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July 23, 2019

James D. Fielder, Jr. Ph.D.
Maryland Higher Education Commission
6 North Liberty Street
Baltimore, MD 21201

Dear Secretary Fielder:

UMBC seeks approval to offer a stand-alone Post-Master's Certificate (PMC) in College Teaching and Learning Science. The certificate will be offered online and is designed to prepare students to teach in community colleges or four-year institutions.

The program will offer current and future educators with substantive knowledge in their fields the empirically based knowledge, skills, and strategies to address successful learning at the college level. The certificate is consistent with UMBC's mission and Strategic Plan. Students who earn the certificate will be positioned well to compete for positions as community college faculty, adjunct faculty, and university teaching faculty.

Thank you very much for your review of this proposal for UMBC to offer the PMC in College Teaching and Learning Science.

Sincerely,

Freeman A. Hrabowski, III

President

C: Dr. Antonio Moreira

UNIVERSITY SYSTEM OF MARYLAND INSTITUTION PROPOSAL FOR

- New Academic Program
- Substantial Expansion/Major Modification
- Cooperative Degree Program
- Within Existing Resources, or
- Requiring New Resources

UMBC

Institution Submitting Proposal

College Teaching & Learning Science

Title of Proposed Program

Post-Master's Certificate
Award to be Offered

Fall 2020
Projected Implementation Date

Proposed HEGIS Code

13.12.14

Proposed CIP Code

Psychology

Beth Wells

Department in which program will be located

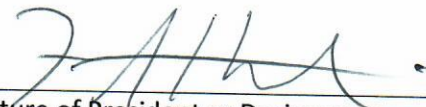
Department Contact

410-455-8907

bwells@umbc.edu

Contact Phone Number

Contact E-Mail Address


Signature of President or Designee

7/31/19
Date



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

Office Use Only: PP#

Institution Submitting Proposal	UMBC
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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 Submitted: <input type="radio"/> Yes <input checked="" type="radio"/> No	Payment Type: <input type="radio"/> R*STARS <input type="radio"/> Check	Date Submitted:
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Department Proposing Program	Psychology	
Degree Level and Degree Type	Post-Master's Certificate	
Title of Proposed Program	College Teaching & Learning Science	
Total Number of Credits	15	
Suggested Codes	HEGIS:	CIP: 13.1214
Program Modality	<input type="radio"/> On-campus <input checked="" type="radio"/> Distance Education (<i>fully online</i>) <input type="radio"/> Both	
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: 2020	
Provide Link to Most Recent Academic Catalog	URL: https://catalog.umbc.edu/index.php?catoid=21	

Preferred Contact for this Proposal	Name: Beth Wells
	Title: Assistant Vice Provost for Academic Affairs
	Phone: (410) 455-8907
	Email: bwells@umbc.edu

President/Chief Executive	Type Name: Freeman A. Hrabowski, III
	Signature: Date: 7-31-19
	Date of Approval/Endorsement by Governing Board:

Revised 6/13/18

Maryland Higher Education Commission (MHEC)
Academic Program Proposal for a Post-Master's Certificate
in College Teaching and Learning Science
UMBC

The title of the program and the degree or certificate to be awarded: Post-Master's Certificate (PMC) in College Teaching and Learning Science within the Department of Psychology.

Centrality to institutional mission statement and planning priorities: The PMC will prepare graduates to teach in a community college or four-year college setting. The program is based in learning science, which has strong underpinnings of psychological theory and research. There is growing evidence that active and innovative approaches to learning are necessary to reach, retain, and successfully educate college learners. This certificate program will provide current and future educators with empirically based knowledge, skills, and strategies to address successful learning at the college level.

Learning science extends beyond psychology in that it also accounts for socio-cognitive, socio-cultural, contextual, and instructional technology design approaches to the understanding of learning. Learning science is a branch of cognitive science that emphasizes improving education through research evaluation, informed modification, and application of new technologies and learning environments. Learning science considers various interacting factors that influence human learning. This PMC is built on the foundation of empirical evidence for best practices and follows the scholarship of teaching learning literature that emphasizes a student-centered approach to optimize opportunities for learning to occur.

