



Establish a Post-Baccalaureate Certificate in Integrated Technology in Education (PCC Log #17074)

PRESENTED BY Dylan Roby, Chair, Senate Programs, Curricula, & Courses Committee

REVIEW DATES SEC – April 23, 2018 | SENATE – May 9, 2018

VOTING METHOD In a single vote

RELEVANT POLICY/DOCUMENT N/A

NECESSARY APPROVALS Senate, President, Chancellor, and Maryland Higher Education Commission

ISSUE

The Department of Teaching and Learning, Policy and Leadership within the College of Education proposes to establish a 12-credit Post-Baccalaureate Certificate in Integrated Technology in Education. The target audience for the certificate program will be educators who are currently certified in other content areas and have an interest in developing the pedagogical and theoretical knowledge needed to effectively integrate technology into their professional lives.

The curriculum will consist of four three-credit courses for twelve credits:

- TLPL600: Learning with Technology
- TLPL602: Foundations of Technology in Education
- TLPL603: Data-Driven Decision Making in Schools and Classrooms
- TLPL605: Social, Cultural & Ethical Dimensions of Teaching and Learning with Technology

As a result of this program, teachers will more effectively use technology in their professional lives. They will be equipped to introduce technology into their classrooms in safe, ethical, and culturally relevant ways. They will better integrate ideas of computational thinking into their instruction, and they will be able to collect, analyze, and make decisions based on data from their classrooms. Each of these goals aligns with the Standards for Educators devised by the International Society for Technology in Education.

This proposal was approved by the Graduate School Programs, Curricula, and Courses committee on April 6, 2018, and was approved by the Senate Programs, Curricula, and Courses committee on April 6, 2018.

RECOMMENDATION(S)

The Senate Committee on Programs, Curricula, and Courses recommends that the Senate approve this new certificate program.

COMMITTEE WORK

The committee considered this proposal at its meeting on April 6, 2018. David Weintrop, Assistant Professor in the Department of Teaching and Learning, Policy and Leadership, presented the proposal. The proposal was unanimously approved by the committee.

ALTERNATIVES

The Senate could decline to approve this new certificate program.

RISKS

If the Senate declines to approve this certificate program, the university will lose an opportunity to provide professional development in technology integration for teachers across the K-12 spectrum. The need to include technology education across the curriculum is essential for preparing a technologically literate citizenry who can make informed decisions in our increasingly digital world.

FINANCIAL IMPLICATIONS

There are no significant financial implications with this proposal as the department currently has the resources and infrastructure to accommodate the new program.

**University of Maryland PCC
Program/Curriculum/Unit Proposal**

PCC Log No: 17074

Program: Post-Baccalaureate Certificate in Integrated Technology in Education

Department/Unit: Teaching and Learning, Policy and Leadership

College/School: College of Education

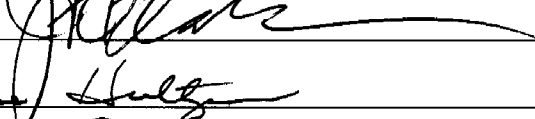
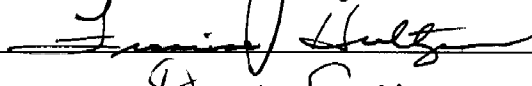


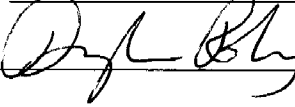
Proposal Contact Person (with email): David Weintrop (weintrop@umd.edu)

Type of Action (check one):

- Curriculum change (includes modifying minors, concentrations/specializations and creating informal specializations)
- Curriculum change is for an LEP Program
- Rename a program or formal Area of Concentration
- Establish/Discontinue a formal Area of Concentration
- Other:
- Establish a new academic degree/certificate program
- Create an online version of an existing program
- Establish a new minor
- Suspend/Discontinue a degree/certificate program
- Establish a new Master or Certificate of Professional Studies program
- New Professional Studies program will be administered by Office of Extended Studies

Italics indicate that the proposal must be presented to the full University Senate for consideration.

Approval Signatures - Please print name, sign, and date. For proposals requiring multiple unit approvals, please use additional cover sheet(s).

1. Department Committee Chair  2/13/18
2. Department Chair  2/13/18
3. College/School PCC Chair  2/15/18
4. Dean  Jennifer King Rice 3/8/18
5. Dean of the Graduate School (if required) _____
6. Chair, Senate PCC Dylan Roby  4/6/18
7. University Senate Chair (if required) _____
8. Senior Vice President and Provost _____

Instructions:

When approved by the dean of the college or school, please send the proposal and signed form to the Office of the Associate Provost for Academic Planning and Programs, 1119 Main Administration Building, Campus-5031, **and** email the proposal document as an MSWord attachment to pcc-submissions@umd.edu.

