Landscape Architecture		
Degree Level and Degree Type	Master of Extension Education		
Title of Proposed Program	Extension Education		
Total Number of Credits	30		
Suggested Codes	HEGIS: 010101.00	CIP: 01.0801	
Program Modality	<input checked="" type="radio"/> On-campus <input type="radio"/> Distance Education (<i>fully online</i>)		
Program Resources	<input checked="" type="radio"/> Using Existing Resources <input type="radio"/> Requiring New Resources		
Projected Implementation Date	<input checked="" type="radio"/> Fall <input type="radio"/> Spring <input type="radio"/> Summer Year: 2021		
Provide Link to Most Recent Academic Catalog	URL: https://academiccatalog.umd.edu/		
Preferred Contact for this Proposal	Name: Michael Colson		
	Title: Senior Coordinator for Academic Programs		
	Phone: (301) 405-5626		
	Email: mcolson@umd.edu		
President/Chief Executive	Type Name: Darryll J. Pines		
	Signature: 		Date: 01/15/2021
	Date of Approval/Endorsement by Governing Board:		

Revised 4/2020

A. Centrality to the University's Mission and Planning Priorities

Description. The proposed Master of Extension Education embodies the historic founding principles of the Land Grant mission of the University of Maryland. The focus on intertwined academics, applied research, and engagement with diverse communities provides a multidimensional problem-solving learning environment for students. This program mirrors the University's mission and vision through the intent to expand an individual's knowledge while building life science and social science research skills coupled with enabling their teaching skills through outreach, more commonly known as non-formal facilitation. The interdisciplinary focus of this program has been designed to equip students with opportunities to examine, develop, and analyze educational projects in collaboration with their career focus such that authentic and impactful experiences prepare the students to communicate community-based research with various populations.

Relation to Strategic Goals. The proposed Master of Extension Education relates to UMD's strategic goals through multiple dimensions. Most relevant are the goals of delivering high quality graduate education at all levels and those to deploy UMD's scholarly resources and service activities to solve pressing problems in the local community and the state. The Extension unit of the College of Agriculture and Natural Resources reaches all corners of the state and a number of differing areas of the state's economy. Extension education uses non-formal education skills, working with the community across the State of Maryland, to detect societal challenges, examine solution options, and develop action plans with individuals and communities toward a goal for improved quality of life. Maryland's diversity of people, land, and occupations provide significant opportunities for study across various dimensions of research and outreach education.

Funding. Resources for the new program will be drawn from a modest reallocation of effort from within the College of Agriculture and Natural Resources.

Institutional Commitment. The program will be administered by the Department of Plant Sciences and Landscape Architecture within the College of Agriculture and Natural Resources at the University of Maryland. The College has the capacity to launch this program with the recent hiring of an assistant clinical professor in extension education, along with support from faculty from across the college in various disciplines as well as the cadre of existing Agents within the Extension unit. Although the campus is currently under a hiring freeze, the College has a long-standing, multi-year commitment to re-establish this program, and the Dean has committed to hiring an additional faculty member to support the program as soon as is feasible.

B. Critical and Compelling Regional or Statewide Need as Identified in the State Plan

Need. In the mid-nineteen nineties, the Agricultural Extension Education programs at the University of Maryland were discontinued, due to a variety of reasons. Outreach efforts continued informally through Extension programming, as is customary with Land Grant universities. However, individuals needing the academic credentials to seek employment within

university Extension positions would have to acquire their training at other universities or specialize in a content field and then utilize professional development options within early career work to understand Extension principles. Over time, consistent feedback from stakeholders revealed the need for more formal coursework directed toward Extension education as well as development of an advanced degree for individuals seeking to advance their careers in addition to expanding their knowledge and skills.

The proposed program is designed to meet the needs of these professionals within the University Extension, but also those in non-profit organizations, community agricultural outreach, technical institutes, and agricultural education. These areas, in-turn, support the growing local and state agricultural community and broader agricultural industry of the mid-Atlantic region. Respondents (n=154) to a survey of current Extension professional and agricultural education stakeholders within the state of Maryland revealed an immediate interest of 55 individuals in achieving a graduate degree in Extension Education. Additionally, those not interested in obtaining a degree at this time expressed interest in completing courses for professional development. The initial students for the program would be off-site Extension professionals (current UMD employees) or those seeking entry level positions within Extension. However, various stakeholders across the state, nationally and internationally with whom the College has existing relationships have also expressed interest in this kind of a program.

