University College Bachelor of Science in  
MATHEMATICS/APPLIED MATHEMATICS (U20)  
Advisor ____________

Student ID#___________________ Student Name___________________________________ Email _______________________________________________

<table>
<thead>
<tr>
<th>Units</th>
<th>Course Description</th>
<th>Transfer Credits</th>
<th>Completed at WU</th>
<th>In Progress</th>
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</thead>
<tbody>
<tr>
<td><strong>BASIC REQUIREMENTS</strong> – Ecomp 111 and 203 requirements should be satisfied by the time you have completed your first 18 units.</td>
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</table>
| 9     | English Composition  
- U11 111 Analytical Writing  
- U11 203 Critical and Researched Writing  
- Advanced writing course—choose one:  
  o U11 304 Exposition  
  o U11 3120 Argumentation  
  o U11 324 Writing for Public Speaking  
  o U11 331 Technical Writing | Max 84 (66 from a 2 year college) | | |
| 3     | Cultural Diversity  
Designated by CD attribute on course listing | | | |
| 3     | Moral Reasoning  
Designated by ML attribute on course listing | | | |
| 3     | Numerical Applications |
| **DISTRIBUTION REQUIREMENTS** - A maximum of six units of credit from the same discipline may apply toward any distribution requirement. |
| 9     | Humanities  
Courses from Art History, Classics, History, Literature, Philosophy, and Religious Studies | | | |
| 9     | Social Sciences  
Courses from Anthropology, Economics, History, Political Science, Psychology, and Sociology | | | |
| 9     | Natural Sciences and Mathematics  
Courses from Biology, Chemistry, Earth & Planetary Sciences, Mathematics, Physics, and other Sciences | | | |
| 9     | Languages and the Arts  
Courses from Creative Writing, Dance, Drama, Film Studies, Foreign Languages, Music, Speech, and Studio Art | | | |
### MAJOR REQUIREMENTS

At least half the credits for the major and at least 30 units of advanced (300-400 level) courses must be completed at Washington University.

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<tr>
<td>12-15</td>
<td><strong>Required Courses</strong>&lt;br&gt;• U20 155 Calculus I&lt;br&gt;• U20 156 Calculus II&lt;br&gt;• U20 255 Calculus III&lt;br&gt;• U20 256 Calculus IV&lt;br&gt;Also required for Applied Mathematics program&lt;br&gt;• U20 133 Programming in Python</td>
<td>Max 84 (66 from a 2 year college)</td>
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<td>18</td>
<td><strong>Upper Level Course Requirements</strong>&lt;br&gt;• Upper-level (300-400 level) math courses&lt;br&gt;• Students are also encouraged to take U20 Math 3101&lt;br&gt;Foundations for Higher Mathematics as one of these courses.</td>
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<td><strong>General Electives</strong></td>
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### UNOFFICIAL EVALUATION

Total earned units of credit (120 required for the Bachelor of Science):
**BASIC REQUIREMENTS** (in effect Spring 2019)

A single course can count toward any two of the following categories: major requirements; basic requirements for numerical applications, cultural diversity, or moral reasoning; distribution requirements.

**English Composition** (9 units of credit)

All required English Composition courses must be completed at Washington University with a minimum grade of C.

- U11 111 Analytical Writing
- U11 203 Critical and Researched Writing
- Advanced writing course—choose one:
  - U11 304 Exposition
  - U11 3120 Argumentation
  - U11 324 Writing for Public Speaking
  - U11 331 Technical Writing

**Cultural Diversity** (3 units of credit)

Courses that satisfy the cultural diversity explore issues of global human diversity and the interactions among cultures, with a focus on societies of Africa, East Asia, South Asia, Latin America, or the Middle East, or indigenous peoples of the Americas. Designated by CD on course listings.

**Moral Reasoning** (3 units of credit)

Designated by ML on course listings.

**Numerical Applications** (3 units of credit)

Numerical Applications course must be completed with a minimum grade of C.

- Any course from the Math department, including statistics and programming courses, except U20 140 Algebra
- U03 117 Quantitative Reasoning
- U07 231 Economic Statistics
- U09 300 Introductory Psychological Statistics
- U25 323 Introduction to Quantitative Methods

**DISTRIBUTION REQUIREMENTS**

A maximum of six units of credit from the same discipline may apply toward any distribution requirement. A given History course may satisfy either the Humanities or Social Sciences requirement, but not both. Please seek advisor approval if you are unsure whether a course satisfies a particular requirement.

**Humanities** (9 units of credit)

Art History, Classics, History, Literature, Philosophy, and Religious Studies

**Social Sciences** (9 units of credit)

Anthropology, Economics, History, Political Science, Psychology, and Sociology

**Natural Sciences and Mathematics** (9 units of credit)

Biology, Chemistry, Earth and Planetary Sciences, Mathematics, Physics, and Science

**Languages and the Arts** (9 units of credit)

Creative Writing, Dance, Drama, Film Studies, Foreign Languages, Music, Speech, and Studio Art

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**MAJOR IN MATHEMATICS**

**Required Courses** (12 units of credit)

- U20 155 Calculus I
- U20 156 Calculus II
- U20 255 Calculus III
- U20 256 Calculus IV

Also required for Applied Mathematics program

- U20 133 Programming in Python

**Upper Level Course Requirement** (18 units of credit)

- 18 units of 300- and 400-level mathematics courses

Students in the traditional math major are encouraged to take Math 3101, Foundations for Higher Mathematics. This is a day school course designed to introduce students to the language and conventions of mathematical discourse. University College math majors may enroll in this course at the University College tuition rate. In addition, you should select relevant courses in the social and physical sciences to complement and augment your major.

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**ADDITIONAL DEGREE REQUIREMENTS**

**GPA requirements:** To receive the Bachelor of Science degree, you must maintain a 2.0 cumulative GPA and receive a grade of C- or better in all courses applied to your major.

**Residency Requirement:** You must complete the final 36 units of credit work toward the Bachelor of Science degree at Washington University. At least half the credits for the major and at least 30 units of advanced (300-400 level) courses must be completed at Washington University.