UMBC UGC New Course Request: CMSC396 – Undergraduate Teaching Assistantship

Date Submitted: 11/1/2019  Proposed Effective Date: 1/1/2020

<table>
<thead>
<tr>
<th>Name</th>
<th>Email</th>
<th>Phone</th>
<th>Dept</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dept Chair</td>
<td>Jeremy Dixon</td>
<td><a href="mailto:jdixon@umbc.edu">jdixon@umbc.edu</a></td>
<td>5-8866</td>
</tr>
<tr>
<td>or UPD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Contact</td>
<td>Mohamed Younis</td>
<td><a href="mailto:younis@umbc.edu">younis@umbc.edu</a></td>
<td>5-3969</td>
</tr>
</tbody>
</table>

COURSE INFORMATION:

<table>
<thead>
<tr>
<th>Course Number(s)</th>
<th>CMSC396</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal Title</td>
<td>Undergraduate Teaching Assistantship</td>
</tr>
<tr>
<td>Transcript Title</td>
<td>Undergrad Teaching Assistant</td>
</tr>
<tr>
<td>Prerequisite</td>
<td>MATH 150 and CMSC 201 with a 3.0 GPA or higher and a “B” or better in the course for which the student will be a teaching assistant.</td>
</tr>
<tr>
<td># of Credits</td>
<td>1-3 (one credit per approximately three hours of work per week during the semester)</td>
</tr>
<tr>
<td>Repeateable for additional credit?</td>
<td>☑ Yes ☐ No</td>
</tr>
<tr>
<td>Max. Total Credits</td>
<td>8</td>
</tr>
</tbody>
</table>

PROPOSED CATALOG DESCRIPTION (Approximately 75 words in length. Please use full sentences.):

This service-learning course is designed for undergraduate teaching assistants in computer science courses. Activities can include assisting with in-class learning exercises, leading lab sessions, development and grading of class content and assignments, learning new pedagogical developments in computer science, holding office hours, and conducting review sessions. This course cannot count towards requirements of the major or minor programs of the Computer Science/Electrical Engineering Department. Successful completion of the course for which they will be a teaching assistant and permission of the instructor are required. A maximum of eight credits of CMSC 396 is allowed.

RATIONAL FOR NEW COURSE:

a) Why is there a need for this course at this time?
Almost all other departments at UMBC have a similar course that grants credits to their undergraduate teaching assistants (UTA). We have many UTAs who would benefit from this course.

b) How often is the course likely to be taught?
We will offer it every semester there is demand for it. Most likely, this will be Fall, Spring, and Summer.

c) How does this course fit into your department’s curriculum?
It will not count towards any major or minor programs in the Computer Science/Electrical Engineering department. It will be used primarily for two purposes: 1. To indicate departmental service on the student’s transcripts and 2. To provide additional upper-level credits to meet GEP requirements.

d) What primary student population will the course serve?
This course will primarily serve Sophomores, Juniors, and Seniors in the CMSC department.
e) Why is the course offered at the level (ie. 100, 200, 300, or 400 level) chosen?
The material builds on concepts from prior courses. Additionally, students are expected to provide thoughtfull explanation to students in a variety of ways. The UTA will be expected to grade, evaluate, and constructively criticize students in the course being assisted.

f) Explain the appropriateness of the recommended course preparation(s) and prerequisite(s).
This course requires different skills depending on the UTA experience. The prerequisite will be a minimum of a 3.0 GPA or higher and the student must have completed the course that they will be a UTA for.

g) Explain the reasoning behind the P/F or regular grading method
Students can take this course for a Pass/Fail only.

h) Provide a justification for the repeatability of the course.
Students often work as UTAs for multiple semesters, therefore, they should be able to earn multiple credits for this effort.

ATTACH COURSE SYLLABUS (mandatory):
CMSC 396: Undergraduate Teaching Assistantship

Prerequisites:
MATH 150 and CMSC 201 with a 3.0 GPA or higher and a “B” or better in the course for which the student will be a teaching assistant.

Instructor:
TBD

Course Description:
This service-learning course is designed for undergraduate teaching assistants in computer science courses. Activities can include assisting with in-class learning exercises, leading lab sessions, development and grading of class content and assignments, learning new pedagogical developments in computer science, holding office hours, and conducting review sessions. This course cannot count towards requirements of the major or minor programs of the Computer Science/Electrical Engineering Department. Successful completion of the course for which they will be a teaching assistant and permission of the instructor are required. A maximum of eight credits of CMSC 396 is allowed.

Credits:
One credit: approximately 30 hours over the semester assisting students and instructors (~3 hours per week)
Two credits: approximately 60 hours over the semester assisting students and instructors (~6 hours per week)
Three credits: approximately 120 hours over the semester assisting students and instructors (~9 hours per week)

Learning Outcomes:
At the end of the undergraduate teaching assistantship, the student will:
- Illustrate enhanced understanding of the course material through evaluation, tutoring, and grading of course-based submissions.
- Demonstrate knowledge of the basic theories and general practices for effectively assisting within the classroom or lab environment.
- Identify diverse communities and individuals and critically reflect upon the importance of respect for diversity.
- Compare the roles and responsibilities of an education and a student by examining ethical standards (specifically academic integrity) within the field of computer science and education.

