I. COURSE DESCRIPTION

BIOL 497. Internship in Biotechnology (4). Career-related experience in private industry, government agency, and/or public sector. All participants utilize learning agreements. A final written report is required. Students will be supervised both on site and by the course instructor. The learning agreement must be completed and signed prior to enrollment. Spring and Summer. May be repeated for a maximum of eight (8) units, but only four (4) units can be applied toward the major. Prerequisites: Consent of instructor prior to registration.

II. OVERVIEW

The biotechnology industry uses biological research and analytical methods (particularly cellular and molecular) to solve problems and/or make useful products for application in medicine, health applications, agriculture, environmental management and a range of technology support products. Industry and community leaders have called for entry-level employees who have acquired the applicable science theory, are laboratory trained, and have been exposed to the commercial work environment. In addition, employers prefer that the potential employee to have some orientation or experience in a preferred career path. To accomplish the above, this internship program provides students with needed professional work exposure to enhance their qualification for the entry-level job market and beyond. This internship program is strongly encouraged but not required.

III. PURPOSE AND OBJECTIVES

A well-executed internship program allows students to hone their skills, “test-drive” professions, introduce them to professional work environment, and provide the foundation of a structured learning experience to build upon. For the hosting companies, a positive experience and work accomplishment are essential to a successful internship. The Internship Program is designed to enhance the educational experience at CSUSM. The objectives are:

- Offer an accredited course that clearly defines the application, procedures, course requirements, student-supervisor-advisor expectations and evaluation criteria and method.
- Provide students with the opportunity to obtain practical experience that will build upon their academic base and prepare them for successful job entry and a career in the varied and rapidly advancing field of Biotechnology.
- Maintain a positive experience with cooperating industry/community partners and build a perception of quality of the program and CSUSM.
IV. REQUIREMENTS

Students must be Biotechnology or Chemistry majors of at least a sophomore standing and have a minimum GPA of 3.0 or approval of the Program Coordinator. Students should be prepared to dedicate 225 total internship hours or approximately 15 hours/week for 15 weeks. The work hour schedule will be determined with the hosting company.

Students will be required to submit a Final Report to the course advisor and a Presentation to the class of interns towards the end of the semester. The learning expectations will be identified with each student at the beginning of the internship. It is the responsibility of each student participant to obtain and understand the expectations from the advisor and supervisor. A final report to the Internship Coordinator and a letter of recommendation from the hosting company is required for students to receive a final grade.

V. PROGRAM CONDITIONS

Internship selections are subject to the final approval of the company sponsor and advisor. The expertise and area of interest for each project will vary. The internships that are available will vary with the commitments from the industrial community. Therefore, available internships are not guaranteed each semester. A student may also seek and secure a company internship during the scheduled semester or for during the Summer Session. In such case, the Intern Coordinator and Advisor must give final approval and will provide assistance in securing the internship.

Prior to finalizing course selection and the internship expectation, students seeking internships should check with the Intern Coordinator to ensure availability and to meet university guidelines for off-site students. Hosting companies may or may not subsidize work hours with compensation.

Intellectual Property and Confidentiality of the company operation must be maintained. Internship Agreement will be required prior to starting the project and will acknowledge Confidentiality requirements. In addition, the company may request that you execute their “Confidentiality and Non-Disclosure Agreement”.

VI. PROGRAM OUTLINE

a. Procedure for securing an internship and timeline.

Students interested in obtaining an internship should contact the Coordinator prior to the semester in which they are planning an internship. Students will work together with the Coordinator to identify a suitable internship position.

Internships from the pool of available internships and companies will be selected or matched with seeking students on a) a first-come, first-opportunity basis, b) best-fit for skill, interest, and work schedule, and c) subject to final approval by the company.
The selection process shall be:

- Application – Provide student information, interest, preferences, available work hours, location preferences/restrictions, and biography/resume.
- The Coordinator will match and/or secure company approval.
- Coordinator will complete the approval process to register the Intern-hosting Company with the Procurement Office and Community Service Learning.
- The Internship commitment should be completed at least two-weeks prior to the end of the semester preceding the Intern period.

b. Internship/Course General Outline.

