THE FOLLOWING IS REQUIRED FOR ALL AA-T OR AS-T DEGREES:

1. Minimum of 60 CSU-transferable semester units.

2. Minimum grade point average (GPA) of at least 2.0 in all CSU transferable coursework. While a minimum of 2.0 is required for admission, some CSUs or majors may require a higher GPA. Please consult with a counselor for more information.

3. Completion of a minimum of 18 semester units in an “AA-T” or “AS-T” major as detailed in the transfer section of the catalog. All courses in the major must be completed with a grade of C or better or a “P” if the course is taken on a “pass-no pass” basis.

4. Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

AS-T in MATHEMATICS
Associate Degree for Transfer

CONTACT:
Counseling and Advising:
(530) 895-2378
Transfer Counseling Center:
(530) 895-2264
Transfer Information:
www.assist.org
Department Office: TE 132
(530) 895-2451
Juliet Hauser, Department Chair
(530) 879-4300

MATHEMATICS PROGRAM

Butte College Main Campus
www.butte.edu
3536 Butte Campus Drive
Oroville, CA 95965
2014-2015 Academic Year
ABOUT THE MATHEMATICS PROGRAM

The Associate in Science in Mathematics for Transfer degree (AS-T in Mathematics) is intended for students who plan to complete a bachelor’s degree in Mathematics at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major. Students transferring to a CSU campus that does accept this degree will be required to complete no more than 60 units after transfer to earn a bachelor’s degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

The associate transfer degrees (AA-T or AS-T) require completion and certification of the California State University General Education (CSU GE) or the Intersegmental General Education Transfer Curriculum (IGETC) as well as the specific AA-T or AS-T major degree requirements. Students earning either an AA-T or an AS-T will not be held to additional Butte College graduation requirements (including Physical Education and the multicultural competency). Students should work with a counselor to identify major coursework that can be used to fulfill CSU GE or IGETC categories.

STUDENT LEARNING OUTCOMES

Upon successful completion of this program, the student will be able to:

- Define, understand, and apply concepts of limits, differentiation, and integration to authentic problems
- Apply methods of matrix transformations to solve both practical and theoretical problems.
- Determine whether a theorem or definition applies in a given situation and use it appropriately.
- Demonstrate good problem-solving habits including estimating solutions and rejecting unreasonable results.
- Demonstrate the ability to use symbolic, graphical, numerical, and written representations of mathematical ideas.

<table>
<thead>
<tr>
<th>Required Courses For The Major: Required Core:</th>
<th>CSU GE</th>
<th>IGETC</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH-30 Analytic Geometry and Calculus I</td>
<td>B4</td>
<td>2A</td>
<td>5</td>
</tr>
<tr>
<td>MATH-31 Analytic Geometry and Calculus II</td>
<td>B4</td>
<td>2A</td>
<td>4</td>
</tr>
<tr>
<td>MATH-32 Analytic Geometry and Calculus III</td>
<td>B4</td>
<td>2A</td>
<td>4</td>
</tr>
</tbody>
</table>

Choose a minimum of 6 units from the LISTS below with at least 3 units from LIST A

<table>
<thead>
<tr>
<th>LIST A: Select one to two</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH-40 Differential Equations</td>
<td>B4</td>
</tr>
<tr>
<td>MATH-42 Linear Algebra</td>
<td>B4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LIST B: Select one</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS-41 Physics for Scientists and Engineers I</td>
<td>B1,B3</td>
</tr>
<tr>
<td>CSCI-20 Programming and Algorithms I</td>
<td></td>
</tr>
<tr>
<td>MATH-18 Introduction to Statistics</td>
<td>B4</td>
</tr>
</tbody>
</table>

Total units for the major: **19-21**

Total units that may be double counted: **3**

Inter-segmental General Education Transfer Curriculum (IGETC) **37**
Or CSU General Education-Breadth Requirements **39**

Transferable Electives **3-7**

Degree Total **60**

EARNING YOUR AA-T/AS-T DEGREE

To obtain an AA-T/AS-T degree, students must complete both the major requirements and the graduation requirements listed in the college catalog.

Note that some courses have a prerequisite (P), corequisite (C), or both (P/C). Prerequisites and corequisites are listed within each course description in the catalog.

Transfer majors designated as AA-T or AS-T are designed for transfer to a similar major at an unspecified CSU. Transfer majors designated as AA or AS are designed for transfer to the corresponding major at a specified CSU and are based on articulation. See a counselor for more information. Read about the difference between these types of degrees at the beginning of the Transfer section of the catalog.

Butte College does not discriminate on the basis of age, race, color, national origin, sex or disability in its programs offerings, admission criteria, accessibility, admission and employment criteria. For issues regarding Title IX and Section 504, please contact Allen Renville, Vice President of Student Services, Butte College Campus Center, Room 141, 530-895-2239.