organization and works under the direct supervision of someone with a degree, credential, or demonstrated expertise in psychology or sociology. Students identify how their work in the community contributes to the overall society in an effort to create a more globally minded citizenry. New placements learn about the agency’s services, and to begin to apply psychological and sociological principles, theories, and concepts, while ongoing placements refine and strengthen their application of those principles, theories, and concepts. In weekly topical seminars, based on trending/current events and student placements, students both process their placement experiences and apply theory to practice. (CSU)

**BIOLOGY**

Biology career options include dozens of intriguing specialties. One can concentrate on microbiology and investigate viruses, bacteria, or molds. One can focus on cytology and study cells or histology and delve into the structure of animal and vegetable tissue. Ichthyology, parasitology, embryology, genetics, ecology, and biochemistry are a few of the other choices in the field. Emerging areas of emphasis include the concern for the environment and allied health professions.

**Career Options**


**Faculty**

Fernando Agudelo-Silva, Becky Brown, Tina Christensen, Paul da Silva, Jamie Deneris, David Egert, Joseph Mueller

**Department Phone:** 415-485-9510

**A.S. IN BIOLOGY**

*(Certificate of Achievement in Natural History also awarded. Skills Certificate available in Environmental Science.)*

Students who complete the requirements listed below, plus additional general education and graduation requirements, will be awarded the associate degree. While students may take classes at both campuses, courses required for the major are offered at the Kentfield Campus.

**All students should consult a counselor.**

**REQUIREMENTS**

**BIOL**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>112A</td>
<td>Majors’ Biology: Animals, Protozoa, Evolution and Classification</td>
<td>5</td>
</tr>
<tr>
<td>112B</td>
<td>Majors’ Biology: Plants, Algae, Fungi, and Ecology</td>
<td>5</td>
</tr>
<tr>
<td>112C</td>
<td>Majors’ Biology: Molecules, Cells, Prokaryotes and Genetics</td>
<td>5</td>
</tr>
<tr>
<td>Or</td>
<td>CHEM 115 Survey of Organic and Biochemistry</td>
<td>4</td>
</tr>
<tr>
<td>And</td>
<td>CHEM 131 General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>And</td>
<td>CHEM 132 General Chemistry II</td>
<td>5</td>
</tr>
</tbody>
</table>

**TOTAL CERTIFICATE UNITS MINIMUM OF 32.5**

Upon successful completion of this certificate, students will be able to:

- Describe the major components of local ecosystems and explain their interrelationships.
- Use available resources and accepted procedures to identify species of living things, types of rocks and minerals and important...
COMMUNICATION COURSES (COMM)

COMM 100: Introduction to Communication & Speech
3.0 Units. 3 lecture hrs/wk. No prerequisite.
An interactive course focusing on presentational speaking, emphasizing building self-confidence through progressive performance experiences. Students provide written and oral feedback of peer performances in a collaborative group-based format. (CSU/UC) AA/AS Area E, CSU Area A-1, IGETC Area 1C

COMM 101: Interpersonal Communication
3.0 Units. 3 lecture hrs/wk. No prerequisite.
This course introduces the theories, processes, and principles of interpersonal communication, and builds self-confidence through oral communication performance experiences. Through research and in-class oral presentations, students examine how human characteristics (e.g., gender, age, power, culture) and the communicative environment affect relationship development, emphasizing the study of the theory and practices of speech interaction in person-to-person settings. Concepts examined include perception, attraction, self-disclosure, listening, conflict management, and the patterns and stages in the development of interpersonal communication. Students are expected to demonstrate and apply skills through individual and group presentations and written reflections. (CSU/UC) AA/AS Area E, CSU Area A-1; IGETC Area 1C

COMM 102: Intercultural Communication
3.0 Units. 3 lecture hrs/wk. No prerequisite.
This introductory course surveys the basic theories and research in the area of intercultural communication, focusing on understanding and improving human interaction in both domestic and international contexts. Students examine how their own cultural beliefs and values influence their perception in order to achieve more positive outcomes when communicating with individuals from diverse backgrounds and identities. The course draws from multiple perspectives, through lecture, discussion, reading, independent research, films, presentations, and written and oral assignments. (CSU/UC) AA/AS Area E, CSU Area D; IGETC Area 4

