BS/MA in Mathematics Secondary Education (4+1) - plan of study (assumes no AP calculus or other credit, and standard language placement)

> Bold $=$ major requirement
> Italics $=$ Liberal Arts Curriculum Requirement
> Double Asterisk** $=$ double-count

|  | Fall | Spring |
| :---: | :---: | :---: |
| Freshman | $\begin{gathered} \text { Math } 121 \\ \text { Phil } 201 \\ \text { TRS } 201 \text { / Eng } 101 \\ \text { Language } 103 \\ \text { LAC elective 1 } \end{gathered}$ | Math 122 Phys 215 Phil 202 TRS 201 / Eng 101 Language 104 |
| Sophomore | Math 221 <br> Phys 216 <br> Educ 271 <br> HSSS 203 <br> TRS 202 | Math 248 <br> Math 301 <br> Educ 251 <br> TRS 357A <br> Science elective |
| Junior | Math 321 <br> Math 222 <br> Educ 586** <br> CSC 1 <br> LAC elective 2 | Math 403 <br> Math 322/424/400+ <br> CSC 2 <br> Educ 582** <br> LAC elective 3 |
| Senior | Math 421 <br> Math 431 <br> Science elective LAC elective 4 Free Elective also: Math 498 (comps - 0 credits) | Math 424/400+ Math 500+** LAC elective 5 Science elective Educ 702** |
| Summer | Educ 525 | Educ 699 |
| Grad year | Educ 579 <br> Educ 581 <br> Math 500+ | Student Teaching: <br> Educ 500, 561, 562, 563 |


| Math-BS Course list (40 courses) |  |
| :--- | :--- |
| Math (13) | Liberal Arts (13) |
| Math 121 | Phil 201 |
| Math 122 | Phil 202 |
| Math 221 | Phil elective |
| Math 222 | TRS 201 |
| Math 248 | TRS 202 |
| Math 301 | TRS 357A |
| Math 321 | ENG 101 |
| Math 421 | Literature LAC |
| Math 424 | Fine Arts LAC |
| Math 403 | History LAC |
| Math 431 | Social Sci. LAC |
| Math 500+** | Language 103 |
| Math 322 or | Language 104 |
| other 2nd-level |  |
| elective | Free Electives (6) |
| "500+" means any | Educ 251 |
| Educ 271 |  |
| 500-level Math | Educ 582** |
| Science (8) | Educ 586** |
| Phys 215 | Educ 702** |
| Phys 216 | Free elective 1 |
| HSSS 203 (stats) |  |
| Science Elective |  |
| Science Elective |  |
| Science Elective |  |
| Two CSC |  |
| Core (7) |  |
| Educ 525 | Math-specific (3) |
| Educ 582** | Educ 579 |
| Educ 586** | Math 500-level** |
| Educ 702** | Math 500-level |
| Educ 581 | Student Teaching (4) |
| Educ 699 | Educ 500, 561, 562, |
| Educ 765 (14 courses) |  |

- The first two years are identical to the BS in Math Secondary Education, which is presumed to be the initial degree program for students who elect to pursue the $4+1$.
- LAC Electives (5) = Literature, Fine Arts, Philosophy, History/Politics, Social Science
- Two CSC classes chosen from among: CSC 113, 123, 124, 212, 223
- Electives can be moved around of course. Most bold courses are only offered in the semester they are shown. (Exceptions: Math 121, 122, 221 are offered in both terms; science electives are electives that can be taken anytime.) EDUC courses are all semester-specific.
- Only four graduate courses taken during the undergraduate career can "double-count" towards the MA degree. But a student who completes the BS requirements ( 40 courses) early, through means such as AP credits or overelection, can take additional graduate-level coursework during their undergraduate career; any such courses would only count for progress towards the MA degree.
- This lists the 500-level math class as an elective, but in fact any of the required 400-level math courses can be taken at graduate level instead. Some specific options for upper-level math sequence include the following, although there are certainly many other arrangements possible. For instance:

1. 

|  | Fall | Spring | This is the best option if one wants to leave open the option to <br> switch back to the 4-year MATHSEC-BS plan after Jr spring. |
| :---: | :---: | :---: | :--- |
| Junior | 321 | 403 |  |
| Senior | 422 | 424 | $400+$ |
|  | 531 | 432 | The math graduate course is in the semester where there is no |
| graduate education course. |  |  |  |

2. 

|  | Fall | Spring | 322 satisfies the "second course" requirement. |
| :---: | :---: | :---: | :--- |
| Junior | 321 | 322 <br>  |  |
| Senior | 422 | 503 |  |
|  | 431 | $400+$ |  |

3. 

|  | Fall | Spring | 322 satisfies the "second course" requirement. Similar to option \#2 except that the probability course $431 / 531$ (required for licensure) is delayed until grad year, in favor of some other senior fall math elective. |
| :---: | :---: | :---: | :---: |
| Junior | $\begin{aligned} & 321 \\ & 222 \end{aligned}$ | $\begin{aligned} & 322 \\ & 503 \end{aligned}$ |  |
| Senior | $\begin{gathered} 421 \\ 400+ \end{gathered}$ | $\begin{gathered} 424 \\ 400+ \end{gathered}$ |  |
| Grad | 531 |  |  |

