Section 1. Course Title and Description

If the course contains a lecture and laboratory component, identify both the lecture and laboratory numbers (xxx and xxxL) and credit hours associated with each. Provide the complete description as it will appear in the system common or unique database, including pre-requisites, co-requisites, and registration restrictions.

<table>
<thead>
<tr>
<th>Prefix &amp; No.</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>MICR 438L</td>
<td>Techniques in Molecular Biology Laboratory</td>
<td>2</td>
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Course Description:

This laboratory course will provide hands-on experience for the students interested in basic molecular biology techniques, including gene amplification by polymerase chain reaction (PCR), DNA isolation and modification, bacterial transformation, protein expression and detection (Western Blot).

Pre-requisites: Current registration in or successful completion of MICR 436.

Section 2. Review of Course

Will this be a common or unique course? (select the appropriate option below)

x This course will be a unique course. (Go to Section 3.)

Section 3. Other Course Information

1. Are there instructional staffing impacts?

x Yes. Specify: Dr. Yajun Wu will be the instructor of this new course. He is currently co-teaching MICR436 while teaching/coordinating BIOL202L (9 lab sections) in fall semester. He won’t be able to teach two lab courses in the same semester. Dr. Don Auger, who teaches BIOL202 lectures in fall semester, will coordinate/teach BIOL202L at the same time.

This rearrangement will slightly increase teaching load for both instructors. In addition, Jessica Mediger, the general microbiology lab instructor, and Dr. Ruanbao Zhou, a molecular biologist in the department, will contribute to this new course.

2. Existing program in which course will be offered: Biology and Microbiology majors (Biology, Microbiology, Biotechnology)
3. Proposed instructional method: 30 min instruction and 2.5 hours lab
   (may be found at http://www.sdbor.edu/services/academics/AAC/guidelines.htm )

   Provide a brief justification: This course complements the lecture course MICR 436 providing the
   hands on lab techniques. This lab based course will help students better understand and apply
   MICR 436 concepts while gaining practical skills for graduate school/job application.

4. Proposed primary delivery Laboratory
   (may be found at http://www.sdbor.edu/services/academics/AAC/guidelines.htm )

5. Term in which change will be effective: Fall 2012

6. Can this course be repeated for additional credit?
   Yes, total credit limit: x No

7. Will the grade for this course be limited to S/U (pass/fail)? Yes x No

8. Will section enrollments be capped?
   Yes, maximum per sectic 12 No

9. Will this course be equated (i.e. considered the same course for degree completion) with any
   other unique or common course in the course database? Yes x No

10. Is this prefix already approved for your university? Yes No

Section 4. To be completed by Academic Affairs

1. University department code: SBIOM

2. Proposed CIP code: 260503
   Is this a new CIP code for this university? Yes x No
NEW COURSE REQUEST
Supporting Justification for On-Campus Review

Yajun Wu
Request Originator  Signature  Date

Volker Brözel
Department Chair  Signature  Date

Don Marshall  Don Marshall  2/21/2012
School/College Dean  Signature  Date

1. Provide specific reasons for the proposal of this course and explain how the changes enhance the curriculum
A. Is requested by students
B. Facilitate students’ understanding of course content (MICR436)
C. Develop students’ interests in molecular biology/biotechnology research
D. Enhance students’ competitiveness for graduate school and job application

2. Note whether this course is:  ________ Required  x ______ Elective

3. In addition to the major/program in which this course is offered, what other majors/programs will be affected by this course? None

4. If this will be a dual listed course, indicate how the distinction between the two levels will be made.
N/A

5. Desired section size  9-12 students

6. Provide qualifications of faculty who will teach this course. List name(s), rank(s), and degree(s).
Yajun Wu, Assistant Professor, Ph.D. in Agronomy, >10 yrs research/publication in molecular biology research

7. Note whether adequate facilities are available and list any special equipment that will be needed for the course. We have all the facilities for this lab course.

8. Note whether adequate library and media support are available for the course. Yes

9. Will the new course duplicate courses currently being offered on this campus?  x No

10. If this course may be offered for variable credit, explain how the amount of credit at each offering is to be determined. N/A

11. Add any additional comments that will aid in the evaluation of this request.
We have a strong group of molecular biology researchers at SDSU. They can provide great help and input for this lab course. The students may gain more molecular research experiences by doing research in these researchers’ labs after taking this lab course. We hope some of the well-trained undergraduate students will continue on campus for graduate studies.

Course Form #5  Updated AAC 03/2007