COMM 103: Public Speaking
3.0 Units. 3 lecture hrs/wk. No prerequisite.
This introductory course in rhetoric and public address focuses on the creation and presentation of speeches that inform, persuade, inspire, and/or entertain. Emphasis is on analyzing the audience, adapting ideas and evidence in support of a thesis, developing language suitable to the occasion, applying ethical decision-making, and practicing delivery to effectively convey the message. The course develops critical listening skills through performance and evaluation. (CSU/UC) AA/AS Area E, CSU Area A-1; IGETC Area 1C

COMM 104: Argumentation and Persuasion
3.0 Units. 3 lecture hrs/wk. No prerequisite.
This argumentation and debate theory course develops critical thinking skills through written and oral arguments. Students create arguments on current issues and enduring questions; advocacy positions include stock issues, philosophical perspectives, and impacts on changing the status quo. (CSU/UC) AA/AS Area E, CSU Area A-1; IGETC Area 1C

COMM 105: Small Group Communication
3.0 Units. 3 lecture hrs/wk. No prerequisite.
This class offers practical experience in the techniques of leading and participating in small group discussion. Effective techniques such as speaking on panels, symposiums, problem solving groups, conflict resolution within small groups, and leadership skills and parliamentary procedures are covered. Designed for students intending to major in Speech/Communication, business, international business, education, and all fields of study and certification that require group
**KIN 215: Advanced First Aid/First Responder**
3.0 Units. 2.5 lecture and 1.5 hrs/wk. No prerequisite. May also be taken as FIRE 215; credit awarded for only one course.

This introductory course is designed for lay persons interested in, or for professionals who require, First Responder training per State of California (Title 22) or U.S. DOT standards. The class teaches the basic pre-hospital care skills needed to render care at the scene of an emergency until more highly trained emergency medical response personnel arrive. Includes basic anatomy and body systems; lifting and moving patients; airway management; patient assessment; medical, behavioral, and trauma emergencies; terrorism awareness; and an overview of the Emergency Medical Services (EMS) system. This course is a prerequisite for the Emergency Medical Technician Program. (CSU/UC)

**LIBRARY**

Learning the techniques of library research will enable students to make use of this resource with confidence and efficiency. Library Skills courses enable students to manage information in an era of information explosion, whether their interests are academic, professional, or personal.

Faculty
John Erdmann, Sarah Frye, David Patterson
Department Phone: 415-485-9475

**LIBRARY COURSE (LIBR)**

**LIBR 110: Introduction to Library Resources: A Self-Directed Approach**
1.0 Unit. 1.125 TBA hrs/wk. No prerequisite. Self-paced. No regularly scheduled class meetings. Completion of the course represents approximately eighteen to thirty-six hours of academic work.

A self-paced course that facilitates the use of the library and teaches the basic skills needed for library research. The resources studied and the skills learned are applicable to any library - academic, public or special. Topics include the card catalog; important reference works such as encyclopedias, dictionaries, and almanacs; periodicals; periodical indexes; and book reviews. (CSU/UC)

**MACHINE AND METALS TECHNOLOGY**

Study in the field of machine and metals technology is designed as preparation for entrance into metalworking occupations. Graduates may enter the fields dealing with industrial production, prototype construction, special die work, or research and development. The courses in welding are designed to provide opportunity for the development of skills, knowledge, and experience for employment in the occupation and as auxiliary experience for persons in other majors.

**Career Options**
Certified Welder, Lathe Operator, Machinist, Machinist Apprentice, Mechanical Technician, Numerical Control Operator, Production Welder, Tool and Die Maker, Tool Company Representative, Welder Fabricator, Welding Technician

**MACHINE AND METALS TECHNOLOGY COURSES (MACH)**

**MACH 106A: Metal Fabrication Fundamentals**
2.0 Units. 1 lecture and 3 lab hrs/wk. No prerequisite.

This course introduces advanced metal fabrication techniques and their usefulness in other applications. The course includes basic metal straightening fundamentals, and introduces tools, techniques, and theory of metal fabrication. (CSU)

**MACH 107A: MIG Welding for Auto Collision Repair Fundamentals**
2.0 Units. 1 lecture and 3 lab hrs/wk. No prerequisite.

This course introduces basic auto body repair techniques using the MIG (metal inert gas) Welder. The course includes a short introduction to welding, and introduces MIG techniques and theories of metalworking. (CSU)