

Department of Mathematics & Statistics

| 17015B Mathematical Sciences – | MAS 5107 Matrix Theory | STA 5326 Math Stat II | MAD 6405 Numerical Analysis | STA 6247 Design | STA 5207 Regression | MAP 6108 Math Modeling | MAA 5404 Analytic Functions | MAP 6106 Operations Research I | STA 6707 Multivariate | MAP 5345 Partial DE | MAT 6930/ STA 6930 Proseminar |
|--|---------------------------------------|----------------------------------|--|----------------------------|--------------------------------|---------------------------------------|--|---|----------------------------------|--------------------------------|--|
| Domains/SLOs: | | | | | | | | | | | |
| Content | | | | | | | | | | | |
| 1. Recognize and apply principles of abstract mathematics | X | | | | | | X | | | | |
| 2. Describe and use principles of computational and applied mathematics | | | X | | | X | | | | | |
| 3. Recognize and use principles of theoretical and applied statistics | | X | | X | | | | X | X | X | |
| 4. Identify career options related to training in math and statistics | | | | X | X | X | | X | | | |
| Critical Thinking | | | | | | | | | | | |
| 1. Analyze the essentials of a problem logically and independently | X | | | X | | X | X | X | X | | |
| 2. Choose and execute calculation and manipulation strategies that are relevant to mathematics with relatively little guidance | X | X | X | | X | X | | X | | | |
| 3. Select and apply appropriate mathematical tools and techniques | | | X | | | | X | X | | | |
| 4. Solve mathematical problems | X | X | X | X | X | X | X | X | X | X | X |
| 5. Use information technology appropriately to conduct research | X | X | X | X | X | X | X | X | X | X | X |
| 6. Transfer knowledge from one context to another | | X | | | | X | | X | | X | X |
| Communication | | | | | | | | | | | |
| 1. Write coherent and accurate reports of mathematical processes and problems | | | | | | X | | X | | | X |
| 2. Deliver oral presentations that explain math concepts or defend mathematical arguments effectively and accurately | | | X | | X | X | | | | | X |
| Integrity/Values | | | | | | | | | | | |
| 1. Recognize ethical components in complex situations | X | X | | | | | | X | | | |
| 2. Analyze complex ethical situations and design appropriate solutions | | | | X | | X | | X | | | X |
| Project Management | | | | | | | | | | | |
| 1. Work toward solutions with persistence and relatively little guidance | | | | | | | | | | | X |
| 2. Manage time and resources effectively | | | X | | | X | | | | | X |
| 3. Collaborate with team members smoothly and effectively | | | X | X | | X | | | X | | |
| Teaching Skills | | | | | | | | | | | |
| 1. Plan and execute math course activities appropriate for secondary and higher education settings | | | | | | | | | | | X |
| 2. Manage classroom dynamics to promote student learning | | | | | | | | | | | X |