

## **Writing Requirement for BIOL 291/491**

**This requirement is for all students enrolled in BIOL 291/491. It does NOT fulfill the requirements for a W-course credit.**

At the end of each semester of research, all students will submit a written report that must first be reviewed by their faculty mentors. These reports will be turned in to Biology's Undergraduate Research Coordinator and used to assess the breadth of research being conducted by Biology Undergraduates at A&M. Reports may also be reviewed by UPC for nomination and granting of awards.

### **Options for completing the Research writing requirement: choose one**

#### **Option #1 Research Summary- individual**

- i. The written work should take the form of a modified scientific abstract and be a minimum of 350 words, but no more than 4 typed page. The font should be no smaller than 10 points and all margins must be at least 0.5 inches. If you include figures, the maximum length is 6 pages. If references are included, they may also be on additional pages if necessary.
- ii. The abstract should begin by presenting a brief background, including the larger scientific question, and how the research you are conducting will help answer the question.
- iii. The majority of the abstract should describe your work and results. Oftentimes, science is a collaborative effort, so your results only make sense or are complete when combined with the work of others. You can include this other work in your abstract. However, unlike an abstract from a scientific article, your abstract should clearly indicate what you did. This will mean that you will need to use the word "I" and words like "other lab members", "graduate student", "postdoc". Since you were working with these people, you can give them credit by using their names along with titles.

At times, projects may take more than a single semester to produce results. If this is the case, describe the progress made, where the project is currently, and what still needs to be done. Again, be sure to clearly indicate your contributions.

- iv. In the conclusion, you should discuss how your results answer the scientific question you started with. If you are lacking results, discuss how the results will answer the question. You may also choose to include future directions.

#### **Option #2 -Oral or Poster Presentation at scientific meeting-individual**

If you make an oral or poster presentation at a scientific meeting, not including lab meetings, please submit the abstract for the meeting, the meeting name, location, and date. For this option, the student must attend and present the work at the meeting. This could include an oral presentation at Student Research Week.

Option #3- Poster Presentation- individual or group- Spring only

Prepare a scientific poster for a scientific meeting and/or Biology's Poster presentation at the end of Spring semester. Note, this poster can be the same one used for Student Research Week. If you worked closely with other students, you may prepare a combined poster. In the case of a poster with more than one student author, you will need to submit a short paragraph highlighting the part(s) of the project for which you were directly responsible.

The undergraduate student should be first author or co-first author with another undergraduate student.

Option #4- Final BIOL 495 or 491 W manuscript

If you are taking BIOL 495 or 491 as a W course, you may use your final manuscript provided it is clear which parts of the research you contributed. If it is not clear, please include a short paragraph highlighting your specific contributions.

Option #5 Research Scholar's Thesis- Individual

If you are participating in the Research Scholar's Program as an individual, you may use your drafts in the fall semester and the final thesis in the spring. If you choose this option, you will also need to provide a short paragraph highlighting what part of the project you were directly responsible for if it is not clear from the thesis.