

CHECK LIST FOR THE B.S. DEGREE IN MICROBIOLOGY EMPHASIS IN CLINICAL LABORATORY SCIENCE AND PUBLIC HEALTH MICROBIOLOGY

Adviser: Dr. Jeanne Weidner (jweidner@sciences.sdsu.edu), 2004-2005 Catalog
(Use this as a worksheet. Refer to your catalog for official requirements.)

The emphasis in clinical laboratory science and public health microbiology is a State of California approved program of study that prepares students for Public Health Microbiologist and Clinical Laboratory Scientist academic certification and licensing examinations*. Students interested in this emphasis should check with the emphasis adviser before beginning coursework regarding the availability of required internships and other considerations.

PREPARATION FOR THE MAJOR (39 units of lower division courses)

Biol 201A	Principles of Cell & Molecular Biol.	4	___		Math 121	Calculus for the Life Sciences I	3	___
Biol 201B	Principles of Organismal Biology	4	___		Math 122	Calculus for the Life Sciences II	3	___
Biol 215	Biostatistics	3	___		Phys 180A	Fundamentals of Physics	3	___
Chem 200	General Chemistry	5	___		Phys 182A	Physical Measurements	1	___
Chem 201	General Chemistry	5	___		Phys 180B	Fund. Physics	3	___
Chem 231	Organic Chemistry (or 232 and 232L)	4	___		Phys 182B	Physical Measurements	1	___

The Biology and Microbiology majors are designated as **impacted majors**. All students who are admitted to SDSU and want to declare a biology major are placed in the Biology or Microbiology premajor. All premajors must meet department-specific criteria in order to declare a major, such as a specified minimum grade point average, completion of preparation for the major course requirements with qualifying grades, and satisfaction of the lower-division writing competency requirement. Students may not elect credit/no credit grading for course work needed to satisfy preparation for the major requirements. Students should refer to the year in which they declared a major for official requirements. Visit www.sdsu.edu/impactedmajors for more information. Note that admission to SDSU is a separate process and may require similar or additional requirements beyond impacted major requirements.

EMPHASIS IN CLINICAL LAB SCIENCE/PHM (Minimum of 36 upper division units)

Required courses (at least 31 units*):

Biol 350	General Microbiology	4	___		Biol 485	Principles of Immunology ²	3	___
Biol 352	General Genetics and Evolution	3	___			OR		
Biol 354	Ecology and the Environment	3	___		Biol 585	Cellular & Molecular Immunology ²	3	___
Chem 365	Biochem., Cell and Mol. Biol. I	3	___		Biol 549	Microbial Genetics & Physiology	3	___
Biol 366	Biochem., Cell and Mol. Biol. II	4	___		Biol 584	Medical Microbiology	3	___
Biol 366L	Biochem., Cell and Mol. Biol. Lab. I	2	___					
Biol 521L	Advanced Microbiology Laboratory ^{1,3}	3	___					

At least 6 units must be selected from the following (including Hematology):

Biol 521	Advanced General Microbiology ¹	2	___		Biol 569	Molecular Pharmacology ¹	3	___
Biol 551	Recombinant DNA ¹	3	___		Biol 590	Physiology of Human Systems	4	___
Biol 554	Molecular Virology	2	___		Biol 595	Computers in Biomedical Research ¹	3	___
Biol 555	Principles of Electron Microscopy	1	___		Biol 596	Parasitology ⁴	3	___
Biol 556	Scanning Electron Microscopy Lab.	2	___		Chem 431	Organic Chemistry	4	___
Biol 557	Transmission Electron Micro. Lab.	3	___		Chem 467L	Biochem., Cell and Mol. Biol II Lab	2	___
Biol 124	(CSUSacramento) Clinical Hematology*	3	___					

¹ Not all courses are taught each year; these courses may not be taught AY04-05.

² Biol 585 is not open to students with credit in Biol 485.

³ Biol 596 Microbial Ecology will substitute for Biol 521L AY04-05; see Bio Advisers about a substitute course for Fall 04.

⁴ Strongly recommended for Public Health microbiology.

* A hematology course is required for students seeking certification as a Clinical Lab Scientist.