**Natural History of Baja**

**Winter 2017**

**Instructor:** Virginia Matzek

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**Office Hours:** Thursdays, 1-3 pm or by appt.

**Course Description:** Examines the natural history of Baja California Sur, with emphasis on the taxonomy of marine and terrestrial organisms, the ecology of desert and coastal ecosystems, and the biogeography of the peninsula. Students will become familiar with desert, riparian, beach, mangrove, and rocky intertidal habitats, develop field observation and species identification skills, and explore local conservation challenges.

**Course Format:** Two lectures per week. Lab time is spent in the Sierra La Laguna (Cape Region) and on Isla Espiritu Santa (La Paz Bay) in Baja California Sur, Mexico from March 23 to April 1. *Because the class departs during finals week, you will need to make an alternative arrangement for any Thurs/Fri finals in other courses—do this immediately.* In addition, we will be traveling to the California Academy of Sciences on January 26th (3:30-6 pm), and to Elkhorn Slough on February 18 (Saturday, 9 am to 4 pm).

**Course motto:** ¡*Todo bien!*

**Required Materials:** Course fees provide for the purchase of a field notebook, loupe, and dry bag for every student. Binoculars belonging to SCU are checked out by students for field trips. The outfitter in Baja provides tents, sleeping pads, wetsuits, snorkel gear, and all kayaking equipment. Students should expect to bring a personal sleeping bag, sturdy hiking boots or shoes, field clothing, swim togs, hat, sun protection, water bottle, and other personal items appropriate to a lengthy stretch living outdoors.

**Readings:** Required texts: Laws, *The Laws Guide to Nature Drawing and Journaling* and Steinbeck’s *Log from the Sea of Cortez*. Other course readings will be made available on Camino.

**Learning Outcomes:** Natural History is the “practice of intentional, focused attentiveness to the more-than-human world, guided by honesty and accuracy” (Fleishner 2005). Through 10 weeks of coursework we will hone our skills in patient, attentive observation of both fine detail and big-scale pattern in nature. We will also develop our knowledge of the organisms and ecological systems that inhabit the southern Baja Peninsula and its associated islands. Each student will research the natural history of five species we are likely to encounter on our trip (“Amigos”) and contribute it to the class field guide.

**Field journal:** The maintenance of a thorough field journal is a key skill for naturalists, creating a record of your observations, ideas, and questions. Keeping such a journal involves actively practicing drawing, sketching, observing, mapping, photography, and writing skills. You will write in your field journal frequently during the quarter and every day on the Baja expedition.

**Learning outcomes:**

This class will encourage you to:

* + develop your skills of observation and interpretation of natural systems, and connect to the grand tradition of natural history;
  + increase your familiarity with the taxonomy and anatomy of major groups of plants and animals of Baja California;
  + further your understanding of the diversity and structure of natural communities and how major selective forces have shaped organism structure and physiology.

**Attendance:** You are expected to attend all lecture sessions and field trips. Unexcused absences on field trips will reduce your grade by 10% each. Students with unexcused absences for lecture days will get an automatic zero for that day’s quiz (if any). Excused absences are limited to documented illness (doctor’s note verifying that you were seen on the date of the absence) or a death in your immediate family; any missed quiz must be made up in office hours. Full participation in the international portion of the course is required to pass this class. Students who have medical needs related to pregnancy or parenting may be eligible for accommodations.

**Disabilities Resources:** If you have a disability for which accommodations may be required in this class, please contact Disabilities Resources, Benson 216, [www.scu.edu/disabilities](http://www.scu.edu/disabilities) as soon as possible to discuss your needs and register for accommodations with the University. Once you have arranged accommodations through Disabilities Resources, please discuss them with me during my office hours.

**Academic Integrity Pledge:** Students are expected to uphold the principles of the campus Academic Integrity pledge, which states: *I am committed to being a person of integrity. I pledge, as a member of the Santa Clara University community, to abide by and uphold the standards of academic integrity contained in the Student Conduct Code.* Specifically for this class, all sources of information should be cited on Amigos sheets, and drawings done from photographs or other drawings should note the photographer’s or artist’s name. For all graded assignments, I expect you to do entirely original work; do not copy from other students and do not share your own work to assist fellow students. The penalty for cheating or plagiarism ranges from a zero for the assignment to an F in the course, depending on my judgment of the seriousness of the offense. I report all infractions to the University, which may take further disciplinary action.