The proposed PMC is comprised of five courses for a total of 15 credits. The courses will be online, utilizing contemporary elearning technologies. The program was developed by the Department of Psychology with advisement from and consultation with colleagues from across the UMBC campus, USM System, and from other institutions. The Division of Professional Studies (DPS) is the administrative partner for the certificate. Partnering with DPS gives the PMC access to marketing, enrollment management, and financial professionals, information technology, and infrastructure support.

UMBC's mission statement specifically references that our programs "prepare [students] for graduate and professional study, entry into the workforce, and community service and leadership." This program prepares students from varied backgrounds for college teaching positions, allowing UMBC to meet current and future workforce demands in this field. The UMBC vision statement states that we, "redefine excellence in higher education through an

inclusive culture that connects innovative teaching and learning...". This program educates students who will then practice innovative teaching and learning strategies in their own community college or 4-year universities.

The UMBC strategic plan, *A Strategic Plan for Advancing Excellence*, specifically highlights a goal of:

Developing innovative curricula and academic programs that support and enhance the success of our undergraduate and graduate students and prepare them for meaningful careers, lifelong learning, and engaged citizenship; and thereby enhance our position as a national leader in undergraduate and graduate education.

The PMC advances this goal by providing an innovative curriculum not found at any other university in Maryland. By preparing students to go into college instruction, UMBC is contributing to future student success.

UMBC is committed to supporting this program administratively, financially, and technically. The program is self-supported through tuition revenue and will not require any additional funding sources beyond student tuition. As the administrative partner, DPS has committed to investing in any start-up costs needed to launch the program.

Critical and Compelling Regional or Statewide Need as Identified in the State Plan: Offering the PMC responds to crucial state needs as identified in the Maryland State Plan for Postsecondary Education (2017 - 2021). Increasing innovation in our higher education institutions is a theme found throughout the plan. One of the goals of the plan is to "Foster innovation in all aspects of Maryland higher education to improve access and student success." A strategy in support of this goal is to "Strengthen and sustain development and collaboration in addressing teaching and learning challenges." At the heart of learning science is the development of effective learning methods and solutions. The Johns Hopkins Science of Learning Institute states that, "While learning is vital to success in so many areas, we are only now beginning to possess the knowledge and techniques to understand how it works...learning is a complex process that spans interdependent biological, psychological, sociocultural, and technological systems..." The PMC emphasizes the understanding and application of learning research and the cognitive-psychological, social-psychological, and cultural-psychological foundations of human learning. The program will examine the characteristics of college learners and the design of successful learning environments that respond to the needs of diverse college learners.

The USM Strategic Plan's goals also support the development of the PMC. The plan states that Maryland's leadership has set a goal of having at least 55% of its adult population attain a college degree. The PMC emphasizes best practices in engaging college learners, reaching students with motivation strategies, and designing courses using innovative practices. The graduates of the program will be stronger higher education instructors, which supports increased student retention and completion rates.

Quantifiable and Reliable Evidence and Documentation of Market Supply and Demand in the Region and State: This program will be appropriate for post-masters' graduate students, community college faculty, adjunct faculty, university teaching faculty, and individuals transitioning to college teaching. This target audience includes substantive experts in their respective fields and domains of study who have limited preparation as educators in their respective disciplines. The certificate will allow graduates to distinguish themselves from other candidates applying for similar jobs who have the content expertise, but no coursework in instruction. This certificate program will reach outside of UMBC to engage community colleges and other universities, graduate students, and professionals transitioning to college teaching. The program will be offered online, extending the geographic reach of the target market.

