**Amarillo College Curriculum Map Template**

**Division:** STEM **Degree/Academic Program(s):** Biology (BIOL.AS; PAST.AS; RNSG.AS) **Person Responsible for Division:** Dan Ferguson, Dean **Component Director/Chair:** Claudie Biggers **Submission Date:** December 2, 2015 **Purpose Statement: The mission of the Biology A.S.** degree is for students to utilize common learning objectives to increase scientific literacy in order to critically evaluate scientific information to make informed decisions. To provide an opportunity to relate acquired knowledge to other related fields of studies that lead to transfer level courses, advanced degrees and careers.

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| **Goal #1: To graduate students with the ability to apply critical thinking and scientific problem-solving skills in the classroom. Outcomes including but not limited to, inquiring, synthesizing and summarizing, to make decisions, recommendations and predictions.** |
| **Program-Specific Courses** | **Course Name** | **PLO #1:****Use critical thinking and scientific problem-solving to make informed decisions in laboratory.** | **PLO #2:****Apply scientific reasoning to investigate questions and utilize scientific tools such as microscopes and laboratory equipment to collect and analyze data.** | **PLO #3:****Student will communicate effectively the results of scientific investigations.** |
| **SCIT 1307** | **Pre AP** | **I** | **I** | **I** |
| **BIOL 2374** | **Integrated Biol** | **I** | **I** | **I** |
| **BIOL 1411** | **Gen Botany** | **ID** | **ID** | **ID** |
| **BIOL 1413** | **Gen Zoology** | **ID** | **ID** | **ID** |
| **BIOL 2306**  | **Environmental** | **ID** | **ID** | **ID** |
| **BIOL 1408** | **Life Science 1** | **I** | **I** | **I** |
| **BIOL 1409** | **Life Science 2** | **D** | **D** | **D** |
| **BIOL 2416**  | **Genetics** | **ID** | **ID** | **ID** |
| **BIOL 2420** | **Microbiology** | **ID** | **ID** | **ID** |
| **BIOL 2421** | **Microbiology M** | **ID** | **ID** | **ID** |
| **BIOL 1406** | **Biology 1 Maj** | **ID** | **ID** | **ID** |
| **BIOL 1407** | **Biology 2 Maj** | **M** | **M** | **M** |
| **BIOL 2401** | **AP 1** | **ID** | **ID** | **ID** |
| **BIOL 2402** | **AP 2** | **ID** | **M** | **M** |

**I = Introduced; D = Developed & Practiced with Feedback; M = Demonstrated at Mastery**

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| **Goal #2: To graduate students who can demonstrate their knowledge of the steps involved in scientific method. Outcomes including communicate results of scientific investigations, analyze data and formulate conclusions.** |
| **Program-Specific Courses** | **Course Name**  | **PLO #1:****Demonstrate the steps involved in the scientific method.** | **PLO #2:****Communicate results of scientific investigations, analyze data and formulate conclusions.** | **PLO #3:****Explain the methods of inquiry used by scientists.** |
| **SCIT 1307** | **Pre AP** | **I** | **I** | **I** |
| **BIOL 2374** | **Integrated Biol** | **I** | **I** | **I** |
| **BIOL 1411** | **Gen Botany** | **ID** | **ID** | **ID** |
| **BIOL 1413** | **Gen Zoology** | **ID** | **ID** | **ID** |
| **BIOL 2306**  | **Environmental** | **ID** | **ID** | **ID** |
| **BIOL 1408** | **Life Science 1** | **ID** | **ID** | **ID** |
| **BIOL 1409** | **Life Science 2** | **D** | **D** | **D** |
| **BIOL 2416**  | **Genetics** | **D** | **D** | **D** |
| **BIOL 2420** | **Microbiology** | **D** | **D** | **D** |
| **BIOL 2421** | **Microbiology M** | **M** | **M** | **M** |
| **BIOL 1406** | **Biology 1 Maj** | **ID** | **ID** | **ID** |
| **BIOL 1407** | **Biology 2 Maj** | **M** | **M** | **M** |
| **BIOL 2401** | **AP 1** | **ID** | **ID** | **I** |
| **BIOL 2402** | **AP 2** | **D** | **D** | **I** |

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| **Goal #3: Graduates will have the skills to analyze and assimilate course materials in order to formulate objective conclusions.****Objective is for students to demonstrate mastery of 70% of our objectives outlined in the ACGM.** |
| **Program-Specific Courses** | **Course Name** | **PLO #1:****Demonstrate understanding of core biological concepts.**  | **PLO #2:****Communicate results of scientific investigations, analyze data and formulate conclusions.**  | **PLO #3:****Use critical thinking and scientific problem-solving to make informed decisions within their professional careers.** |
| **SCIT 1307** | **Pre AP** | **I** | **I** | **I** |
| **BIOL 2374** | **Integrated Biol** | **I** | **I** | **I** |
| **BIOL 1411** | **Gen Botany** | **ID** | **ID** | **ID** |
| **BIOL 1413** | **Gen Zoology** | **ID** | **ID** | **ID** |
| **BIOL 2306**  | **Environmental** | **ID** | **ID** | **ID** |
| **BIOL 1408** | **Life Science 1** | **ID** | **ID** | **ID** |
| **BIOL 1409** | **Life Science 2** | **D** | **D** | **D** |
| **BIOL 2416**  | **Genetics** | **ID** | **ID** | **ID** |
| **BIOL 2420** | **Microbiology** | **ID** | **ID** | **ID** |
| **BIOL 2421** | **Microbiology M** | **D** | **D** | **D** |
| **BIOL 1406** | **Biology 1 Maj** | **ID** | **ID** | **ID** |
| **BIOL 1407** | **Biology 2 Maj** | **DM** | **DM** | **DM** |
| **BIOL 2401** | **AP 1** | **ID** | **ID** | **ID** |
| **BIOL 2402** | **AP 2** | **D** | **M** | **M** |

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| **Program-Specific Courses** | **Course Name** |
| **SCIT 1307** | **Pre AP** |
| **BIOL 2374** | **Integrated Biol** |
| **BIOL 1411** | **Gen Botany** |
| **BIOL 1413** | **Gen Zoology** |
| **BIOL 2306**  | **Environmental** |
| **BIOL 1408** | **Life Science 1** |
| **BIOL 1409** | **Life Science 2** |
| **BIOL 2416**  | **Genetics** |
| **BIOL 2420** | **Microbiology** |
| **BIOL 2421** | **Microbiology M** |
| **BIOL 1406** | **Biology 1 Maj** |
| **BIOL 1407** | **Biology 2 Maj** |
| **BIOL 2401** | **AP 1** |
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