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| CIP Code: |  |
| Degree Code: |  |

**Bulletin / Banner Change Transmittal Form**

**[x ] Undergraduate Curriculum Council**

**[] Graduate Council**

Signed paper copies of proposals submitted for consideration are no longer required. Please type approver name and enter date of approval.

Email completed proposals to [curriculum@astate.edu](mailto:curriculum@astate.edu) for inclusion in curriculum committee agenda.

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| |  |  | | --- | --- | | David F Gilmore | 10/25/2018 |   **Department Curriculum Committee Chair** | |  |  | | --- | --- | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Enter date |   **COPE Chair (if applicable)** |
| |  |  | | --- | --- | | Travis D. Marsico | 10/26/2018 |   **Department Chair:** | |  |  | | --- | --- | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Enter date |   **Head of Unit (If applicable)** |
| |  |  | | --- | --- | | David F Gilmore | 10/25/2018 |   **College Curriculum Committee Chair** | |  |  | | --- | --- | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Enter date |   **Undergraduate Curriculum Council Chair** |
| |  |  | | --- | --- | | A.Lambertus for Anne Grippo | 10/26/2018 |   **College Dean** | |  |  | | --- | --- | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Enter date |   **Graduate Curriculum Committee Chair** |
| |  |  | | --- | --- | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Enter date |   **General Education Committee Chair (If applicable)** | |  |  | | --- | --- | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Enter date |   **Vice Chancellor for Academic Affairs** |

**1.Contact Person** (Name, Email Address, Phone Number)

Asela J. Wijeratne  
Phone: 870-972-3311  
Email: [awijeratne@astate.edu](mailto:awijeratne@astate.edu)

**2.Proposed Change**

Addition of prerequisites to BIO 4153, Laboratory in Biotechniques I (see Bulletin pages)

**3.Effective Date**

Fall 2019

**4.Justification –** *Please provide details as to why this change is necessary.*

This is a project-based laboratory course, which requires advanced skills in molecular biological lab techniques. A student without these technical skills will not be successful in this class. Therefore, the instructor will need to determine if the student meets the requirements.

**Bulletin Changes**

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| **Instructions** |
| **Please visit** [**http://www.astate.edu/a/registrar/students/bulletins/index.dot**](http://www.astate.edu/a/registrar/students/bulletins/index.dot) **and select the most recent version of the bulletin. Copy and paste all bulletin pages this proposal affects below. Follow the following guidelines for indicating necessary changes.**  **\*Please note: Courses are often listed in multiple sections of the bulletin. To ensure that all affected sections have been located, please search the bulletin (ctrl+F) for the appropriate courses before submission of this form.**  - Deleted courses/credit hours should be marked with a red strike-through (~~red strikethrough~~)  - New credit hours and text changes should be listed in blue using enlarged font (blue using enlarged font).  - Any new courses should be listed in blue bold italics using enlarged font (***blue bold italics using enlarged font***)  *You can easily apply any of these changes by selecting the example text in the instructions above, double-clicking the ‘format painter’ icon 🡪 , and selecting the text you would like to apply the change to.*  *Please visit* [*https://youtu.be/yjdL2n4lZm4*](https://youtu.be/yjdL2n4lZm4) *for more detailed instructions.* |

**BIO 4143. Pharmacology** The study of drugs and their mechanisms of action at the system, cellular, and molecular levels. Special course fees may apply. Prerequisites, BIO 2203 and BIO 2223, or BIO 3223 and BIO 3233, BIO 4104, and CHEM 4243. Spring, even.

**BIO 4153. Laboratory in BioTechniques I** Laboratory techniques in protein chemistry and analytical techniques. Techniques also include a variety of chromatographic methods, electropho­resis, UV-vis spectroscopy and radiochemistry. Laboratory 4 hours per week. Special course fees may apply. Prerequisite, BIO 3011, BIO 3013, BIO 4131, BIO 4133, CHEM 4241, and CHEM 4243; or Permission of instructor. Spring.

**BIO 4163. Laboratory in BioTechniques II** Laboratory techniques in DNA/RNA isolation, analysis and applications, including PCR, reverse transcriptase PCR, recombinant DNA and the production of gene expression products. Laboratory 8 hours per week. Special course fees may apply. Prerequisite, BIO 4153.

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