The Bureau of Labor Statistics (BLS) expects nationwide employment of postsecondary teachers to grow 15% between 2016 and 2026, much faster than the 7% average across all occupations. According to the BLS, colleges and universities are likely to hire more part-time teachers to meet the demand as there is expected to be a limited number of full-time non-tenure and full-time tenure positions.¹ As this program targets adjuncts and individuals transition to college teaching from other fields, it supports the demand for non-traditional, part-time instructors.

In June 2017, we hosted four focus group comprised of UMBC graduate students, university faculty, administrators and faculty development, and community college faculty. Feedback from this session helped inform the program concept and validated the scientific literature in teaching and learning. The focus groups supported the development of this program and believed there is a market for this certificate. Their recommendations include that we emphasize UMBC's focus on inclusive excellence in our marketing materials, as this will be a differentiator in the market. Part of the marketing strategy will be to target individuals transitioning from other sectors to academia, who will benefit from exposure to the content of the certificate. Other target market will be recent graduates from graduate programs who are looking for an additional credential to make their resume more attractive.

Reasonableness of Program Duplication: Since Learning Science is an emerging field, we were unable to find any duplicates of this program in Maryland.

¹ <https://www.bls.gov/ooh/education-training-and-library/postsecondary-teachers.htm#tab-6>

Morgan State University does offer an online Master's program in Community College Administration & Instruction. However, the coursework is geared more towards developing professionals interested in community college administration and leadership and includes coursework like "Leadership and Administration of Community Colleges" and "Community College Finance and Budgeting". The UMBC certificate will not be targeted towards those looking for a career in higher education administration, but instead will focus on classroom instruction at both four-year and community colleges or other learning institutions, such as UMBC Training Centers. Coppin State University offers a Master's in Adult and Continuing Education. However, the program has a different focus with concentrations in Administration and Supervision, Gerontology, and Family Counseling. UMUC offers a Master's in Learning Design and Technology. While the program does touch upon learning science, the target audience relates to training and technical assistance within the workplace.

Relevance to High-demand Programs at Historically Black Institutions (HBIs): As mentioned, two of the HBIs (Morgan State and Coppin State) have a program that, upon first glance, may seem similar to the PMC, but after a review of the curriculum, it is clear that these are distinct programs with a different target audience from the PMC. We believe the new PMC should have minimal impact on enrollment at these institutions, as the program enrollment will draw from students whose interest is in a program based in learning science with the primary focus on teaching college students.

Relevance to the support of the uniqueness and identity of Historically Black Institutions (HBIs)

Offering this PMC at should not have any potential impact on the uniqueness and institutional identities and mission of the HBIs. This unique program does not overlap offerings at the HBIs.

Adequacy of Curriculum Design, Program Modality, and Related Learning Outcomes: The program is built on the foundation of empirical evidence for best practices and follows the scholarship of teaching-learning literature that emphasizes a student-centered approach to optimize opportunities for learning to occur. The program of student is based in learning science. The UMBC brand of diversity, inclusion and student engagement is a common thread throughout the program and is foundational to each course offering.

The program was developed under the leadership of Dr. Eileen O'Brien. Dr. O'Brien is a full-time faculty member in the Department of Psychology, is a Senior Lecturer and is the Undergraduate Program Director for Psychology. She is an Associate member of the Graduate Faculty and has been a member of numerous Masters Theses and Dissertations in the department. She joined

the department of Psychology at the University of Maryland, Baltimore County in 2003 and has been a Course Redesign Fellow in the University System of Maryland. Awarded the 2015 University System of Maryland Board of Regents' Faculty Award for Excellence in Teaching, Dr. O'Brien maintains associate faculty membership in the Gender and Women's Studies department teaching cross-listed courses in Gender and Psychology, and teaches varied courses in family and child psychology. She administers the Psychology Teaching Fellowship program in the graduate program. Dr. O'Brien has also led several Scholarship of Teaching and Learning workshops related to pedagogical innovation. She worked with the UMBC Faculty Development Center to create the Faculty Learning Communities program, which brings faculty together for regular discussions of topics related to teaching and learning, such as learning outcomes and assessment, diversity immersion, and communication in the classroom.