State Plan. The proposed program aligns with the *Maryland State Plan for Postsecondary Education* in several ways. County Extension educators support their local communities not only in areas well beyond agriculture, including 4-H youth programs, family and consumer sciences, and natural resource management. All of these are focused on improving the lives of Maryland citizens. The Family and Consumer Sciences programs contribute directly to Strategy 2, cultivating greater financial literacy. The 4-H youth programs dovetail with strategies 1 and 2, to improve student readiness for higher education. More broadly, the Master of Extension Education program connects directly to Strategy 7 to enhance career opportunities for Extension professionals across the state.

C. Quantifiable and Reliable Evidence and Documentation of Market Supply and Demand in the Region and State

Extension specialists work in a variety of life, physical, and social science fields. The U.S. Bureau of Labor Statistics reports a projected 7% growth in these fields from 2018-2028. The increasing demand for expertise in the sciences is growing faster than the average for all occupations. Many land grant colleges' degrees in Extension are aligned with agricultural education programs, and it is common for an agricultural education teacher to acquire a Masters in Extension Education. The annual National Agricultural Education Supply & Demand reports reflect the number of openings and the pool of graduates to fill those vacancies. While the overall job outlook by the U.S. Bureau of Labor Statistics for Career and Technical Education teachers is estimated to hold steady with a potential one percent drop in projected employment by 2028, the 2018 National Agricultural Education Supply & Demand Study reported a shortfall of licensed or alternatively licensed agricultural teachers nationwide. The

report stated 247 new positions and 140 new programs were added in the 2017-18 school year. With regard to Extension field based positions in Maryland, the Agriculture and Food Systems Program has filled five positions in the last two years and two more positions are expected to be filled this year, although two additional positions will not be filled at this time due to Covid-19. Over the next five years, there will be a significant number of retirements from the UME Agriculture and Food Systems Program (~25%).

D. Reasonableness of Program Duplication

This program is a revitalization of a historic program at the University of Maryland and this type of degree program is typically offered only at Land- grant institutions. There is no other master's level program focused on Extension Education currently offered at another site in Maryland.

E. Relevance to Historically Black Institutions (HBIs)

No Historically Black Institutions (HBIs) in Maryland offer this master's degree program. The University of Maryland Eastern Shore (UMES) does have a master's program in Food and Agricultural Sciences with an area of concentration in Agricultural and Extension Education. UMD's college of Agriculture and Natural Resources discussed the proposed program with the UMES School of Agricultural and Natural Sciences. Both schools determined the program would not have a negative impact on the UMES program, and the two schools agreed that future collaboration in this area would be mutually beneficial.

F. Relevance to the identity of Historically Black Institutions (HBIs)

The proposed program should not negatively impact the identity of HBI's in the state of Maryland. UMD and UMES both have well-established agricultural programs. Rather than negatively impacting UMES's program, the proposed program should serve as a catalyst for future collaboration between the two institutions.

G. Adequacy of Curriculum Design, Program Modality, and Related Learning Outcomes

Curricular Development. As part of the effort to restart this program, the College of Agriculture and Natural Resources hired an assistant clinical professor, Melissa Welsh, whose expertise is in agriculture education programs. Dr. Welsh called on the expertise within the department of Plant Sciences and Landscape Architecture, as well as with other faculty in the College to design the core course material and create the structure for the elective pathways.

Faculty Oversight. The faculty within the College of Agriculture and Natural Resources will oversee the curriculum. The Department of Plant Science and Landscape Architecture will provide academic direction and oversight of the program as well as instructors for the four core courses. Faculty from across the College will provide instruction for a majority of elective

courses in the program. A list of engaged faculty and their roles in the program are provided in Appendix A.

Educational Objectives and Learning Outcomes. The Master of Extension Education program reflects educational objectives in critical thinking, leadership, and relationship building. Students will examine multiple modes of educational delivery methods. Courses will enhance students' selection and application of quantitative and qualitative data collection skills within authentic learning experiences. The program of study prepares students for the process of conducting needs assessment with recognition of cultural, emotional, and social sensitivity among varying communities while encouraging rigorous scientific practices to develop practical solutions to identified problems. The primary program objectives are list below.

1. Examine educational psychology concepts as applied within the field of Extension education.
2. Utilize critical thinking and communication skills to engage with stakeholders.
3. Develop scientific literacy through independently assessing, interpreting, and summarizing scholarly works.
4. Expand academic and technical knowledge through authentic and active learning experiences.
5. Increase student's awareness of navigating programming with local, state, national and global systems.

