Audiology and Speech Sciences—ASC

843C Hearing Amplification I
Fall. 3(3-0)
Historical and contemporary overview of personal amplification for individuals with hearing impairment. Emphasis on theoretical and clinical strategies for evaluating and fitting contemporary hearing aids.

843E Pediatric Audiology
Summer. 3(3-0) P.M: (ASC 843A and ASC 843B)
Audiologic diagnostic procedures for the pediatric population. Includes the impact of disabilities other than hearing loss.

843F Advanced Rehabilitative Audiology
Fall. 3(2-2) P.M: (ASC 443) RB: (ASC 894A or ASC 894B) R: Open only to graduate students in Audiology and Speech Sciences.
Impact of hearing impairment on communication processes. History of and current practices in intervention for children and adults who have hearing impairment.

843G Medical Aspects of Audiology
Fall. 3(3-0) R: Open only to graduate students in the Department of Audiology and Speech Sciences.
Nature and bases of hearing impairment, and management principles from a medical perspective.

843H Hearing Amplification II
Spring. 3(3-0)
Advanced theoretical and clinical strategies for evaluating and fitting contemporary hearing aids. Assistive listening devices, classroom amplification, hearing aid dispensing, and contemporary clinical and research issues in amplification.

843J Manual Communication for Clinical Settings
Summer. 3(3-0) P.M: (ASC 344)
Introduction to the use of manually coded English sign systems and Pidgin Sign English in diagnostic and treatment sessions.

890 Independent Study
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 8 credits in all enrollments for this course. R: Open only to M.A. students in Audiology and Speech Sciences. Approval of department. Individualized study under faculty direction.

901 Special Topics in Communication Sciences and Disorders
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Open only to graduate students in Audiology and Speech Sciences.
Topics vary.

902 Seminar in Communication Sciences and Disorders
Fall, Spring, Summer. 3(3-0) A student may earn a maximum of 12 credits in all enrollments for this course. R: Open only to graduate students in Audiology and Speech Sciences.
Topics vary.

904 Research Practicum in Communication Sciences and Disorders
Fall, Spring, Summer. 1 credit. A student may earn a maximum of 12 credits in all enrollments for this course. R: Open only to M.A. students in Audiology and Speech Sciences. Approval of department. Individual research under faculty supervision.

995 Doctoral Dissertation Research
Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 99 credits in all enrollments for this course. R: Open only to Ph.D. students in Audiology and Speech Sciences. Approval of department. Doctoral dissertation research.

BIOCHEMISTRY AND MOLECULAR BIOLOGY

BMB

Department of Biochemistry and Molecular Biology

College of Human Medicine
College of Natural Science
College of Osteopathic Medicine

100 Current Issues in Biochemistry
Spring. 1(1-0) R: Open only to freshmen or sophomores. SA: BCH 101 Not open to students with credit in BMB 100.
Description of topics in biochemistry research.

200 Introduction to Biochemistry
Fall. 4(4-0) P.M: (CEM 143) SA: BCH 200 Not open to students with credit in BMB 401 or BMB 461.
Basic structures of major classes of biologically important molecules and metabolic activities of major importance in living organisms.

401 Basic Biochemistry
Fall, Spring. 4(4-0) P.M: (CEM 252 or CEM 352) R: Not open to students in the Biochemistry or in the Biochemistry/Biotechnology major. SA: BCH 401 Not open to students with credit in BMB 200 or BMB 461.
Structure and function of major biomolecules, metabolism, and regulation. Examples emphasize the mammalian organism.

461 Biochemistry I
Fall. 3(4-0) P.M: (CEM 252 or CEM 352) and (BS 110) and (MTH 124 or MTH 132 or MTH 152H or LBS 118) and (BS 111L or LBS 145 or LBS 158H or LBS 159H) SA: BCH 461 Not open to students with credit in BMB 200 or BMB 401.
Protein structure and function, enzymology, bioenergetics, and intermediary metabolism.

462 Biochemistry II
Spring. 3(4-0) P.M: (BMB 461) SA: BCH 462
Continuation of BMB 461 with emphasis on metabolic regulation and nucleic acid structure, replication and protein synthesis.

471 Biochemistry Laboratory (W)
Spring. 3(0-9) P.M: (BMB 401 or BMB 461) and (BS 110 and CEM 262 and CEM 356 and CSE 101) and (MTH 124 or MTH 132 or MTH 152H or LBS 118) and (BS 111L or LBS 145 or LBS 158H or LBS 159H) and completion of Tier I writing requirement. SA: BCH 471
Biochemical methods and principles used in the study of enzymes (proteins), carbohydrates, lipids, and cell organelles.

472 Biochemistry Laboratory
Fall. 3(0-9) P.M: (BMB 462) and (CEM 262) R: Open only to Biochemistry or Biochemistry/Biotechnology majors or approval of department. SA: BCH 472
Methods of molecular biology and the underlying principles on which these methods are based.

490 Biochemistry Research
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 8 credits in all enrollments for this course. R: Total credits in BMB 490 and BMB 499 may not exceed 8. Approval of department. SA: BCH 490
Participation in laboratory or library research projects.

495 Undergraduate Seminar
Spring. 2(2-0) P.M: (BMB 462 or concurrently) R: Open only to students in the Biochemistry or Biochemistry/Biotechnology majors. SA: BCH 495
Extension and synthesis of concepts of biochemistry. Relationships to societal issues.
BS—Biological Science

College of Natural Science

110 **Organisms and Populations**
Fall, Spring. 4(3-3) Not open to students with credit in LBS 144 or LBS 148H. Biological diversity and organismal biology. Principles of evolution, population biology, and community structure.

111 **Cells and Molecules**
Fall, Spring. 3(3-0) P.M: (CEM 141 or CEM 151 or LBS 171 or CEM 181H) Not open to students with credit in LBS 145 or LBS 149H. Macromolecular synthesis; energy metabolism; molecular aspects of development; principles of genetics.