**Sexual Harassment and Discrimination (Title IX):** Santa Clara University upholds a zero-tolerance policy for discrimination, harassment and sexual misconduct. If you (or someone you know) have experienced discrimination or harassment, including sexual assault, domestic/dating violence, or stalking, I encourage you to tell someone promptly. For more information, please consult the University’s Gender-Based Discrimination and Sexual Misconduct Policy [at](https://www.scu.edu/media/offices/student-life/policies/GenderBasedDiscriminationandSexualMisconductPolicyPublication.pdf)<http://bit.ly/2ce1hBb> or contact the University's EEO and Title IX Coordinator, Belinda Guthrie, at 408-554-3043, bguthrie@scu.edu. Reports may be submitted online through<https://www.scu.edu/osl/report/> or anonymously through Ethicspoint<https://www.scu.edu/hr/quick-links/ethicspoint/>.

**Electronic devices**: This class is about curiosity, attentiveness, and patient observation. You cannot cultivate these habits if you are being interrupted every 5 minutes by pinging and beeping and updates from friends and family. Moreover, you will inevitably distract your fellow students with your own inattention. Consequently, I ask that you not use laptops or consult your phones in class. Recognizing that most people now use their phones as cameras, you may have phones on field trips. Please do not abuse my trust by logging into social media, texting, or otherwise distracting yourself from nature on these occasions.

**Safety**: Safety is paramount in this class. A separate document governing safety and appropriate behavior on the field excursions, along with a safety pledge, is attached to this syllabus.

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| Date | Lecture topic | Due today |
| 10-Jan | Intro to course goals; Amigos assigned |  |
| 12-Jan | Great moments in natural history & biogeography |  |
| 17-Jan | Relevance of natural history to modern biosciences | quiz; |
| 19-Jan | Pre-trip logistics, prep; camp roles assigned | books in hand by today |
| 24-Jan | Field collections: notes and specimens | quiz; Amigos |
| 26-Jan | **Field trip to Cal Academy** |  |
| 31-Jan | Geology and Oceanography of Baja | quiz; Amigos |
| 2-Feb | Ecophysiological adaptations to the desert | quiz; Amigos |
| 7-Feb | Ecophysiological adaptations to the intertidal | quiz; Amigos |
| 9-Feb | Taxonomy and anatomy of major Baja plant families | quiz; Amigos |
| 14-Feb | Baja plant associations and biogeography | quiz; Amigos |
| 16-Feb | Bird identification 101 | quiz; Amigos |
| 18-Feb | **Field trip to Elkhorn Slough** |  |
| 21-Feb | Bird physiology, behavior, and migratory patterns | quiz; Amigos |
| 23-Feb | Marine mammal taxonomy, anatomy, diversity | quiz; Amigos |
| 28-Feb | Marine mammal conservation | quiz; Amigos |
| 2-Mar | Sharks, fish, and fisheries of Baja | quiz; Amigos |
| 7-Mar | Marine invertebrate taxonomy and anatomy | quiz; Amigos |
| 9-Mar | Herps of Baja | quiz; Amigos |
| 14-Mar | Insects and arachnids of Baja | quiz; Amigos |
| 16-Mar | Wrapup | last of the Amigos |
| 23-Mar | LEAVE FOR BAJA |  |

**Graded Assignments:**

In-class quizzes (lowest score dropped) 30%

Amigos sheets for field guide 10%

Field journal 40%

Participation during field excursions 10%

Homework & in-class work (✔, ✔**+**, ✔**-** basis) 10%

**ESS Grading Policy:** To counter grade inflation, ESS faculty have adopted a target that limits A grades to 35% of enrolled students. Barring exceptional circumstances, no more than 50% of any class will be awarded A/A- grades. You must be in the top half of the students in this course to earn an A/A- grade.