Institutional assessment and documentation of learning outcomes. The relationship between program objectives and program learning outcomes and assessments are included in Appendix C. The University has a robust campus-wide set of procedures for learning outcomes assessment at the undergraduate level and has a pilot underway for graduate level instruction.

Course requirements. The proposed 30-credit program includes four required courses (12 credits), followed by 12-18 credits of elective courses offered on a wide variety of topics. Students pursuing the thesis option will take 12 credits of electives and 6 credits of thesis research; those pursuing the non-thesis option will take more elective courses to complete the full 30 credits and complete a publication quality document relevant to their area of study. Students will work with a faculty advisor to identify and enroll in a set of elective courses that align with their career focused learning outcomes. Areas that students may pursue are well-align with the disciplines within the College of Agriculture and Natural Resources, including but not limited to Plant Science, Animal Science, Environmental Science, Nutrition, and Agricultural Economics. A sample of course titles included in Appendix B, but due to the length, not all course descriptions are included here – they are available in the UMD Graduate Catalog at <https://academiccatalog.umd.edu/graduate/courses/>. A sample course plan for a student interested in focusing on Food systems and Agriculture Extension career while employed in a full-time job. Course descriptions for the four core courses and those in this sample plan are included in Appendix B.

Core Curriculum (courses with a * are new and submitted for approval)

Course	Title	Cr
AGNR 606	Program Planning and Evaluation in Agricultural Education	3
AGNR 630	Teaching-Learning in Adult and Continuing Education	3
*AGST 605	Extension Research Methods and Applied Data Analysis	3
*AGST 640	Critically Examine Maryland Agriculture, Agricultural Industry and Agriculture Literacy.	3
	Total Core Credits	12

Sample Plan for a student interested in Food Systems

Course	Title	Cr
NFSC 690	Nutrition and Aging	3
NFSC 440	Advanced Human Nutrition	4
NFSC 430	Food Microbiology	3
ENTM 609	Integrated Pest Management	1-4
AGST 799	Master's Thesis Research	1-6
	Total Elective Credits (must be at least 18)	20 max

General Education.

N/A

Accreditation or Certification Requirements.

N/A

Other Institutions or Organizations. The department does not currently intend to contract with another institution or non-collegiate organization for this program. However, students do have the opportunity to fulfill elective options, in consultation with their academic advisor, at a number of universities with the metropolitan DC area through the Washington Area Consortium, as well as through inter-institutional enrollment within the University System of Maryland.

Student Support. As students are admitted into the program, they will meet with the program leaders who will assist them in creating a graduate committee and a set of electives that meet their career objectives. Students will also be connected to other professionals beyond the University if their interests cannot be met by University expertise. Student progress will be reviewed on an annual basis.

Marketing and Admissions Information. The initial focus of the program are county extension professionals who seek the added credential to advance their career. As the program develops, the College will use its existing relationships throughout the state, as well as internationally, to make its program known and recruit additional students. Admission to the program will follow the requirements of the University of Maryland Graduate School.

H. Adequacy of Articulation

N/A

I. Adequacy of Faculty Resources

Program faculty. Appendix A contains a list of faculty who will be engaged in the core curriculum.

Faculty training. Faculty teaching in the program will use the University's learning management system along with its extensive electronic resources. They will have access to instructional development opportunities available across the College Park campus, including those offered as part of the Teaching and Learning Transformation Center, many of which are delivered in a virtual environment. Instructors will work with the learning design specialists on campus to incorporate best practices when teaching in the online environment.

J. Adequacy of Library Resources

The University of Maryland Libraries has conducted an assessment of library resources required for this program. The assessment concluded that the University Libraries are able to meet, with its current resources, the curricular and research needs of the program.

K. Adequacy of Physical Facilities, Infrastructure, and Instructional Resources

The four core courses of the program will be delivered online, asynchronously, to accommodate students who are likely to be working full-time. The elective courses will be delivered in a mix of online and in-person instruction, depending on enrollments and faculty preparation. We do not anticipate that this will be a fully online program at this time.

L. Adequacy of Financial Resources

Resources for the program will be provided by the College of Agriculture and Natural Resources, which has the capacity to launch the program. See Tables 1 and 2 for anticipated resources and expenditures.