Summary of Proposed Action (use additional sheet if necessary):

The Department of Teaching and Learning, Policy and Leadership seeks to create a new 12-credit, post-baccalaureate certificate in Integrated Technology in Education. Please see the attached proposal for more.

Unit Code(s) (to be entered by the Office of Academic Planning and Programs):

In order to complete this form, you will need to copy this template to your own document, then complete, print, and submit this proposal with the PCC Cover Sheet

Program: Post-Baccalaureate Certificate, Integrated Technology in Education

Date of Proposal: February 20, 2018

Start Term for New Program: Fall 2018

The university has an established means of developing "professional" certificates and master's degrees intended as credit-bearing awards for professionals seeking additional training. New iterations of Professional Studies programs require approval from the Chancellor, but do not require review by the Maryland Higher Education Commission. If you are considering a new Master or Certificate of Professional Studies, we encourage you to first explore the idea with the Office of Extended Studies, which can help you determine the market demand for the program, assist you with the proposal process, and provide administrative services for the program. The following prompts are based on academic policies for programs as well as questions frequently asked by review committees. Please feel free to add additional information at the end of this document or in a separate appendix.

Purpose and Need

1. Describe the program and explain why the institution should offer it.

The Department of Teaching and Learning, Policy and Leadership (TLPL) is proposing a new Post-Baccalaureate Certificate (PBC) in Integrated Technology in Education. The purpose of this certificate is to offer professional development to educators on the ways technology can be used to enhance learning across K-12 classrooms. The target participants will be educators who are currently certified in other content areas and have an interest in developing the pedagogical and theoretical knowledge needed to effectively integrate technology into their professional lives, both within and beyond the classroom. The four-course sequence will prepare educators to incorporate technology into their own teaching practice and assist other educators in utilizing technology to improve the teaching and learning process. This program is intended for teachers across the K-12 spectrum and across disciplines with differing levels of prior technology and computing experience. The courses have been designed to allow participants to customize the coursework to meet the specific needs of their classrooms.

The course sequence will consist of four (4) courses (12 credits) that are essential in order to effectively introduce technology into their classrooms and schools. These four courses are designed specifically for this program, thus an emphasis throughout the courses is placed on making materials applicable to the immediate needs of the educators who enroll in the program. The courses will be offered to cohorts of teachers, with a maximum of 28 teachers per cohort. Our hope is to start the program either in the Summer II or Fall semester of 2018, depending on when the program receives approval. The program consists of two face-to-face courses and two online courses.

Upon completion, the participants will receive a Post-Baccalaureate Certificate in Integrated Technology in Education from the University of Maryland. Completers will also have the option of transferring these credits toward a Master's in Education -- Teacher Leadership Emphasis.

Rationale

Technology is changing our world. In order to prepare learners for the computational futures that await them, it is essential that today's teachers are able to incorporate technology and the big ideas of computing into their instruction. Multiple organizations and standards bodies have called for the integration of technology and computational thinking into curricula and pedagogy across the grades and subjects. For example, the Maryland College and Career-ready Standards, the Next Generation Science Standards, and the National Curriculum Standards for Social Studies all incorporate these ideas into their materials. The growing recognition of the broad applicability of technology skills can be seen in the National Science Foundation's seeking to fund projects designed to "foster lifelong learning with and through technology, particularly in preparation for and within the context of the work setting." This reality can be seen in the changing

demands of the modern workforce. Within the state of Maryland, computing-related jobs are projected to grow by 12% over the next decade. The need to include technology education across the curriculum is essential for preparing a technologically literate citizenry who can make informed decisions in our increasingly digital world. In response to this growing need, Maryland is introducing a statewide task force to address the challenges facing Maryland's talent pipeline while also identifying innovative and sustainable ways to promote gender and minority equity in the STEM and IT workforce. Achieving this goal begins with preparing teachers to bring these concepts, practices, and tools into their classrooms. As a land-grant institution, the University of Maryland, College Park is positioned well to respond to this call through the development of programs designed to prepare educators to address these challenges.

The proposed PBC program would be desirable for teachers who have not already been exposed to formal technological or computational thinking content and pedagogy and seek to:

- (1) More effectively use technology in their professional lives
- (2) Better integrate ideas of computational thinking into their instruction
- (3) Prepare learners for the computational future that await them

Additionally, the program would also be helpful for those teachers who may already integrate computing and technology into their classrooms. These teachers would benefit by enhancing their understanding of the theoretical underpinning of technology in education, gaining exposure to new tools and applications of technology in the classrooms, and learning new pedagogical strategies and culturally and ethically responsible ways to bring computing into their classrooms. Finally, this certificate will meet the needs of individuals who are interested in the field of integrated technology in education but are not working in a public school system. This includes teachers in community programs for children and adults, as well as those contracted to teach adults foundational technological skills for business or government institutions domestically and internationally.

