

NEUROSCIENCES AND NEUROLOGICAL DISORDERS, MSBS

Code	Title	Hours
BMSP 6330	Current Problems and Research Approaches in Proteins	2
BMSP 6340	Curr Prob Res App Genes/Genom	2
BMSP 6360	Current Problems and Research Approaches in Cell Membranes	2
BMSP 6380	Methods in Biomedical Sciences	2
BMSP 6390	Mentored Research	2
BMSP 6470	System Pathophysiology	4
BMSP 6350	Cell Biology & Signaling	3
BMSP 5320	Statistical Methods I	3
NNDP 6500	Seminar in Neuroscience	1
NNDP 6730	Research in NNDP	3
NNDP 6990	Thesis Research Neurosci Neuro	10
INDI 6020	On Being a Scientist	1
Electives		5
Total Hours		40

First Year

First Term		Hours
BMSP 6330	Current Problems and Research Approaches in Proteins	2
BMSP 6340	Curr Prob Res App Genes/Genom	2
BMSP 6360	Current Problems and Research Approaches in Cell Membranes	2
BMSP 6380	Methods in Biomedical Sciences	2
BMSP 6390	Mentored Research	1
Hours		9

Second Term

BMSP 6470	System Pathophysiology	4
BMSP 6350	Cell Biology & Signaling	3
NNDP 6500	Seminar in Neuroscience	1
BMSP 6390	Mentored Research	1
Hours		9

Third Term

BMSP 5320	Statistical Methods I	3
INDI 6020	On Being a Scientist	1
NNDP 6730	Research in NNDP	3
Hours		7

Second Year

First Term

NNDP 6990	Thesis Research Neurosci Neuro	6-9
and/or electives		0-3
Hours		6-12

Second Term

NNDP 6990	Thesis Research Neurosci Neuro	6-9
and/or electives		0-3
Hours		6-12

Third Term

NNDP 6990	Thesis Research Neurosci Neuro	3-6
and/or electives		0-3
Hours		3-9
Total Hours		40-58

- 1. Identify and summarize the structure and function of cells, tissues, and organs.
- 2. Describe the molecular, biochemical, and cellular mechanisms that maintain the normal function, development, and plasticity of cells, tissues, and organs.
- 3. Summarize basic disease causes and processes that affect the structure and function of cells, tissues, and organs.
- 4. Assess and critically analyze relevant basic science and clinical literature.
- 5. Design and conduct applicable biomedical sciences experiments.
- 6. Organize, interpret and summarize results of applicable biomedical sciences experiments.
- 7. Demonstrate ethical and responsible conduct in research and all other scholarly activities consistent with the University of Toledo, Health Science Campus, Standards of Conduct (Policy 01-027).
- 8. K2 Knowledge of molecular, biochemical, and cellular mechanisms which are important in homeostatic maintenance of normal nervous system function.
- 9. K3 Knowledge of the basic neurophysiology of excitable membranes.
- 10. K4 Knowledge of neurophysiological basis of behavior in health and disease.
- 12. . K9 Knowledge of the use of statistical methods in the appropriate design, analysis and interpretation of research projects.
- 13. S3 The ability to design and complete independent research projects, and the ability to perform productively as a member of a research team.
- 14. S4 The ability to communicate effectively, both orally and in writing, with colleagues, faculty, scientific journal editors/reviewers, and research granting agencies.
- 15. P5 Compassionate treatment of experimental animals, and respect for all laws and regulations applicable to the use of animals in biomedical research.