M. Adequacy of Program Evaluation

Formal program review is carried out according to the University of Maryland's policy for Periodic Review of Academic Units, which includes a review of the academic programs offered by, and the research and administration of, the academic unit (<http://www.president.umd.edu/policies/2014-i-600a.html>). Program Review is also monitored following the guidelines of the campus-wide cycle of Learning Outcomes Assessment (https://irpa.umd.edu/Assessment/loa_overview.html). Faculty within the department are reviewed according to the University's Policy on Periodic Evaluation of Faculty Performance (<http://www.president.umd.edu/policies/2014-ii-120a.html>). Since 2005, the University has used an online course evaluation instrument that standardizes course evaluations across campus. The course evaluation has standard, university-wide questions and also allows for supplemental, specialized questions from the academic unit offering the course.

N. Consistency with Minority Student Achievement goals

It is of great importance to recruit and retain a diverse student population, since this program is designed to prepare graduates to work with diverse populations across various ecological systems. Students will be encouraged to join supportive student groups such as AGNR's MANRRS: Minorities in Agriculture Natural Resources and Related Sciences. MANRRS promotes academic and professional advancement by empowering minorities in agriculture, natural resources, and related sciences. Recognizing the changing demographics in agriculture, the program leadership will work to mentor minority students with intentional supplemental programming.

O. Relationship to Low Productivity Programs Identified by the Commission

N/A

P. Adequacy of Distance Education Programs

While some of the coursework for this program will be delivered online, we anticipate at this time that more than 50% of the program will be delivered in-person once the pandemic emergency has subsided. Other than the four core course requirements, the majority of courses will be offered in-person.

Tables 1 and 2: Resources and Expenditures

Table 1: Resources

Resources Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1. Reallocated Funds	\$50,000	\$30,000	\$30,000	\$30,000	\$30,000
2. Tuition/Fee Revenue (c+g below)	\$146,823	\$337,945	\$348,083	\$358,526	\$369,282
a. #FT Students	5	10	10	10	10
b. Annual Tuition/Fee Rate	\$21,325	\$21,964	\$22,623	\$23,302	\$24,001
c. Annual FT Revenue (a x b)	\$106,623	\$219,643	\$226,233	\$233,020	\$240,010
d. # PT Students	5	10	10	10	10
e. Credit Hour Rate	\$820.40	\$845.01	\$870.36	\$896.47	\$923.37
f. Annual Credit Hours	14	14	14	14	14
g. Total Part Time Revenue (d x e x f)	\$40,200	\$118,302	\$121,851	\$125,506	\$129,271
3. Grants, Contracts, & Other External Sources	\$0	\$0	\$0	\$0	\$0
4. Other Sources	\$0	\$0	\$0	\$0	\$0
TOTAL (Add 1 - 4)	\$196,823	\$367,945	\$378,083	\$388,526	\$399,282

Reallocated funds come from a redirection of resources at the College level for initial support of this program.

Table 2: Expenditures

Expenditure Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1. Faculty (b+c below)	\$103,415	\$213,036	\$219,427	\$226,010	\$232,790
a. #FTE	1.0	2.0	2.0	2.0	2.0
b. Total Salary	\$79,981	\$164,761	\$169,704	\$174,795	\$180,039
c. Total Benefits	\$23,434	\$48,275	\$49,723	\$51,215	\$52,751
2. Admin. Staff (b+c below)	\$30,464	\$31,378	\$32,319	\$33,288	\$34,287
a. #FTE	0.5	0.5	0.5	0.5	0.5
b. Total Salary	\$22,499	\$23,174	\$23,869	\$24,585	\$25,323
c. Total Benefits	\$7,965	\$8,204	\$8,450	\$8,703	\$8,964
3. Total Support Staff (b+c below)	\$0	\$0	\$0	\$0	\$0
a. #FTE	0.5	0.5	0.5	0.5	0.5
b. Total Salary	\$0	\$0	\$0	\$0	\$0
c. Total Benefits	\$0	\$0	\$0	\$0	\$0
4. Graduate Assistants (b+c)					
a. #FTE	0.0	0.0	0.0	0.0	0.0
b. Stipend	\$0	\$0	\$0	\$0	\$0
c. Tuition Remission					
5. Equipment					
6. Library					
7. New or Renovated Space	\$0	\$0	\$0	\$0	\$0
8. Other Expenses: Operational Expenses	\$60,000	\$120,000	\$120,000	\$120,000	\$120,000
TOTAL (Add 1 - 8)	\$193,879	\$364,413	\$371,746	\$379,298	\$387,077

Other expenses include tuition remission for existing employees who are the initial primary target audience for program enrollment.

