The Minor in Mathematics is designed to enable a student with a significant interest in Mathematics to deepen their knowledge while pursuing a major in another field. While the major will often be in a field which makes significant use of mathematics, such as a science or a quantitative social science, it may be in any area of study. Students from outside LS\&A, for example those from the College of Engineering, may also pursue a Minor in Mathematics. LS\&A regulations allow Advanced Placement credits and prerequisites for the major to count also as prerequisites for the minor. For students enrolled in LS\&A, only one course may be shared between the requirements of a minor and the requirements of a major. This rule does not apply to students enrolled outside of LS\&A. Courses used to meet the requirements of a minor may not be taken pass/fail. All courses for the minor program must be completed with a grade of at least a C-

A student must select at least 5 courses consisting of at least 1 basic course and at least 2 upper-level courses.

Prerequisites** (2 courses) \{must be completed with C- or better\}


| Instructions | C |
| :--- | :---: |
| Select one of the following pairs <br> of introductory mathematics <br> courses: | $M$ |
|  | $M$ |

** The prerequisite to a Minor in Mathematics is one of the sequences Math 115-116, 175-176, 185-186, or 295-296; or Math 156. These all provide a thorough grounding in the calculus of functions of one variable.
Advanced Placement credits in Math 120 and 121 also fulfill the prerequisite requirement.

Basic Courses** (1-3 courses) \{must be completed with C - or better\}

| Instructions | Course(s) | Student Elections <br> (enter your course selections here) |
| :--- | :--- | :--- |
| You may choose one of the following <br> Multivariable Calculus courses: | Math 215 <br> Math 285 | $\mathbf{1 .}$ |
| You may choose one of the following <br> Linear Algebra courses: | Math 214 <br> Math 217 <br> Math 417 <br> Math 419 | $\mathbf{2 *}^{*}$ |
| You may choose one of the following <br> Differential Equations courses: | Math 216 <br> Math 286 | $\mathbf{3}^{*}$. |

**No more than 3 total courses may be elected from the Basic Courses. Students may elect only one course from each available area (e.g. a student can elect both 215 \& 217 but may not elect both 217 \& 417). Engineering students are encouraged to include a linear algebra course in their minor selections.
III. Upper Level Courses** (2-4 courses) \{must be completed with C- or better\}

${ }^{* *} A$ student may elect between 2-4 Upper level courses. The upper level courses are not restricted, such that a student may elect multiple courses from the same area (e.g. electing both Math 433 and Math 490 in the Geometry \& Topology area is acceptable.

All courses carry 3 or 4 credit hours and the total number of required credit hours is between 15 and 18. Per LSA rule, LSA students must take at least 9 credits in-residence. All in-residence credits must be taken from the Mathematics Department.

In all cases, more advanced courses may be substituted with the approval of a math advisor. In particular, students who have satisfied the prerequisite with the honors sequence Math 295-296 or 217-297 will need to consult an advisor for the proper selection of courses. Other modifications can also be made with the approval of a math advisor. Finally, classes offered outside of Mathematics cannot be used to satisfy the requirements of the minor