Week 1 – Group lecture to establish the semester outline and procedures. The first week will focus on expectations, behavior, intellectual property protection, lab notebook procedure, ethics, introduction to corporate environment, and prospects for success. Meet with hosting the Company Supervisor, Student, and Intern Coordinator to -- break the ice, discuss the position, expectations, hours, grading method and criteria, company policies and address any issues prior to internship. Meetings to be finished before the end of Week 2.

Week 2 – Establish relationship, schedules, expectations, preparation, reading, and complete document requirements with the hosting company/supervisor. One lecture meeting will be held to discuss and share progress.

Week 3~13 – Work at company as arranged. Periodic contact with the Coordinator is required (determined in Week 1) to review progress of the student and to provide feedback from the company supervisor. Student should contact the Coordinator throughout the Intern period as needed or desired.

Week 14 – Group presentations (one two-hour class) to review experience, final reports, and present a 5-10-minute presentation on the experience to the rest of the interns.

Week 15 – Submit the following to the Intern Coordinator:
- Final Report or confirmation of writing requirement.
- Student Evaluation from Industry Supervisor.
- Letter of Recommendation from Industry Supervisor, as applicable.
- Letter of appreciation that will be sent to the company/supervisor.

c. Responsibilities

It is the responsibility of the student to ensure that program details are complete and communicated with the Intern Coordinator and Company Sponsor. The student is expected to display a professional behavior and to honor the hosting company’s policies, procedures and culture. CSUSM strongly promotes and expects a strong work ethic, honesty in performance of duties, courtesy to others in the workplace and protective of intellectual and proprietary property of others. CSUSM assumes no liability for the student interns or their actions while at the company.
d. **Internship Report, presentation and grade requirements.**

Students are expected to write progress reports, special reports and summaries “on the job” for the university writing requirement. An understanding between the supervisor, intern and the coordinator must be arranged at the beginning of the semester. Documentation or verification (in case of sensitive/confidential info) must be completed by the last day of class of the semester. In the absence of written reports, an appropriate paper topic will be assigned and expected by the Intern Instructor/Coordinator.

e. **Grade**

All of the above must be met prior to a grade designation. The final grade will be determined by performance on the job and progress against assigned goals. The instructor will work with the supervisors and students to obtain appropriate goals and expectations for the semester. Grades will also be influenced by the quality of preparation, interactive participation in the program, internship experience, final reports/presentations, and performance evaluation by the supervisor.

VII. **FORMS, APPLICATION, POLICIES AND EXAMPLES**

a. **Internship Application** – Application plus resume to be completed and returned to the BIOL 497 Coordinator prior to registering for the course credit.

b. **Sample Resume** – Attach your resume to the application. The Company and Coordinator will review it for placement and Internship consideration.

c. **Student Registration Form (Office of Community Service Learning)** – To be completed upon assignment of an Intern position. Return to the Coordinator.

d. **Guidelines and Limitations for Student Field Placement** – To be completed upon assignment of an Intern position. Return to the Coordinator.

e. **University-Community Partnership Agreement** – To be completed by the company upon the acceptance of a CSUSM Intern. Check with Coordinator for needed action.

f. **Confidentiality and Non-Disclosure Agreement** – To be completed by the Intern with original to the company and a copy to the Coordinator. If the Company requires an additional Confidentiality Agreement or any other Agreements, a copy must also be submitted to the Coordinator.

g. **Student Intern Evaluation Form** – A blank Evaluation Form and the example will be given to your Intern Company Supervisor at the beginning of the Intern period. The form will be completed by the supervisor, signed by the Intern and the Coordinator.

**Grade Makeup**

Your grade will be largely determined by your performance and progress against goals/assignments by your company supervisor. The Internship Instructor will work with teach intern supervisor and
company officials to ensure mutual understanding of expectations, performance levels, and university requirements. The Instructor also has discretionary valuation of the Intern in three of the following four areas.

10% Establishment of goals and work expectations.
60% Final performance evaluation.
10% Reports and writing requirements.
20% Instructor Assessment/Final class presentation.

**Grading System**

All of the above categories and individual assignments will be evaluated against “Expectations”. Numerical values will be assigned for the various levels of performance and completion of the assignments.

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<tr>
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<td>3.0</td>
</tr>
<tr>
<td>Does Not Meet Expectation</td>
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<tr>
<td>Fails to Complete Assignment</td>
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Grades are intended to be assigned as whole letter grades. However, plus/minus grading will be used for each assignment or valuation component. The following decimal values will be used to calculate the final grade.

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