

# **OAKLAND UNIVERSITY**

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## **GRADUATE COUNCIL**

18 October 2010

TO: Virinder K Moudgil  
Senior Vice President for Academic Affairs and Provost

FROM: Susan Awbrey  
Senior Associate Provost

RE: Graduate Certificate in Biomedical Sciences

On behalf of the Graduate Council, I am pleased to forward a recommendation that Oakland University implement the proposed new Graduate Certificate in Biomedical Sciences effective Winter 2011.

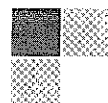
The Biology department has been experiencing a significant population of post-baccalaureate students, wishing to enroll in additional biology courses to improve their chances of getting admitted to medical, dental or veterinary school. Several of these students have been applying to the Master of Science in Biology degree even though they have no intention of completing the program. The Biology department has expressed concerns regarding the negative impact this continued behavior will have on their program and degree completion rates. The Graduate Certificate in Biomedical Sciences program is designed to better meet the needs of this growing population of students, without compromising the quality of the Master of Science in Biology degree.

The Graduate Council approved the proposal on September, 29 2010 with final revisions received in Graduate Study on October 15, 2010.

Cc: Michelle Piskulich, Associate Provost, Academic Affairs  
Claire Rammel, Executive Director, Graduate Study

Major Code 1107 Program Code GC1107  
Winter 2011 – Effective Admission term

CIP Code 260101  
2011-12 - Effective Graduate Program Catalog



**Create New Graduate Certificate Program**

**Approved Graduate Certificate** programs are planned programs limited to departments and schools authorized to offer graduate degrees. An **Approved Graduate Certificate** must be associated with a graduate degree program where, the certificate courses are comprised primarily from courses already present in the degree curriculum. Generally, the courses required in the Graduate Certificate program may be eligible to apply to the related degree program. The Graduate Certificate program should not be confused with State certification or endorsement programs.

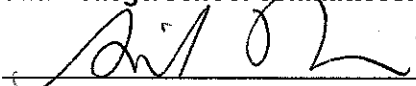
The Graduate Council approves of all new graduate certificate and degree program proposals. These proposals and other actions pertaining to policies and procedures governing graduate education must be approved by the appropriate academic department and the College or School **BEFORE** Graduate Council can submit a formal recommendation to the Provost for Senate and, as applicable, Board approval.


Please complete this brief proposal and submit an electronic copy to Evonne at [mitchel3@oakland.edu](mailto:mitchel3@oakland.edu)

graduate certificate program       post masters graduate certificate program

Effective Term/Year Fall / 2010	
Proposed Title of Graduate Certificate program  Biomedical Sciences	
Associated Graduate Degree program Master of Science in Biology, Cell/Molecular track	
Department Biological Sciences	College/School College of Arts and Sciences
The delivery method for the Graduate Certificate program is  <input type="checkbox"/> fully online <input type="checkbox"/> partially online	

**I certify that the above proposal has been reviewed and approved by the appropriate Department and College/School committees:**

      10/14/10      ARIK DVIR  
 Dept Chair or Director (signature)      Date      Dept Chair or Director (print)

      10/14/10      Kathleen H Moore  
 Dean of College/School (signature)      Date      Dean of College/School (print)

RECOMMEND IMPLEMENTATION 09/29/10

DECISION OF GRADUATE COUNCIL      Date  
CONTINGENT UPON REVISIONS      10/15/10  
 REVISIONS RECEIVED

RECEIVED  
 OCT 1 2010

OFFICE OF GRADUATE STUDIES

**1) Please provide the rationale for creating the proposed Graduate Certificate program. Use appropriate national, state, local, professional and disciplinary resources.**

Medicine will continue to be a growing portion of the economy of this state and of the nation. The rationale for this program is to help prepare students for success in gaining admission to medical, dental, or veterinary school.

**2) Describe the certificate requirements.**

The requirements are completion of 16 credits in graduate level biology courses in the area of cellular and molecular biology, genetics, biochemistry, and development.

**3) Provide a sample curriculum.**

After admission to the program, the student would meet with the Biological Sciences graduate advisor to form a plan of study consisting of four courses, with no more than one at a 400-level, designed to complement the student's background.

**4) List the courses, including any new courses.**

Four courses from the following list (or a substitute approved by the graduate committee) would be selected.

Course	Title	Credits	Prerequisite	Equivalent	New
BIO 511	Advanced Topics in Cellular Biochemistry and Metabolism	4			
BIO 515	Advanced Topics in Mechanisms of Development	4			
BIO 519	Advanced Genetics	4			
BIO 521	Medical Microbiology	4			
BIO 509	Endocrinology	4			
BIO 513	Advanced Topics in Cell Physiology	4			
BIO 523	Immunology	4			

**5) What are the admission requirements?**

- A bachelor's degree in biology or related subject (e.g., biochemistry, molecular biology, botany or zoology) from a regionally accredited institution or if the degree is in another discipline the candidate must have completed 20 credits in biology, 8 credits in mathematics, 8 credits in physics and 15 credits in chemistry. Applicants with undergraduate prerequisite course deficiencies in these areas must complete the preparatory coursework before being admitted to the program (see page 15 in the 2009-2011 Graduate Program Catalog).
- An undergraduate grade-point average of 3.00 or better (on a 4.00 scale)

**6) Describe the student population to be served.**

This program is aimed at students who wish to go to medical, dental, or veterinary school and wish to take graduate courses to improve the chances of admission.

**7) How does this certificate program complement the campus or departmental mission?**

Our department has encountered a significant population of students who have earned their bachelor's degree with the intention of going to medical, dental, or veterinary school, but need to take additional biology courses to increase their chances of admission. Some of these students apply to our Master of Science degree program even though they do not have the intention of completing the program or thesis. This certificate would better meet their needs, while still allowing us to maintain a high quality master's program.

**8) Describe any relationship to existing programs on the campus or within the university.**

The courses in this certificate are all courses that count toward our master's degree in Biology. Therefore, if a student in the certificate program decides to apply to the MA or MS program in Biology and was admitted, they could transfer the credits.

Students admitted to the Graduate Certificate in Biomedical Sciences program, who wish to transfer to the MA in Biology or MS in Biology degree program prior to the completion of the graduate certificate program, must meet all the admission requirements for the MA or MS degree program, excluding the GRE examination. In addition to satisfying the admission requirements, applicants:

- 1 Must have successfully completed three (3) courses in the graduate certificate program with at least a 3.0 GPA
- 2 Must submit a letter from a Biological Sciences faculty member that expresses a willingness to serve as their research mentor

Students admitted to the degree program can apply to transfer up to 12-credits earned in the graduate certificate program to their MA or MS degree.

**9) List and indicate the resources required to implement the proposed program. Indicate sources (e.g., reallocations or any new resources such as personnel, library holdings, equipment, etc.).**

The program would use existing courses.

**10) Describe any innovative features of the program (e.g., involvement with local or regional agencies, or offices, cooperative efforts with other institutions, etc.).**