INTEGRATED MATHEMATICS
MAJOR/SINGLE SUBJECT CREDENTIAL PROGRAM

Units required for Major and Credential: 90

Program Description

Teaching credential candidates must complete the Professional Education Program in addition to other requirements for a teaching credential. Consult the Department credential advisor for details. You may also obtain information about the Professional Education Program from the Teacher Preparation and Credentials Office, Eureka Hall 216, (916) 278-6403.

Students in the Integrated Mathematics Major/Single Subject Credential Program (also called the Blended Program in Mathematics) begin their pedagogical studies while they are completing the mathematics courses required for the Bachelor’s degree in Mathematics. The mathematics requirements include all of the courses required for the subject matter program in mathematics (see above), and MATH 198. Students who are interested in being admitted to the Blended Program in Mathematics must plan ahead, and must see their advisor as soon as possible.

Note: Due to continuing policy changes, it is important to consult a credential advisor for current details.

Admission Requirements

Admission requirements for the Blended Program include junior class standing with a minimum overall GPA of 2.67, a grade of "C-" or better in MATH 108, passing the Writing Placement for Juniors Exam (WPJ), spending and documenting at least 45 hours observing classes, tutoring, or teaching in a variety of settings in grades 7-12, taking all three sections of the California Basic Education Skills Test (CBEST), and submitting an application packet to the Department of Mathematics and Statistics. A completed application packet includes:

- an application form;
- an essay outlining reasons for entering a career in teaching;
- two letters of recommendation;
- two sets of transcripts from each college or university attended, other than Sacramento State; and
- one complete Sacramento State transcript.

The application packet may be submitted during the semester in which the requirements for admission are being completed, so the application may be submitted during the semester in which enrollment in MATH 108 occurs.

Prerequisite/Corequisite Requirements

There are three courses which are prerequisites or corequisites to the Blended Program and students are encouraged to take these courses prior to formal admission:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 170</td>
<td>Introduction to Bilingual Education: Policies, Principles, Programs, and Practices</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 100A</td>
<td>Educating Students with Disabilities in Inclusive Settings</td>
<td>2</td>
</tr>
</tbody>
</table>

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Division Core Courses (21 Units)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 30</td>
<td>Calculus I 1</td>
<td>4</td>
</tr>
<tr>
<td>MATH 31</td>
<td>Calculus II 1</td>
<td>4</td>
</tr>
<tr>
<td>MATH 32</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td>MATH 35</td>
<td>Introduction to Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MATH 45</td>
<td>Differential Equations for Science and Engineering</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one of the following:

- CSC 10  Introduction to Programming Logic
- CSC 15  Programming Concepts and Methodology I
- CSC 22  Visual Programming in BASIC
- CSC 25  Introduction to C Programming

| Upper Division Core Courses (15 Units)  |                                                  |       |
| MATH 108 | Introduction to Formal Mathematics                    | 3     |
| MATH 110A| Modern Algebra                                          | 3     |
| MATH 110B| Modern Algebra                                          | 3     |
| MATH 130A| Functions of a Real Variable                           | 3     |
| MATH 130B| Functions of a Real Variable                           | 3     |

| Additional Requirements for Specialized Study (12-18 Units) |       |
| Select an emphasis from the following four options:       | 12-
|                                                          | 18   |
| Emphasis in Pure Mathematics                              |     |
| Emphasis in Applied Mathematics                           |     |
| Emphasis in Statistics                                    |     |
| Teacher Preparation Program                               |     |

Total Units: 48-54

1 Course also satisfies General Education (GE)/Graduation Requirement.

Emphasis in Teacher Preparation Program

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 1</td>
<td>Introduction to Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 102</td>
<td>Number Theory</td>
<td>3</td>
</tr>
<tr>
<td>MATH 121</td>
<td>College Geometry</td>
<td>3</td>
</tr>
<tr>
<td>MATH 190</td>
<td>History Of Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>MATH 193</td>
<td>Capstone Course for the Teaching Credential Candidate</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 15

