

writing. Introduces an additional 90 kanji.

Prerequisite: **Japanese 101** or permission of the instructor.

Japanese 203c. Intermediate Japanese I. Fall 2009. ASUKA HOSAKA.

An intermediate course in modern Japanese language, with introduction of advanced grammatical structures, vocabulary, and characters. Continuing emphasis on acquisition of well-balanced language skills based on an understanding of the actual use of the language in the Japanese socio-cultural context. Introduces an additional 100 kanji.

Prerequisite: **Japanese 102** or permission of the instructor.

Japanese 204c. Intermediate Japanese II. Spring 2010. ASUKA HOSAKA.

A continuation of **Japanese 203** with the introduction of more advanced grammatical structures, vocabulary, and characters.

Prerequisite: **Japanese 203** or permission of the instructor.

Japanese 205c. Advanced-Intermediate Japanese I. Fall 2009. ASUKA HOSAKA.

Increases students' proficiency in both spoken and written modern Japanese. A variety of written and audiovisual materials are used to consolidate and expand mastery of more advanced grammatical structures and vocabulary. Includes oral presentation, discussion, and composition in Japanese.

Prerequisite: **Japanese 204** or permission of the instructor.

Japanese 206c. Advanced-Intermediate Japanese II. Spring 2010. ASUKA HOSAKA.

A continuation and progression of materials used in **Japanese 205**.

Prerequisite: **Japanese 205** or permission of the instructor.

Japanese 307c. Advanced Japanese I. Fall 2009. MITSUKO NUMATA.

Designed to develop mastery of the spoken and written language. Materials from various sources such as literature, newspapers, and cultural journals as well as TV programs and films are used. Assigned work includes written compositions and oral presentations.

Prerequisite: **Japanese 206** or permission of the instructor.

Japanese 308c. Advanced Japanese II. Spring 2010. MITSUKO NUMATA.

A continuation of **Japanese 307**. Continued efforts to develop oral and written fluency in informal and formal situations. Reading of contemporary texts of literature, business, and social topics.

Prerequisite: **Japanese 307** or permission of the instructor.

Biochemistry

Anne E. McBride, *Program Director*
Jocelyn M. Lloyd, *Program Coordinator*

Professor: Bruce D. Kohorn (Biology)

Associate Professor: Anne E. McBride (Biology)

Assistant Professor: Danielle H. Dube (Chemistry)

Contributing Faculty: Richard D. Broene, Barry Logan**, Peter J. Woodruff

Laboratory Instructor: Kate R. Farnham

Note: Below is a list of required and elective courses for the major in Biochemistry. Please refer to the departments of Biology, Chemistry, Mathematics, and Physics for further

information, including course descriptions, instructors, and semesters when these courses will next be offered.

Requirements for the Major in Biochemistry

All majors must complete the following courses: **Biology 109, 224** (same as **Chemistry 231**), **232** (same as **Chemistry 232**), **263** (same as **Chemistry 263**); **Chemistry 109, 225, 226, 251; Mathematics 161, 171; Physics 103, 104**. Students are encouraged to complete the required biochemistry core courses by the end of their junior year so that they may take upper-level courses and participate in research in the senior year. Majors must also complete two courses from the following: **Biology 210** (same as **Environmental Studies 210**), **212, 214, 217, 218, 253, 257, 266, 304, 306, 307, 314, 317, 333, 401–404; Chemistry 210, 240, 252, 305** (same as **Environmental Studies 305**), **325, 331, 401–404; Physics 223, 401–404**. Students may include as an elective one 400-level course. Students taking independent study courses for honors in the biochemistry major should register for **Biochemistry 401–404**.

Bowdoin College does not offer a minor in biochemistry.

Advanced Courses

401a–404a. Advanced Independent Study and Honors in Biochemistry. THE DEPARTMENT.

Biology

Bruce D. Kohorn, *Department Chair*
Julie J. Santorella, *Department Coordinator*

Professors: Patsy S. Dickinson (Neuroscience), Amy S. Johnson, Bruce D. Kohorn (Biochemistry), Carey R. Phillips, Nathaniel T. Wheelwright†

Associate Professors: Philip Camill (Environmental Studies), John Lichter (Environmental Studies), Barry A. Logan**, Anne E. McBride (Biochemistry), Michael F. Palopoli**

Assistant Professors: Jack R. Bateman, Hadley Wilson Horch (Neuroscience), William R. Jackman

Visiting Faculty: Daniel J. Thornhill, Peter J. Woodruff

Director of Bowdoin Scientific Station on Kent Island: Damon P. Gannon

Laboratory Instructors: Pamela J. Bryer, Nancy J. Curtis, Kate R. Farnham, Janet Gannon, Stephen A. Hauptman, Nancy H. Olmstead, Jaret S. Reblin, Elizabeth Koski Richards, Peter E. Schlax

Requirements for the Major in Biology

The major consists of eight courses in the department exclusive of independent study and courses below the 100 level. Majors are required to complete **Biology 102** or **109**, and three of the twelve core courses. Core courses are divided into three groups. One course must be