The aforementioned need for computationally ready citizens across the state of Maryland, along with the growing roles that computing and technology play in our society, underscores the need for school districts and educators to be prepared to bring technology and the big ideas of computing into their classrooms. The proposed program is designed to accomplish this goal, and in turn, respond to the Governor's call to position Maryland's teachers and schools at the vanguard of the push to bring computing to all schools and all students.

2. Provide evidence of student interest and indicate the size of the program at steady state.

Currently, there are numerous Master's programs related to educational technologies throughout the state of Maryland; however, only two schools have post-baccalaureate certificates such as the one proposed here: University of Maryland, Baltimore County (UMBC) and University of Maryland, University College (UMUC). The program at UMBC offers three certificates related to instructional systems development, however, these programs are geared towards instructional designers and multimedia developers, not the in-service teachers our program serves. The UMUC certificate program is offered entirely online and thus is not able to provide the face-to-face instruction and hands-on experiences that are essential for developing pedagogy intended for the classroom. The proposed program at University of Maryland is being developed at the request of the Prince George's Public School District, highlighting the need for such a certificate and the lack of current satisfactory alternatives. Further, these two existing certificate programs are open enrollment programs, as such, they are not easily accessible for closed cohort programs with school districts in the Washington, DC metro area that aim to have programs geared towards their specific technological needs. The proposed program here at the University of Maryland, College Park, would address this much-needed niche.

The intended size of the program is 28 students per cohort.

Characteristics of the Proposed Program

3. Provide a full catalog description of the proposed program.

The Post-Baccalaureate Certificate (PBC) in Integrated Technology in Education is intended to help educators better incorporate technology into their practice. The curriculum is designed for educators who are currently certified in other

content areas and have an interest in developing the pedagogical and theoretical knowledge needed to effectively integrate technology into their professional lives, both within and beyond the classroom. The four-course sequence will prepare educators to incorporate technology into their own teaching practice and assist other educators in utilizing technology to improve the teaching and learning process. This program is intended for teachers across the K-12 spectrum and across disciplines with differing levels of prior technology and computing experience. The courses have been designed to allow participants to customize the coursework to meet the specific needs of their classrooms.

4. List the educational objectives of the program.

The educational goals of this program are to prepare educators to:

- (1) More effectively use technology in their professional lives
- (2) Better integrate ideas of computational thinking into their instruction
- (3) Prepare teachers to collect, analyze, and make decisions based on data from their classrooms
- (4) Equip teachers to introduce technology into their classrooms in safe, ethical, and culturally relevant ways
- (5) Empower teachers to prepare their students for the computational future that await them

A more concrete list of student learning outcomes for the program are listed in question 10.

5. Describe any selective admissions policy or special criteria for students selecting this field of study. Please review the basic requirements of degree programs or certificate programs.

Students applying for the Post-Baccalaureate Certificate in Integrated Technology in Education must first indicate interest to the coordinator who will then vet the applicants for eligibility. Applicants will then submit an application to the Graduate School of the University of Maryland, where they must meet all requirements of the Graduate School, including:

- A minimum GPA of 3.0 (4.0 scale) or graduate GPA of 3.0 (4.0 scale). Applicants with international credentials must submit in the original language those academic records that are not written in English. Such credentials must be accompanied by an accurate and literal English translation.
- Three letters of recommendation that address the applicant's leadership potential, relevant experience, and ability to succeed in the program.
- A statement of goals and objectives for pursuing graduate study. The statement must indicate both the applicant's practical experience as well as professional goals.
- Where applicable, a TOEFL score of 100 or higher or IELTS combined score of 7.0 or higher.

Students may apply some or all of the 12 credits earned for the Post-Baccalaureate Certificate towards a Master's degree, with the approval of the student's advisor and the program. However, acceptance to begin the course of study for the Post-Baccalaureate Certificate will not automatically guarantee admission to a degree program. Students will need to apply to and meet all requirements of the Graduate School and program to be accepted to the degree program.

6. Course requirements. Indicate the course requirements with course numbers, titles and credits. In an appendix, provide the course catalog information (credits, description, prerequisites, etc.) for all of the courses. Note that suffixed "selected" or "special" topics courses should be avoided. If suffixed-selected or special topics courses are offered regularly in the new program, you should make the courses permanent.

Please note: new courses or modifications to courses need to be submitted through the Testudo Curriculum Management system and will need to follow the normal VPAC course proposal review process. You may submit individual course changes to VPAC concurrently with the PCC proposal; however, the course changes may be held depending on the outcome of the PCC proposal.