The PMC consists of five courses. The courses and educational objectives for the PMC emerged from literature, a review of other programs, and four unique focus groups composed of UMBC graduate students, university faculty, administrators and faculty development, and community college faculty. Qualitative responses across focus groups led to the development of the following educational objectives.

Educational Objectives: At the completion of the certificate program students will

1. Demonstrate an understanding of learning science and application to the diverse needs of college learners in the learning environment.
2. Apply evidenced based strategies and approaches to engage diverse college learners.
3. Implement best practices in curriculum and course development, the design of evaluation and assessment of learning, and in the application of pedagogical strategies.
4. Develop metacognitive skills and engage in self-reflective behaviors to determine the effectiveness of the teaching and learning environment.

The certificate has five required courses for a total of 15 credits. There is no additional elective credit. This coursework does not overlap with other courses at UMBC. Coursework in the existing Instructional Systems Development (ISD) Master's program was explored, but the ISD program's focus and approach to learning is as it applies to talent development and workplace needs assessment, not higher education.

The program will be offered online in both asynchronous and synchronous formats depending upon content. Blackboard Collaborate will provide the platform for all coursework.

Required Courses (15 credits)

PSYC 501: Applied Learning Science (3 credits)

This course will provide an emphasis on the understanding and application of learning research and the cognitive-psychological, social-psychological, and cultural-psychological foundations of human learning. Students will examine the characteristics of college learners and design of successful learning environments that respond to the changing patterns of college learners. Students will secure QM certification in applying the QM Rubric as part of this course.

PSYC 502: Best Practices in College Teaching (3 credits)

This course will examine that art of culturally responsive teaching and the use of varied pedagogical strategies, best practices, and implementation of these practices in the classroom. Students will explore the components involved in engaging diverse college learners, managing behaviors, reaching students with motivation strategies, ensuring adherence to policies, and designing courses using innovative practices.

PSYC 503: Assessing College-Level Learning (3 credits)

This course will explore culturally responsive teaching as it applies to the evaluation and assessment of college learning. Emphasis will be placed on multimethod approaches to capture learning both qualitatively and quantitatively. The application of the scholarship of teaching and learning will be emphasized and student learning outcome assessment will be highlighted as they inform quality curriculum.

PSYC 504A: College Teaching Practicum (3 credits)

Students will be in teaching placements in their geographical area. Concomitant course PSYC 504B will provide support and instruction online. Practicum activities will involve observation and critique of instruction in higher education settings. This course will require the demonstration of culturally responsive teaching in higher education and applied integration of learning science, best practices in teaching and learning measurement, professional collaboration, and self-reflective assessment. A professional teaching portfolio will be designed throughout the semester. This capstone course requires integration and synthesis of PSYC 501, 502, and 503 and active enrollment in PSYC 504B.

The Graduate Program Director and the student will work collaboratively to identify a college classroom appropriate for the practicum. The course teaching practicum will be secured by the student and approved by the faculty in PSYC 504A. Since this program is online, student geographical area will dictate the availability of a practicum. In general, the guidelines for placement require either a community college or four-year colleges, either comprehensive or research universities. Students who are requesting UMBC course placement will need to

explore relevant departments and availability. UMBC placement is not guaranteed. Assistance will be provided by faculty to work with placement negotiations, but similar to other professional programs, the student will take the lead on this negotiation with final approval from PSYC 504A faculty.

PSYC 504B: College Teaching Seminar (3 credits)

This course is interrelated to PSYC 504A, which is a 3 credit practicum in a college classroom. This course will require the demonstration of culturally responsive teaching in higher education and applied integration of learning science, best practices in teaching and learning measurement, professional collaboration, and self-reflective assessment. A professional teaching portfolio will be designed throughout the semester. This capstone course requires integration and synthesis of PSYC 501, 502, and 503 content and active enrollment in PSYC 504A.

