**MBSP - Molecular Biosciences Program**

**MBSP 561 Molec Biosci Lab Rotation I: 1 Credits (2 Lab)**
Each Molecular Biosciences Program graduate student will complete three laboratory rotations during their first year of graduate study. Each Laboratory Rotation provides students with a six-week period of active research experimentation time. Each Laboratory Rotation is a mini-research project and is designed to allow the student to explore a potential avenue of research for their thesis/dissertation research project in Years 2 and beyond. Students should become familiar with the relevant literature, concepts, methods, reagents, and instruments that will be needed to conduct their experiments and achieve the goals of their research projects. Extensive bench research time will be required to obtain meaningful results. Repeatable up to 1 credits.

**MBSP 562 Molec Biosci Lab Rotation II: 1 Credits (2 Lab)**
Each Molecular Biosciences Program graduate student will complete three laboratory rotations during their first year of graduate study. Each Laboratory Rotation provides students with a six-week period of active research experimentation time. Each Laboratory Rotation is a mini-research project and is designed to allow the student to explore a potential avenue of research for their thesis/dissertation research project in Years 2 and beyond. Students should become familiar with the relevant literature, concepts, methods, reagents, and instruments that will be needed to conduct their experiments and achieve the goals of their research project. Extensive bench research time will be required to obtain meaningful results. Repeatable up to 1 credits.

**MBSP 563 Molec Biosci Lab Rotation III: 1 Credits (2 Lab)**
Each Molecular Biosciences Program graduate student will complete three laboratory rotations during their first year of graduate study. Each Laboratory Rotation is a mini-research project and is designed to allow the student to explore a potential avenue of research for their thesis/dissertation research project in Years 2 and beyond. Students should become familiar with the relevant literature, concepts, methods, reagents, and instruments that will be needed to conduct their experiments and achieve the goals of their research project. Extensive bench research time will be required to obtain meaningful results. Repeatable up to 1 credits.

**MBSP 564 Molec Biosci Lab Rotation IV: 1 Credits (2 Lab)**
Each Molecular Biosciences Program graduate student will complete three laboratory rotations during their first year of graduate study. Each Laboratory Rotation is a mini-research project and is designed to allow the student to explore a potential avenue of research for their thesis/dissertation research project in Years 2 and beyond. Students should become familiar with the relevant literature, concepts, methods, reagents, and instruments that will be needed to conduct their experiments and achieve the goals of their research project. Extensive bench research time will be required to obtain meaningful results. Repeatable up to 1 credits.

**MBSP 575 Mol BioSci Prgm Rsch Project: 1 Credits (2 Lab)**
This course will fulfill the research requirement of the first year Molecular Biosciences Program (MBSP) doctoral fellows. The fellow (students) will work on a research project under the direction of their advisor.

**MBSP 579 Programming for Life Scientist: 3 Credits (2 Lec, 2 Lab)**
PREREQUISITE: Permission from the Molecular Biosciences Program. The purpose of this course is to provide students with all the knowledge needed to design and then write (or program) data analysis toolkits on their computer. Programming is needed to process vast amount of information by filtering, correlating, aggregating it, tremendously speeding up analyses.

Graduate Studies Department