This program is comprised of four courses, all of which are required:

TLPL 602: Foundations of Technology in Education	3 credits
TLPL 600: Teaching and Learning with Technology	3 credits
TLPL 603: Data-driven Decision Making in Schools and Classrooms	3 credits
TLPL 605: Social, Cultural & Ethical Dimensions of Teaching and Learning with Technology	3 credits

7. Summarize the factors that were considered in developing the proposed curriculum (such as recommendations of advisory or other groups, articulated workforce needs, standards set by disciplinary associations or specialized-accrediting groups, etc.).

This curriculum was developed based on the expertise of the faculty informed both by their research as well as experiences creating similar programs at other institutions. Additionally, the designers of the program met with school district stakeholders in order to ensure the proposed curriculum met the needs of their district. Revisions to the proposed curriculum were made based on the feedback we received.

8. Sample plan. Provide a term by term sample plan that shows how a typical student would progress through the program to completion. It should be clear the length of time it will take for a typical student to graduate.

The program is designed so that a student will be able to complete in a single academic year.

Semester 1	Summer II Semester	TLPL 602: Foundations of Technology in Education
Semester 2	Fall Semester	TLPL 600: Teaching and Learning with Technology
Semester 3	Spring Semester	TLPL 603: Data-driven Decision Making in Schools and Classrooms
Semester 4	Summer I Semester	TLPL 605: Social, Cultural & Ethical Dimensions of Teaching and Learning with Technology

9. Identify specific actions and strategies that will be utilized to recruit and retain a diverse student body.

Recruitment will be a collaborative effort between the College of Education and the district partners, at both the building and central administrative levels. Since attracting a diverse student body is a priority of both institutions, every effort will be made to identify, recruit and cultivate participation of diverse candidates.

The University of Maryland is committed to recruiting and retaining a diverse student body. The university's accreditation by the Middle States Association of Colleges and Secondary Schools, the College of Education's accreditation by the Council for the Accreditation of Education Preparation (CAEP), and the Maryland State Department of Education ensure this commitment.

Student Learning Outcomes and Assessment

10. List the intended student learning outcomes.

After completing this program, participants will:

1. Understand how to use technology to support teaching and learning across K-12 contexts, including an understanding of the affordances and limits of technologies in the classroom.
2. Identify the different roles technology can play in education and have a knowledge of the breadth of technologies that can be used for teaching and learning.
3. Bring technology into their classrooms and assess its uses towards achieving specific learning goals.
4. Collect, analyze, and make decisions based on the data generated by students and peers.
5. Bring technology into their classrooms in responsible and safe ways while also preparing their students for responsible and informed uses of technology
6. Know how to use technology in their classrooms in equitable and inclusive ways and be able to support learners with differing levels of prior experience and coming from different cultural and socio-economic backgrounds.

The courses in the program are aligned to the ISTE Standards for Educators (<https://www.iste.org/standards/for-educators>) with care taken so that each of the seven dimensions of being a technologically empowered educator are addressed. Table 1 (below) highlights this mapping.

Table 1: The ISTE standards for educators and how they align to this program.

ISTE Standard for Educators Role	Courses the Standard is Addressed
1. Learner a. Apply and reflect on pedagogy with tech. b. Participate in learning communities c. Stay current with research	Preparing teachers for this role is focused on throughout the 4-course sequence, but particularly emphasized in TLPL 602 and 600.
2. Leader a. Advance a vision for tech. in education b. Advocate equitable access c. Model the use of tech. in education	Helping teachers form a vision of tech. in education is a focus of TLPL 602, while TLPL 605 has weeks dedicated to equity and access. TLPL 600 will prepare teachers to model and share tech. in education strategies.
3. Citizen a. Support socially responsible tech. use b. Promote digital literacy c. Teach safe, ethical, legal digital practices d. Educator about personal data and privacy	TLPL 605 addresses many of these roles, particularly 3a, 3c, and 3d. Digital literacy is discussed in TLPL 602.
4. Collaborator a. Dedicate time to teacher peer learning b. Co-learn with students c. Collaborative tools d. Demonstrate cultural competency	Throughout the courses, teachers will be asked to become experts in a specific technology or idea and share it with peers, preparing them for this role. There are also weeks dedicated to technology-supported collaborative learning.
5. Designer a. Create personalized learning b. Authentic learning activities c. apply instructional design principles	The theoretical foundation to achieve these outcomes are laid in TLPL 602 with TLPL 600 providing teachers the chance to try out designs and get feedback from peers and instructors.
6. Facilitator a. Students take ownership over learning b. Manage the use of tech. for learning c. Design and computational thinking d. Nurture creativity	Developing teachers' abilities to create effective and engaging learning environments is a goal throughout the program, with TLPL 600 providing the opportunity to focus on developing concrete practices for the classroom.
7. Analyst a. Create varied forms of performance tasks b. Develop tech. mediated assessments c. Use data to inform your teaching	TLPL 603 is particularly focused on standard 7c while issues related to assessment are touched on in TLPL 602 and further investigated and applied in TLPL 600

11. Include a general assessment plan for the learning outcomes.

Various assessments will be used across the four courses to ensure the curriculum is achieve the stated objectives. Below we list the major assessments that will be given and the courses/assignment where they fit within the 4-course sequence.

