on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

Visit the academic regulations section for additional information on academic regulations for graduate students. (http://bulletin.vcu.edu/academic-regs/)

Degree candidacy requirements
A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master’s or doctoral status according to the degree candidacy requirements of the student’s graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student’s faculty regarding the student’s academic achievements and the student’s readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

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Graduation requirements
As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

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Admission requirements

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In addition to the general admission requirements of the VCU Graduate School (http://bulletin.vcu.edu/graduate/study/admission-graduate-study/admission-requirements/), the following requirements represent the minimum acceptable standards for admission:

1. Thirty credit hours in undergraduate mathematical sciences, computer science or related areas of which at least 18 credit hours must represent upper-level courses
2. Three letters of recommendation pertaining to the student’s potential ability as a graduate student in mathematical sciences

Student learning outcomes
1. Students will demonstrate a comprehensive understanding of basic statistical concepts, probability and inference, general linear modeling, calculus, and linear algebra.
2. Students will know how to select appropriate samples and conduct appropriate experimental data collection methods.
3. Students will be able to perform appropriate analysis of data, including knowledge of the assumptions associated with the procedures and how to determine the appropriate procedure to use.
4. Students will be able to use statistical software packages to solve various problems.
5. Students will know how to clearly and concisely present technical information in writing and through oral presentations.

VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs
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It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website (http://www.graduate.vcu.edu/) and academic regulations in individual school and department publications and

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It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website (http://www.graduate.vcu.edu/) and academic regulations in individual school and department publications and
Provisional admission may be granted when deficiencies exist. These deficiencies must be removed by the end of the first year of residence, or its part-time equivalent, when the student’s application will be re-examined. Courses that are remedial or designed to remove deficiencies will not be accepted for credit hours toward the fulfillment of the course requirements for the master’s degree.

Degree requirements
In addition to the VCU Graduate School graduation requirements (http://bulletin.vcu.edu/academic-regs/grad/graduation-info/), students are required to complete course work in core and elective courses and to meet the following requirements.

1. Credit hour requirements: Students in the M.S. in Mathematical Sciences program are required to earn a minimum of 30 graduate-level credit hours. At least one-half of the credit hours presented for graduation must be at the 600 level or higher.

2. Other requirements: All students must pass two comprehensive examinations: statistical theory (covering STAT 513 and STAT 514) and statistical application (covering STAT 546, STAT 642 and STAT 643). All students will be given two attempts to pass each exam.

Curriculum requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSOR 690</td>
<td>Research and Communications Seminar</td>
<td>3</td>
</tr>
<tr>
<td>STAT/BIOS 513</td>
<td>Mathematical Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>STAT/BIOS 514</td>
<td>Mathematical Statistics II</td>
<td>3</td>
</tr>
<tr>
<td>STAT 546</td>
<td>Linear Models</td>
<td>3</td>
</tr>
<tr>
<td>STAT 642</td>
<td>Design and Analysis of Experiments I</td>
<td>3</td>
</tr>
<tr>
<td>STAT 643</td>
<td>Applied Linear Regression</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional courses
Statistics electives (Choose courses from list one below.) | 6
Statistics and allied fields electives (Choose courses from list two below.) | 6

Total Hours | 30

If student previously received credit for STAT 513/BIOS 513 and/or STAT 514/BIOS 514 or their equivalents, then one or two other statistics courses must be taken in their place.

The minimum total of graduate credit hours required for this degree is 30.

List one: recommended electives in statistics

<table>
<thead>
<tr>
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<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 508</td>
<td>Introduction to Social Statistics</td>
<td></td>
</tr>
<tr>
<td>STAT 543</td>
<td>Statistical Methods I</td>
<td></td>
</tr>
<tr>
<td>STAT 544</td>
<td>Statistical Methods II</td>
<td></td>
</tr>
<tr>
<td>STAT 608</td>
<td>Statistics for Social Research</td>
<td></td>
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</table>

List two: recommended electives in statistics and allied fields

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<td>500-, 600- or 700-level MATH, OPER, STAT or SYSM courses, except the following:</td>
<td></td>
<td></td>
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