

TUMS International Educational Affairs

Table A: Compensatory Courses of Biostatistics Ph.D. Program

Code	Title	Number of Credits		
		Sum	Theoretical	applied
01	Health Information Systems*	1	1/3	2/3
02	Biostatistical Inference	3	3	-
03	Biostatistical Inference 2	3	3	-
04	Biostatistical Inference 3	3	3	-
05	Survival Analysis in Medical Research	3	3	-
06	Design and Analysis of Clinical Trails	3	3	-
07	Applied Multivariate Analysis	3	3	-
Total		19		

Table B: Core Specialized Courses of Biostatistics Ph.D. Program

Code	Title	Number of Credits			Prerequisites
		Sum	Theoretical	applied	
08	Statistical Inference	3	3	-	-
09	Linear Models	3	3	-	-
10	Categorical Data Analysis	3	3	-	-
11	Survival Data Analysis	3	3	-	-
12	Stochastic Process	3	3	-	-
13	Design and Analysis of Clinical Trials	3	3	-	-
14	Thesis	20	-	-	-
Total		38			

Table C: Noncore Specialized Courses of Epidemiology Ph.D. Program

Code	Title	Number of Credits		
		Sum	Theoretical	applied
15	Advanced Statistical Methods in Epidemiology	3	3	-
16	Advanced Methods of Nonparametric Statistics	3	3	-
17	Statistical Learning Theory	3	3	-
18	Computational Bayesian Statistics	3	3	-
19	Statistical Analysis in Genetics	3	3	-
20	Large Sample Theory	3	3	-
21	Multivariate Statistical Analysis	3	3	-
22	Longitudinal Data Analysis	3	3	-
23	Special Topics	3	3	-
Total		27		

Students should pass 9 credits of the above table (Table C) with agreement of the supervisor.

Ph.D. Comprehensive Examination

The Ph.D. comprehensive examination is offered twice yearly. If the examination is not passed in the first attempt, it may be repeated one time. The examination consists of a two-day in-class component (two 3-hour examinations on consecutive days) and a follow-up oral-exam component. The in-class component contains a closed-book set of theory problems drawn from the Ph.D. required courses (please see above). The topic areas for the oral examination include topics covered by the in-class exam, as well as topics covered in Master's degree of Biostatistics courses. The primary focus of the oral-exam is to gauge the student's ability in presenting the statistical solution of a real-world public health or biomedical research problem.

Ph.D. Dissertation Proposal

The dissertation proposal describes the rationale for the proposed research and outlines its basic components. According to the joint interest of students and professional field of academic staff, supervisor assignments is done every years for new students. Prior to initiation of the research, the student defends her/his proposal via a public presentation in the department. Then, the proposal is submitted to the department's research committee members (consisting of a dissertation advisor, department's head, and department education and research representatives) for the final evaluation. A written approval by all committee members is required.

Dissertation Defense

The student and the dissertation committee are required to comply with the School of Public Health guidelines with regard to preparation of the dissertation and meeting deadlines for graduation. The pre-defense session is a necessary prerequisite. During the dissertation defense, the dissertation committee will thoroughly examine the student's knowledge in the content area of the research.