- Student-designed unit plans that integrate technology, focusing on the appropriateness of the chosen tool(s) for the stated learning goals and reflections on the implementations of those (the Technology Integration Project in TLPL 600).
- Student-designed unit plans that attend specifically to social, cultural, and ethical aspects of bringing technology into the classroom (the Unit Plan Project in TLPL 605).
- Case studies on technology integration in varied educational settings (the Technology Deep-dive and Final Projects in TLPL 602).
- Literature reviews of key topics on technology integration theory and pedagogy (the Book Review assignment in TLPL 602).
- Designs of data collection plans and intended analytic approaches (the Data Collection project in TLPL 603).
- Technology-mediated content assessments (the Assessing Learning with Technology project in TLPL 600).
- Short reaction papers to course readings demonstrating students' understandings, critiques, and applications for technology the classroom (assessed throughout the 4-course sequence).

Organization

12. Oversight Committee. The committee should be composed of a regular member of the graduate faculty from the "core" area who will serve as the Graduate Director, a second member of the graduate faculty, a representative from the Graduate School, and an administrative manager. Both the Graduate Director and second faculty member must have the approval of their respective department chairs. This committee will provide the academic and administrative oversight for the duration of the degree or certificate program.

Graduate Director: Diane Jass Ketelhut
 Second Graduate Representative: David Weintrop
 Representative from the Graduate School: N/A
 Administrative Manager: TLPL Staff member

13. Indicate who will provide the academic coordination for the program.

Joy Jones

14. Indicate who will provide the administrative coordination for the program.

Stephanie Goodwin

Faculty

Faculty selection and appointments are made by the academic unit. The faculty may include Professional Track faculty, retired faculty, and professionals in the field. All faculty must be approved by the Dean of the Graduate School to teach. UMD faculty who in teach in the program will be compensated using overloads. A faculty member can only be paid for teaching courses above their regular appointment if s/he has met the requirements of the position and the supervisor has approved the overload. The overload is submitted via PHR. Teaching on an overload basis requires approval each year. Faculty members who buy out of an on-load course (e.g. with research grant funds) would have to consult with a college and agency official to determine if they can be paid for teaching an overload course. For complete information regarding the UMD overload policy, visit: <http://www.provost.umd.edu/pers-bud/Forms/oloadguide2.html>. Additionally, programs must follow Maryland Higher Education Commission Code of Maryland (COMAR) regulations. In particular, COMAR 13B.02.03.11 requires that at least 50% of the total semester credit hours within the proposed program be taught by full-time faculty. For off-campus programs, COMAR 13B.02.03.20 states that at least 1/3 of the classes offered in an off-campus program shall be taught by full-time faculty of the parent institution.

15. List the faculty who will teach in the program. Include their titles, credentials, and courses they may teach for the program.

There are currently three tenured/tenure-track faculty prepared to teach courses in this program:

Dr. Diane Jass Ketelhut, Associate Professor, Department of Teaching & Learning, Policy & Leadership
Dr. Tammy Clegg, Assistant Professor, Department of Teaching & Learning, Policy & Leadership
Dr. David Weintrop, Assistant Professor, Department of Teaching & Learning, Policy & Leadership

All three faculty are capable of teaching any of the four courses in the sequence. The initial plan is for Dr. Ketelhut to teach TLPL 600 and Dr. Weintrop to teach TLPL 602, with the third and fourth courses being taught by an adjunct or part-time faculty to be determined.

Further, we acknowledge that the Maryland Code of Regulations (COMAR 13B.02.03.20) requires at least 1/3 of the classes offered in an off-campus program be taught by full-time faculty of the parent institution. In addition, adjunct and part-time faculty shall:

- (1) Possess the same or equivalent qualifications as the full-time faculty of the institution; and
- (2) Be approved by the academic unit through which the credit is offered.

Program Delivery (If applicable)

For Online Delivery:

16. Discuss how courses will be taught using online technologies. Will courses be synchronous, asynchronous, or a combination of both? What technologies will be used to present material and evaluate the quality and authenticity of student work?