Appendix A: Faculty in the Department of Plant Science and Landscape Architecture

All of the core faculty who teach at the graduate level hold doctoral degrees in a field relevant to the discipline. All faculty listed are full-time. Specific course assignments have not yet been made, but will be made in time to schedule the courses for the target start term of Fall 2021. Some additional hires are anticipated to support the program in the Department of Plant Science and Landscape Architecture. The full list of department faculty can be found at the department's web site, at <https://psla.umd.edu/people/faculty> . Specific faculty who are most closely associated with the program are identified below.

Faculty Name	Highest Degree Earned - Field and Institution	Rank
Melissa Leiden Welsh	Ph.D., Youth Development and Agricultural Education, Purdue University	Assistant Clinical Professor; Full-Time
Bill Phillips	Ph.D., Weed/Crop Ecophysiology, University of Maryland	Assistant Clinical Professor; Full-Time
John Erwin	PhD., Horticulture, Michigan State University	Professor and PSLA Chair; Full-Time
Darren Jarboe	Ph.D., Industrial and Agricultural Technology, Iowa State University	Principal Agent & Assistant Director, Agriculture & Food Systems; Full-Time
Joe Sullivan	Ph.D., Plant Physiology, Clemson University	Professor and Associate Dean for Academic Programs; Full-Time
John Lea-Cox	Ph.D., Plant Physiology, University of Florida	Professor; Full-Time
Nicole Fiorellino	Ph.D., Environmental Science and Technology, University of Maryland	Assistant Professor and Extension Specialist; Full-Time
Diana Cochran	Ph.D., Agricultural Science, Mississippi State University	Assistant Clinical Professor; Full-Time
Mengjun Hu	Ph.D., Plant Pathology, Huazhong Agricultural University	Assistant Professor and Extension Specialist; Full-Time

Appendix B: Course Descriptions

Only the four core courses are listed here, since beyond the 12-credit core students will be able to tailor their curriculum through the many available graduate-level offerings within the College of Agriculture to create a focused plan of study created in collaboration with their academic advisor.

AGNR 606 – Program Planning and Evaluation in Agriculture Education

Analysis of community agricultural and extension education needs, selection and organization of course content, criteria and procedures for deploying and evaluating programs. Critical analysis of diversity, equity and inclusion in the planning process.

AGST 605 -- Extension Research Methods with Applied Data Analysis

Examine foundational qualitative and quantitative research methods in real-world social and behavioral settings for extension and outreach educators. This course enables you to distinguish, select and apply research methods to conduct social science research in a non-formal education setting. A variety of data analysis approaches will be examined across Extension and outreach education applications.

AGNR 630 – Teaching and Learning in Adult and Continuing Education

Critically analyze the teaching/learning process in adult continuing education with a focus on instructional techniques and methodologies appropriate for adults. Students examine the curriculum development process while evaluating issues and priorities in adult continuing education.

AGNR 640 -- Critically Examine Maryland Agriculture, Agricultural Industry and Agricultural Literacy

Examine the mission and history of the Land Grant System as well as appraising the current work conducted through the University of Maryland Extension to extend research to citizens. Often referred to as America in miniature, Maryland boasts diverse people, agricultural practices, cultures, and ecosystems which students will examine to perceive the decision-making processes within and across ecological systems. An enriching field practicum with an agricultural agency is required.

Appendix C: Program Objectives, Learning Outcomes, and Methods of Assessment

Program Objectives	Student Learning Outcomes Aligned to Program Objectives	Methods of Assessment
Examine educational psychology concepts as applied within the field of Extension education	Demonstrate the selection and application of educational theories to support observed practices in Extension Education.	Student formative presentations and summative artifacts completed within coursework
Utilize critical thinking and communication skills to engage with stakeholders	Hone leadership and relationship building skills while designing needs assessments for research and outreach education	Student constructed community needs assessment plans coupled with expanded professional networks.
Develop scientific literacy through independently assessing, interpreting, and summarizing scholarly works	Organize and present research findings to add to the body of knowledge as well participating in Extension outreach.	Student constructed publications, media and outreach presentations.
Expand academic and technical knowledge through authentic and active learning experiences	Make use of advanced knowledge and skills to identify and problem solve current issues facing urban and rural communities	Student formative presentations and summative artifacts completed within coursework
Increase student's awareness of navigating programming with local, state, national and global systems	Recognize opportunities to differentiate outreach efforts with diverse audiences	Student conduct, presentations, and artifacts reflect inclusive facilitation strategies