Each course has specific student learning outcomes. Each time a course is taught, specific assignments with rubrics are used to assess the student's competency against the learning outcomes. The Graduate Program Director reviews the student's progress at the end of a course and this assessment is used to adjust the course content and teaching approaches.

All courses and faculty will be evaluated using the SCEEQ online evaluation protocol each semester. Midterm survey of satisfaction will also be used in each course to do any midcourse corrections.

Adequacy of faculty resources

The certificate is housed in UMBC's Department of Psychology. A Program Director will be responsible for oversight of the certificate. The Program Director will formally report to the Chair of the Department of Psychology and will work closely with the Graduate Program Director for Psychology.

The program is being designed by a current faculty member in the Department of Psychology, Dr. Eileen O'Brien. Dr. O'Brien, whose background and accomplishments are highlighted above in the section on curriculum design, will also serve as the program director and as a faculty member in the program. She will teach the **PSYC 501: Applied Learning Science, PSYC 504A: College Teaching Practicum, and the PSYC 504B: College Teaching Seminar** courses, a total of nine of the 15 credits (60%) in the certificate. Her work with Quality Matters and years of college teaching will serve well to provide support to students entering into this career. The two remaining courses will be taught by adjunct faculty members that will be properly vetted

by Dr. O'Brien, the Graduate School, and the Department of Psychology. The adjunct faculty will have the qualifications and credentials as appropriate to the field. The faculty in the program will have access to workshops and trainings offered through UMBC's Faculty Development Center and Instructional Technology office.

Adequacy of library resources

Students in the program will have access to the Albin O. Kuhn Library at UMBC. Lynda Aldana, UMBC's Associate Director for Technical Services & Library IT Services, has reviewed this proposal and advised us that our budget of \$2,000 a year with a 6% annual increase is sufficient to cover any costs.

Adequacy of physical facilities, infrastructure and instructional equipment

As an online program, the certificate does not require any special facilities, labs, equipment, or classroom space.

Adequacy of financial resources with documentation

The program will be self-supported through tuition revenue and will require no new state funds. A detailed 5-year budget is provided.

Adequacy of Provisions for Evaluation of Program

The program will be subject to the same evaluation requirements at the other Department of Psychology graduate programs. All students complete course evaluations at the end of each course. The results of these evaluations are provided to the department chair.

Consistency with the State's Minority Student Achievement Goals

Inclusive excellence is a hallmark of UMBC. The University is one of the most diverse public research universities in the nation, with a minority enrollment of 47%. UMBC's commitment to cultural and ethnic diversity is referenced in the University mission statement.

The State has a goal of increasing minority student access and success. Since 2012 UMBC has taken steps to continue deepening its commitment to diversity as one of its core principles guiding the recruitment and retention of faculty, staff, and students. Diversity is defined at UMBC in its fullest scope, embracing not only racial and ethnic groups and individuals who are or have been underrepresented in higher education, but also including religious affiliation, sexual orientation and gender identity, disability, foreign nationality, non-traditional student status, and other important characteristics. This programs aims to market the certificate program to underserved areas, securing success services through UMBCs learning resources

center, and referring students to student disability services so that optimization of learning for all individuals can occur.

Relationship to Low Productivity Programs Identified by the Commission

This is not applicable.

Adequacy of Distance Education Programs

UMBC has the infrastructure, faculty, and resources to provide a high-quality distance education program. UMBC is a member of both the Online Learning Consortium, a collaborative community of higher education leaders dedicated to advancing quality digital teaching and learning experiences, and Quality Matters, an international organization that is recognized as a leader in quality assurance for online education.

Online learning tools provided by UMBC include the Blackboard learning management system, a web-based conferencing and collaboration tool called Collaborate, and a screencast software called TechSmith Relay, a screencast software. The Division of Information Technology Instructional Technology team regularly offers faculty workshops and trainings on how to incorporate technology into classes. The Instructional Technology team is available for individual faculty consultations.