The coursework will be delivered synchronously and asynchronously by utilizing the tools in the Learning Management System (LMS), *Canvas* by Instructure. As new tools become available through web-based offerings or through research, those will also be incorporated. We acknowledge some fundamental differences between quality teaching in the online environment and in the face-to-face classroom. In particular, we will be addressing the course environment, pedagogy, and student participation in the following ways:

- Course environment
 - Creating course spaces that optimize participation, communication and ease of navigation, utilizing the DIT *Quality Assurance Checklist*.
 - Accessibility: Providing multiple means of representation, expression, and engagement, utilizing the accessibility checker in the Canvas tool bar text box editor, focusing on the 6 essential aspects of the online interface: Headings, Alternative text for images, Color, Descriptive links, Table headers and Video captions.
- Pedagogy
 - The key to learning for all students is to vary pedagogical approaches. Different students find their voice in different environments. Thus, these courses will make use of a broad set of tools and approaches, both synchronous and asynchronous.
 - Creating and maintaining a welcoming, accessible atmosphere simultaneously allows the instructor to differentiate instruction to meet student needs and preferences.
 - Instructors will work with the learning design team at DIT and ETS focusing on best practices when teaching in the online environment.
- Assessment
 - While it is ultimately the responsibility of the instructor to evaluate the quality and authenticity of student work, we will be using a tool to help in that effort. *Turnitin* is not only an originality checker but also has robust commenting and rubric features.
 - When submitting assignments, students will be required to sign the UMD honor pledge, stating that they did not receive any human assistance.
- The Online Student
 - Acknowledging that there are different expectations for the online student, we will prepare students for these unique challenges and opportunities through a required online tutorial (OSSO) the first week of classes.

- *Online Student Success Orientation (OSSO)* is chunked to maximize comprehension, with periodic quiz questions to ensure participation and understanding.

17. Provide evidence of faculty involvement in the development of the program and in the oversight of the program.

From the ground up, this program has been developed by faculty associated with the program along with input from our district partners. This includes both the face-to-face and online courses to be taught in this program. At the end of each year, the various stakeholders in the program (faculty, administrative coordinator, academic coordinator, and representative of the student body and our district partners) will convene to review the program. This review will include an analysis of student-submitted course evaluations along with reviewing the materials created and submitted by students over the course of the year. As part of this meeting, discussions will be held to decide what, if any, modifications will be made for the following year.

18. Discuss the resources available for training and supporting faculty in regard to instructional technology. Indicate any other unit or vendor that will be used to administer or deliver the program.

The online portion of this course will primarily utilize the tools in the Learning Management System (LMS), *Canvas* by Instructure. Faculty teaching in this program will have access to teacher development opportunities available across campus, including those offered as part of the Teaching and Learning Transformation Center.

19. Discuss how students will have reasonable and adequate access to the range of student support services (library materials, teacher interaction, advising, technical support) needed to support their learning activities. Also, discuss how the program will provide students with clear, complete, and timely information on the curriculum, technological competence and equipment needed for the program, admissions criteria, financial aid resources, and cost and payment policies.

Students enrolled in this program will have access to all the resources necessary in order to succeed in the program and make the most of the learning opportunity. At the outset of the program, students will go through a brief orientation (during class time) where they are introduced to the various resources they will have access to throughout the program. They will also be introduced to the program coordinator who will be the designated point person for students to contact if they have any questions or issues throughout the program. The coordinator will also serve as the point of contact for discussions related to financial aid and payment policy questions. The requirements for the program as well as the syllabi for the classes and admissions criteria will be available on the website for the program giving students insight into the expectations and requirements for the program.

20. Intellectual Property Rights: The proposal must clearly delineate ownership and usage rights for materials that may be developed for courses in the program.
<https://www.president.umd.edu/sites/president.umd.edu/files/documents/policies/IV-320A.pdf>.

This program will abide by the UMD intellectual property policy.

For Off-Campus Delivery:

21. Identify the location for the program offering and discuss the reason for offering the program in that location.

Given that this Post-Baccalaureate Certificate is intended to serve non-traditional students who otherwise would not be able to attend on-campus programs (e.g., full-time teachers), this program will be offered off-campus. As is the current standard and accepted practice, the Dean of the College of Education and the Chair of TLPL ensure student access to a full range of services (including advising, financial aid, and career services) and facilities (including library and information facilities and computer facilities, if needed).

22. Describe the method of instructional delivery, including online delivery, on-site faculty, and the mix of full-time and part-time instructors. Discuss the resources available for supporting faculty at the location.

Given the intention to follow a cohort model, we will coordinate with districts to tailor location and delivery strategies to fit with the needs of our cohort stakeholders. The expectation is that the two summer courses (TLPL 602 and TLPL 605) will be taught face-to-face with students at off-campus locations that are accessible to the students. As stated in question 15, the intention is for these two courses to be taught by fulltime faculty. The Fall and Spring courses will likely be taught online or as blended given the target population of in-service teachers and the existing time demands on their schedules. Care will be taken to ensure the off-campus locations have adequate resources, specifically, internet connectivity and the ability to project from a computer, beyond that, there are no special requirements for the program.