Readings:


Course Topics:

Undergraduate Teaching Assistants may participate by:

- Providing input to course materials including generating problem sets, projects, homework assignments, labs, or other assignments as needed.
- Examining research related to developments in computer science and education.
- Assessing student needs and providing feedback to students in the form of grading, office hours, tutoring, or written (or electronic) responses to student questions.
- Participating in weekly discussions with faculty and other UTAs (and graduate teaching assistants as necessary).
- Leading review sessions for exams or quizzes.
- Proctoring or administering exams, make-up exams, or other assignments.
- Monitoring student submissions keeping academic integrity in-mind.
- Providing meaningful, thoughtful, unbiased, and constructive feedback to everyone.
- Acting in a professional manner.

Academic Integrity:

Academic integrity is an important value at UMBC. By enrolling in this course, each student assumes the responsibilities of an active participant in UMBC’s scholarly community in which everyone’s academic work and behavior are held to the highest standards of honesty. Cheating, fabrication, plagiarism, and helping others to commit these acts are all forms of academic dishonesty, and they are wrong. Academic misconduct could result in disciplinary action that may include, but is not limited to, suspension or dismissal.

More information can be found at:
https://academicconduct.umbc.edu/

Student Disability Services:

UMBC is committed to eliminating discriminatory obstacles that may disadvantage students based on disability. Services for students with disabilities are provided for all students qualified under the Americans with Disabilities Act (ADA) of 1990, the ADAAA of 2009, and Section 504 of the Rehabilitation Act who request and are eligible for accommodations. The Office of Student Disability Services (SDS) is the UMBC department designated to coordinate accommodations that would allow students to have equal access and inclusion in all courses, programs, and activities at the University.

If you have a documented disability and need to request academic accommodations for access to your courses, please refer to the SDS website at sds.umbc.edu for registration information and to begin the process, or alternatively you may visit the SDS office in the Math/Psychology Building, Room 212. For questions or concerns, you may contact us through email at disAbility@umbc.edu or phone (410) 455-2459.
If you require accommodations for this class, make an appointment to meet with your instructor to discuss your SDS-approved accommodations.
October 28, 2019

Dear UGC,

Below is a summary of the 7 changes that the Department of Computer Science and Electrical Engineering (CSEE) is proposing regarding the Computer Science program (CMSC).

Our goal is to have all of these go into effect in January 2020.

Thank you,

[Signature]

Jeremy Dixon
Undergraduate Program Director – Computer Science
CSEE
UMBC
<table>
<thead>
<tr>
<th>Num</th>
<th>Name of Change</th>
<th>Change Type</th>
<th>Course Number</th>
<th>Description of Change</th>
<th>Related Files</th>
</tr>
</thead>
</table>
| 1   | New Study Track - AI/ML                             | Program Change | XXX            | New Study Track                                                                       | Program_Change_Ai-ML.docx  
|     |                                                     |             |                |                                                                                       | Program_Change_CMSC_AI_TRACK_DETAILS.docx                                     |
| 2   | Change to CMSC Tracks                               | Program Change | XXX            | Change requirements for CMSC students who complete multiple tracks.                   | Program_Change_CMSC_Tracks.docx                                             |
| 3   | Change to CMSC Natural Science Requirement         | Program Change | XXX            | Change natural science requirements for CMSC majors. Going from 12 credits (sequence of BIO1/BIO2 or CHEM1/CHEM2 or PHYS1/PHYS2 + 4 additional credits) to 10-12 credits (sequence of BIO1/BIO2 or CHEM1/CHEM2 or PHYS1/PHYS2 + one lab science to include SCI100 or CHEM102L or PHYS122L or GES286) Additionally, students who transfer from a school with a lab science will have met this lab requirement. | Program_Change_CMSC_Natural_Science_Change.docx                             |
| 4   | Malware Analysis                                    | New Course   | CMSC 491 to CMSC 449 | New Course - converting CMSC 491 to CMSC 449                                         | NewCourse_CMSC449_-_Malware_Analysis.docx  
|     |                                                     |             |                |                                                                                       | NewCourse_CMSC449_-_Malware_Analysis_Syllabus.pdf                             |
| 5   | Introduction to Data Science                        | New Course   | CMSC 491 to CMSC 462 | New Course - converting CMSC 491 to CMSC 462                                         | NewCourse_CMSC462_-_Intro_to_Data_Science.doc  
|     |                                                     |             |                |                                                                                       | NewCourse_CMSC462_-_Intro_to_Data_Science_Syllabus.doc                          |
| 6   | Undergraduate Teaching Assistantship                | New Course   | CMSC 496       | New Course                                                                            | NewCourse_CMSC396_-_Undergraduate_Teaching_Assistantship.doc  
|     |                                                     |             |                |                                                                                       | NewCourse_CMSC396_-_Undergraduate_Teaching_Assistantship_Syllabus.doc           |
| 7   | Design and Analysis of Algorithms                   | Course Change | CMSC 441       | Modify prerequisites and at least one of the following: (STAT 355, CMPE 320, or STAT 451) all with a grade of C or better. | Course_Change_CMSC441_Prerequisites.doc                                      |