UMBC ensures that online courses are accessible for individuals with disabilities. The Office of Accessibility & Disability Services (ADS) is the UMBC department designated to secure accessibility support for technologies used at UMBC. A blind faculty member or student can use the JAWS screen reader to interact with and complete various tasks in Blackboard Learn including submitting an assignment, taking a test, building content and grading students.

All online programs are subject to the same systems of governance and academic oversight as face-to-face programs. The courses in the certificate were evaluated through the Quality Matters Higher Education Rubric to ensure that they met the same rigor and standards expected from a face-to-face course.

Appendix A: Projected Budget for UMBC's proposed PMC in College Teaching and Learning Science

TABLE 1: RESOURCES					
Resources Categories	FY20	FY21	FY22	FY23	FY24
1. Reallocated Funds ¹	49,216	0	0	0	0
2. Tuition Revenue ² (c+g below)	88,965	162,905	228,617	289,483	320,419
a. #F.T Students ³	0	0	0	0	0
b. Annual Tuition Rate	N/A	N/A	N/A	N/A	N/A
c. Annual Full Time Tuition Revenue (a x b)	N/A	N/A	N/A	N/A	N/A
d. # Part Time Students ⁴	15	30	42	52	57
e. Credit Hour Rate	659	679	699	720	742
f. Annual Credit Hours	135	240	327	402	432
g. Total Part Time Tuition Revenue (e x f)	88,965	162,905	228,617	289,483	320,419
3. Grants, Contracts, & Other External	0	0	0	0	0

¹ The Division of Professional Studies will provide start-up funding to supplement the program during its first year.

² This assumes a 3% tuition increase annually.

³ As this is a professional program, the students will be part-time.

⁴ This includes both new and continuing students.

Appendix A: Projected Budget for UMBC's proposed PMC in College Teaching and Learning Science

Sources					
4. Other Sources	0	0	0	0	0
TOTAL (Add 1 - 4)	88,965	162,905	228,617	289,483	320,419

TABLE 2: EXPENDITURES					
Expenditure Categories	FY20	FY21	FY22	FY23	FY24
1. Total Faculty Expenses (b + c below)	79,440 ⁵	81,823	84,278	86,806	89,410
a. # FTE	.5	.5	.5	.5	.5
b. Total Salary	64,140	66,064	68,046	70,088	72,190
c. Total Benefits	15,300	15,759	16,232	16,719	17,220
2. Total Administrative Staff Expenses (b + c below)	13,345 ⁶	23,724	32,324	39,738	42,703
a. # FTE	.125	.22	.3	.37	.4
b. Total Salary	9,959	17,704	24,122	29,625	31,872
c. Total Benefits	3,386	6,020	8,202	10,113	10,831

⁵ Program faculty include a 50% Program Director and adjunct faculty.

⁶ The cost of Administration and Support staff salaries for UMBC's professional programs are shared by all professional programs. These expenses are an estimate of this program's share of the administrative and support staff's time.

Appendix A: Projected Budget for UMBC's proposed PMC in College Teaching and Learning Science

3. Total Support Staff Expenses (b + c below)	0	0	0	0	0
a. # FTE	0	0	0	0	0
b. Total Salary	0	0	0	0	0
c. Total Benefits	0	0	0	0	0
4. Equipment ⁷	3,000	1,000	1,000	1,000	1,000
5. Library	2,000	2,120	2,247	2,382	2,525
6. New or Renovated Space	0	0	0	0	0
7. Other Expenses ⁸	40,396	42,586	49,605	55,451	58,151
TOTAL (Add 1 - 7)	138,181	151,253	169,455	185,377	193,789

⁷ This includes computing needs for faculty.

⁸ Other expenses includes marketing costs, indirect costs, funding for conferences and professional development, and travel.