23. Describe the academic oversight, quality control, and evaluation of the off-campus program's effectiveness.

As stated above, at the end of each year, the various stakeholders in the program (faculty, administrative coordinator, academic coordinator, and representative of the student body, district partners, etc.) will convene to review the program. This review will include an analysis of student-submitted course evaluations along with reviewing the materials created and submitted by students over the course of the year. These materials will be gathered and tracked both within years and across years to ensure a consist level of excellence. This annual review will cover both online and face-to-face portions of the course. As part of this meeting, discussions will be held to decide what, if any, modifications will be made for the following year.

For Non-Standard Terms:

24. If the program will be offered in non-standard terms, describe the term structure and whether the Office of the Registrar and the Office of International Scholar and Student Services have been notified and support the proposal.

N/A

Other Issues

25. Are students in other programs permitted to enroll in courses in this program? Can students substitute courses from other institutions?

Yes, in special cases, students from outside this program will be allowed to enroll in the courses in this program. In the case where enough students from outside the PBC cohort wish to enroll in a course, we will create a second section of the course and teach the two versions in parallel. If not enough students are available to warrant a second section, students from outside of the program will not be able to enroll in the courses within the program in that year. Students will not be able to substitute courses from other institutions for the purpose of this PBC.

26. What are the protocols for students unwilling or unable to follow courses in sequence, e.g. would they have to wait for the next cycle or next cohort?

Students who are unwilling or unable to follow the courses in sequence will need to wait for the next cycle to resume their studies.

27. What is the exit strategy if the program proves not to be viable? How are canceled courses handled?

Through combination of advising and careful recruiting and marketing, we expect no student's progress to completion will be interrupted. If the program is terminated mid-year – on campus provisions will be made to ensure they can complete the certificate. If not enough students sign for the program in a given year, we will not offer certificate that year.

Resource Needs and Sources

28. Library resources required, to be determined in cooperation with the Libraries. Please contact your departmental/programmatic library liaison or Daniel Mack at dmack@umd.edu, Associate Dean of Collections, to request a library assessment that will be added as an appendix.

No specific library resources are needed for this program.

29. Discuss the adequacy of physical facilities, infrastructure and instructional equipment.

The courses for this program do not require any facilities beyond those commonly found in contemporary classrooms. Any specific technology to be used as part of instruction will be provided by the instructor.

30. Discuss the instructional resources (faculty, staff, and teaching assistants) that will be needed to cover new courses or needed additional sections of existing courses to be taught. Indicate the source of resources for covering these costs.

No additional instructional resources will be needed to offer the new courses.

31. Discuss the administrative and advising resources that will be needed for the program. Indicate the source of resources for covering these costs.

The administrative and advising resources for this program will be covered by the current faculty in the department of Teaching & Learning, Policy & Leadership (TLPL) within the College of Education. Should the program thrive and these resource prove to not be sufficient, additional faculty and/or staff will be brought on and paid for with the income generated by the program. Any hires made related to the program will be subject to departmental approval.

32. Use the Maryland Higher Education Commission (MHEC) commission financial tables to describe the program's financial plan for the next five years:
<https://docs.google.com/spreadsheets/d/1V6iSZG05edMitWP6CAOXjCoGO58Gf6VXxPaackfrhZ4/edit#gid=0>. Add these tables as attachments.

Table 2 Resources (FY July 1 – June 30)

Resources Categories	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
1. Reallocated Funds ¹	0	\$0	\$0	\$0	\$0
2. Tuition/ Fee Revenue ² (c+g below)	\$204,900	\$204,900	\$204,900	\$204,900	\$204,900
a. #F,T Students	\$-	\$0	\$0	\$0	\$0
b. Annual Tuition/ Fee Rate	na				
c. Annual Full Time Revenue (a x b)	\$-				
d. # Part Time Students	25	25	25	25	25
e. Credit Hour Rate	\$683	\$683	\$683	\$683	\$683
f. Annual Credit Hours	12	12	12	12	12
g. Total Part Time Revenue (d x e x f)	\$204,900	\$204,900	\$204,900	\$204,900	\$204,900
3. Grants, Contracts, & Other External Sources ³	\$-				
4. Other Sources	\$-				
TOTAL (Add 1-4)	\$204,900	\$204,900	\$204,900	\$204,900	\$204,900

Table 3: Expenditures and Revenues by Year (FY July 1 – June 30)

Expenditure Categories	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
1. Total Faculty Expenses (b + c below)	\$50,400	\$50,400	\$50,400	\$50,400	\$50,400
a. #FTE	0.25	0.25	0.25	0.25	0.25
b. Total Salary	\$40,000	\$40,000.00	\$40,000.00	\$40,000.00	\$40,000.00
c. Total Benefits	\$10,400	\$10,400	\$10,400	\$10,400	\$10,400
2. Total Administrative Staff Expenses (b + c below)	\$-				
a. #FTE	\$-				
b. Total Salary	\$-				
c. Total Benefits	\$-				
3. Total Support Staff expenses					
a. # FTE	\$-				
b. Total Salary	\$-				
c. Total Benefits	\$-				
4. Equipment	\$-				
5. Library	\$-				
6. New or Renovated Space	\$-				
7. Other Expenses	\$60,900	\$60,900	\$60,900	\$60,900	\$60,900



Appendix A: Course Summaries

This section provides a short description for the four courses associated with this program. The courses are listed in the order that students will take them. All four courses are required and substitutions will not be allowed. Additional information, including full syllabi are available upon request.