In addition, students in the Blended Program take all the courses required for the Subject Matter Program in Mathematics (see above), as well as MATH 198 and the following education classes:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDTE 372</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDTE 373</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDTE 373B</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Integrated Mathematics Major/Single Subject Credential Program

EDTE 384
EDTE 386
EDTE 470A
EDTE 470B
MATH 316    The Psychology of Mathematics Instruction 2
MATH 371A    Schools and Community A  2
MATH 371B    Schools and Community B  2

Total Units 6

General Education Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>Oral Communication</td>
<td>3</td>
</tr>
<tr>
<td>A2</td>
<td>Written Communication</td>
<td>3</td>
</tr>
<tr>
<td>A3</td>
<td>Critical Thinking</td>
<td>3</td>
</tr>
<tr>
<td>B1</td>
<td>Physical Science</td>
<td>3</td>
</tr>
<tr>
<td>B2</td>
<td>Life Forms</td>
<td>3</td>
</tr>
<tr>
<td>B3</td>
<td>Lab (Note: Lab experience to be taken with one of the following: B1, B2 or B5)</td>
<td>1</td>
</tr>
<tr>
<td>B4</td>
<td>Math Concepts 2</td>
<td>0</td>
</tr>
<tr>
<td>B5</td>
<td>Additional Course (Any B to reach 12 units) - Take upper-division course to complete Area &amp; upper division requirements.</td>
<td>3</td>
</tr>
<tr>
<td>C1</td>
<td>Arts</td>
<td>3</td>
</tr>
<tr>
<td>C2</td>
<td>Humanities</td>
<td>3</td>
</tr>
<tr>
<td>C1/C2</td>
<td>Area Course C</td>
<td>3</td>
</tr>
<tr>
<td>C1/C2</td>
<td>Area C Course - Take upper-division course to complete Area &amp; upper division requirements.</td>
<td>3</td>
</tr>
<tr>
<td>D1</td>
<td>Area D Course</td>
<td>3</td>
</tr>
<tr>
<td>D2</td>
<td>Area D Course</td>
<td>3</td>
</tr>
<tr>
<td>D3</td>
<td>Area D Course - Take upper-division course to complete Area &amp; upper division requirements.</td>
<td>3</td>
</tr>
<tr>
<td>E1</td>
<td>Understanding Personal Development</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units 46

1 To help you complete your degree in a timely manner and not take more units than absolutely necessary, there are ways to use single courses to meet more than one requirement (overlap). For further information, please visit the General Education page (http://catalog.csus.edu/colleges/academic-affairs/general-education/).

Note: There is no way to list all possible overlaps so please consult with a professional advisor. The Academic Advising Center can be visited online (http://www.csus.edu/acad/), by phone (916) 278-1000, or email (advising@csus.edu).

2 If not satisfied before entering Sacramento State, it may be satisfied in General Education Area C2 (Humanities). "C- or better required." The alternative methods for satisfying the Foreign Language Proficiency Requirement are described here: https://www.csus.edu/college/arts-letters/world-languages-literatures/foreign-language-requirement.html

Graduation Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>American Institutions: U.S. History</td>
<td>3</td>
</tr>
<tr>
<td>A2</td>
<td>Writing Intensive (WI)</td>
<td>3</td>
</tr>
<tr>
<td>D1</td>
<td>Graduation Requirements (required by Sacramento State) (12 Units)</td>
<td></td>
</tr>
<tr>
<td>D1</td>
<td>American Institutions: U.S. Constitution &amp; CA Government</td>
<td>3</td>
</tr>
<tr>
<td>D1</td>
<td>Writing Intensive (WI)</td>
<td>3</td>
</tr>
<tr>
<td>D1</td>
<td>Race and Ethnicity in American Society (RE)</td>
<td>3</td>
</tr>
<tr>
<td>D1</td>
<td>Foreign Language Proficiency Requirement 2</td>
<td>6</td>
</tr>
</tbody>
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2 Required in Major; also satisfies GE.

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<td>American Institutions: U.S. History</td>
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