

Basic Medical Sciences (BMS) Curriculum Courses

Core Courses

Department	Course #	Course Name	Credits	Term Offered
BMB	7010	General Biochemistry Lecture	4	Fall
CB	7210	Fundamentals of Cancer Biology	4	Fall
IM	7010	Fundamentals of Immunology	2	Winter
IM	7020	Fundamentals of Microbiology	2	Winter
IM	7030	Molecular Biology of Viruses	2	Winter
MGG	7010	Molecular Genetics & Genomics	4	Fall
PHC/BIO	7410/7011	Principles of Toxicology	3	Fall
PHC	7010	Introduction of Pharmacology	4	Winter
PSL	7010	Basic Graduate Physiology I	4	Fall
PSL	7030	Basic Graduate Physiology II	4	Winter
PYC	7010	Molecular Neuropsychopharmacology	3	Fall
BIO	6000	Molecular Cell Biology I	3	Fall
CHM	6620/7620	Metabolism (in lieu of BMB7010)	3	Fall

Elective Courses

Department	Course #	Course Name	Credits	Term Offered
ANA	7055	Biology of the Eye	3	Fall
	7065	Mechanisms of Ocular Disease	2	Winter
	7075	Mechanisms of Ocular Disease 2	2	Fall
	7080	Human Embryology	3	Fall
	7260	Special Dissection	2 to 10	Every Term
	7270	Special Projects in Anatomy	2 to 10	Every Term
	7890	Seminar	1	Every Term
	7996	Research	1 to 15	Every Term

BMB	7320	Protein Structure and Function	3	Winter
	7330	Advanced Molecular Biology	2	Winter

BMS	6550	Medical Anatomy for Health Professionals	4	Spring/Summer
	7880	Special Topics/Projects	1 to 4	Every Term
	7999	Essays in Basic Medical Science	3	Every Term

CB	7210	Fundamentals of Cancer Biology	4	Fall
	7220	Molecular Biology of Cancer Development	4	Winter
	7240	Molecular Mechanisms of Cancer and Therapy	4	Fall
	7300	Special Topics in Cancer Biology	1 to 3	Winter
	7430	Cancer Epidemiology	2	Fall
	7600	Applied Cancer Biostatistics	2	Winter
	8910	Applied Cancer Bioinformatics	1	Fall

***ALL FPH courses require
override approval from the
course instructor**

FPH	7012	Social Justice in Public Health	3	Winter
	7015	Biostatistics	3	Fall, Winter (online), SP/S
	7020	Biostatistics II		Fall, Winter
	7100	Health Care Organization and Administration	3	Winter, Spring/Summer
	7230	Health Program Evaluation	3	Fall
	7240	Epidemiology	3	Fall, Winter, Spring/Summer
	7250	Health Data Analytics	3	Spring/Summer
	7350	Advanced Statistical Programming	2	Winter
	7420	Principles of Environmental Health	3	Fall
	7760	Community Health Education	3	Spring/Summer (Alternate Years)
	7210	Research Methods for Public Health Professionals	3	Fall, Spring/Summer

**Pre-requisites:
FPH 7350**

**FPH 7350
FPH 7015**

FPH 7015

IMM	7450	Current Trends in Immunology	1 to 5	Irregular
	7650	Current Trends in Host-Microbiome Interactions	2	Irregular

PSL	5680	Basic Endocrinology	3	Fall
	6010	Physiology of Exercise II	3	Fall
	6300	Biotechnology: Techniques and Applications	2	Fall
	7215	Nanobioscience	3	Winter
	7400	Sleep & Breathing in Health and Disease	2	Winter, every 2 years
	7420	Organizing & Communicating Hypothesis Testing in Physio	2	Winter
	7550	Advanced Renal Physiology	2	Fall every 2 years
	7600	Advanced Cardiovascular Physiology	2	Fall
	7640	Cell and Molecular Physiology	3	Winter, every 2 years
	7660	Neurophysiology	3	Fall, every 2 years
	7680	Endocrinology	4	Winter

PSL cont.	7690	Principles and Techniques of Reproductive Biology	3	Fall, every 2 years
	7700	Embryonic Stem Cell Biology	3	Winter, every 2 years
	7710	Disease States and Reproductive Processes	1	Spring/Summer
	7730	Reproductive Sciences: Teratology	3	Fall, every 2 years
	7890	Seminar	1	Fall, Winter
	7880	Special Problems in Physiology	1 to 8	Every Term
	7825	Membrane Physiology	2	Winter, every 2 years
	7775	Current Research Topics in Reproductive Science	3	Winter
	7996	Arranged Research	1 to 15	Every Term

MGG	7030	Functional Genomics and Systems Biology	2	Winter
	7015	Introduction to Genetics	2	Fall
	7020	Metabolism and Disease	2	Fall, every other year
	7040	Molecular Organelle Physiology	2	Winter, every other year
	7050	Bioinformatics: Theory and Practice	3	Winter
	7100	Biostatistics with R	2	Fall
	7400	Molecular Biology of Cellular Signaling	2	Winter, every other year
	7600	Advanced Human Genetics	3	Winter
	8770	Molecular Biology of Mitochondrial Disease	2	Winter

PHC	7240	Principles of Cancer Therapy	2	Irregular
	7650	Advanced Topics in Pharmacology	1 to 3	Every Term
	7700	Recent Developments in Pharmacology	1	Every Term
	7996	Research	1 to 10	Every Term
PYC	7140	Fundamentals of Neuroimaging	3	Fall
	7150	Fundamentals of Neuropsychiatric Disorders	3	Fall
	7515	Advanced Topics: Imaging, Neurodevelopment, Psychiatric Disorders	3	Every 2 Years (Winter)
	7595	The Gut Microbiome & Translational Neuroscience	3	Every 2 Years (Fall)

ROC					
	6710	Physics in Medicine	3	Winter	
	7000	Imaging Physics	4	Fall	
	7010	Imaging Physics II: Nuclear Medicine	2	Winter	
	7020	Physics of Radiation Therapy	3	Winter	
	7040	Radiation Dosimetry	2	Winter	
	7060	Applied Radiobiology in Radiological Science	2	Fall	Prerequisites
	7070	Radiation Safety	2	Spring/Summer	ROC7000
	7080	Radiotherapy Physics Laboratory	2	Spring/Summer	ROC5010
	7110	Treatment Planning	2	Fall	ROC5010
	7120	Radionuclide Therapy	2	Fall	
	7130	Nuclear Medicine Physics Laboratory	2	Spring/Summer	
	7160	Advanced Topics in Medical Physics	2	Winter	ROC7020
	7890	Seminar	1	Fall	ROC7020
	7990	Essay Direction	1 to 5	Every Term	ROC7020
	8990	Special Problems in Radiation Biophysics	1 to 7	Every Term	ROC7010