TLPL 602: Foundations of Technology in Education

This survey course will tackle both theoretical and practical dimensions of technology in education. It will serve as an introduction to technology and the impact the 'digital revolution' is having and will have on education. Examples will be drawn from multiple disciplines. We will discuss what is meant by technology and explore research into how the digital revolution and emergence of concepts such as "Computational Thinking" might be impacting our role as educators. We will think through the impact that technology is having on teacher practices, student learning and motivation, and learning across distance and time. Issues around equity will be explored. We will end with considering what learning and education might look like in the future, given what we have learned. Time will be spent in hands-on exploration of various media, some directly designed for education, and others more indirectly related. Discussion will be based on these experiences with the media, plus empirical literature, and insights from key players in this field.

After completing this course, you will have an understanding of the potential for the uses of technology for teaching and learning, identify the different roles technology can play, and be ready for a hands-on introduction to specific topics/tools/pedagogies related to teaching and learning with technology.

Through course readings, active participation in class discussions, online discussions and independent work, students will develop knowledge, skills and attitudes relating to:

- What is meant by "technology"
- Learning mediated by technology
- The impact of technology on teacher practices
- Exploring what empirical research tells us or fails to tell us relative to the impact of technology on education

TLPL 600: Teaching and Learning with Technology

This course provides a concrete, hands-on introduction to teaching and learning with technology. We will explore digital technology and its impact on learning and institutions. We will consider big ideas of the field as well as specific types of learning technologies and pedagogies for use in K-12 classrooms. We will discuss K-12 teaching methods that address the interdisciplinary nature of technology integration. The course will draw on class discussions, inquiry, instructional technology, and collaborative lab-based activities and prepare you to merge technology with your current teaching practice. Assessment with and of technology will also be explored.

Through course readings, active participation in class discussions, online discussions and independent work, students will develop knowledge, skills, and attitudes related to:

- Ways technology can be used to support classroom learning
- Identifying, evaluating, and adopting education technologies
- Design and pedagogical considerations for teaching with technology
- Identifying opportunities to integrate computational thinking into instruction
- Developing technology-enhanced lessons and curricula
- Assessments with technology

TLPL 603: Data-driven Decision Making in Schools and Classrooms

This course will equip educators to productively use the data that surrounds them. This includes data students generate that can be used to improve student learning outcomes as well as data generated by the classroom and school that can be used to improve pedagogy and classroom culture. After completing this course, students will be better able to collect, analyze, and make decisions based on the data generated by the students and peers.

Through course readings, active participation in class discussions, online discussions and independent work, students will develop knowledge, skills, and attitudes related to:

- How is data used in your classroom/school?
- Identify what data can/should be collected and how it can be used.
- Tools and strategies for making informed decisions with data.

-
- How to communicate with data and share outcomes of data analysis.
 - Discuss strategies for using data to improve classroom/learning outcomes.

TLPL 605: Social, Cultural & Ethical Dimensions of Teaching and Learning with Technology

This course situates technology in the classroom within a larger social and cultural context. Along with exploring social opportunities afforded by technology, this course will cover important social and cultural dimensions of technology, including equity, inclusion, ethical dimensions of technology, and questions of privacy and digital citizenship (for both teachers and students). After this course you will be prepared to bring technology into your classroom in responsible and safe ways while being able to take advantage of the new forms of interaction and communication made possible through technology.

Through course readings, active participation in class discussions, online discussions and independent work, students will develop knowledge, skills, and attitudes related to:

- How technology can support learning beyond the classroom.
- How technology can support collaboration and communication for learning.
- Communicating with technology, including the role of social media and online social practices and how they relate to teaching and learning.
- Privacy in online learning settings.
- District policies around technology and intellectual property.
- Responsible technology practices for educators, including legal and ethical aspects of educators' online activities.
- Equitable and inclusive teaching with technology.
- Ethical dimensions of technology in the classroom (teaching, copyright, plagiarism, Cyberbullying, etc.).
- How do you create technological learning environments for ALL learners (ideas of universal design for learning)?
- Teaching learners with limited access to technology outside the classroom.