Mathematics Programs Available at Bemidji State University:

**Major:** Mathematics (B.S.), Mathematics Teacher Licensure (B.S.)
**Fields of Emphasis:** General, Applied, Actuarial
**Minor:** Mathematics
**Specialty:** Elementary Education, (B.S.): Mathematics
**Department Website:** http://www.bemidjistate.edu/academics/departments/math_computer_science/math

**Major Highlights:**
Mathematics in its purest form is an art concerned with the exploration and expression of ideas. In its practical form, mathematics is a symbolic language and is concerned with the application of mathematical ideas and tools to the sciences and other areas of human endeavor. The study of mathematics is grounded in problem solving and includes the ability to think in a certain, organized way. It is basic to careers in the natural sciences, essential to the effective use of computer technology, and valuable in related fields such as the social sciences, business, and industrial technology. The mathematics major offered by the Department of Mathematics provides students with a core of knowledge in mathematics and allows specialization in both teaching and non-teaching programs.

**Employment Areas:**
The "Occupational Outlook Handbook" reports that Mathematicians held about 2,900 jobs in 2008. There were about 54,800 jobs for postsecondary mathematical science teachers in 2008. Many mathematicians work for the Federal Government, primarily in the U.S. Department of Defense which accounts for about 81 percent of the mathematicians employed by the Federal Government. In the private sector, major employers include scientific research and development services and management, scientific, and technical consulting services. Some mathematicians also work for insurance carriers as actuaries.

**Projected Demand for Mathematics Majors in Minnesota:**
The American Association for Employment in Education reports that there is considerable shortage in the Midwest for mathematics teachers, which includes the state of Minnesota. More openings occur in rural or suburban areas and as teachers retire. The DISCOVER guidance system reports that in Minnesota, the field of Actuary Science is expected to grow rapidly with the most opportunities in the insurance and financial services. The average starting salary with a four year degree for an Actuary is $58,000 per year in 2009.

**Projected Demand for Mathematicians Nationwide:**
The DISCOVER guidance system reports that the nationwide outlook for mathematicians is growing moderately with a 1% expected growth rate. The average starting salary for mathematicians with a four year degree was $51,000 in 2009. The outlook for statisticians is expected to grow slowly with an average starting salary of $49,500 in 2009. The American Association for Employment in Education reports that there is a considerable shortage of mathematics educators nationwide. The "Occupational Outlook Handbook" reports the median annual wages for secondary school teachers ranged from $47,100 to $51,180 in May 2008. The "Occupational Outlook Handbook" also reports that the median annual wages of mathematicians was $95,150 in May 2008 and that a Ph.D. in Mathematics is usually the minimum education required for these positions.

**Placement Information for Mathematics Graduates:**
There are many career opportunities for Bemidji State University mathematics graduates. Of the Bemidji State University 2008-2009 mathematics graduates with a B.S., 75% reported obtaining related employment within one year of graduation. Of the Bemidji State University 2008-2009 mathematic graduates with an education B.S. 80% reported obtaining related employment within one year of graduation. This does not include students who were not seeking employment, furthering their education, unavailable, or had unknown status.
A Partial List of Employers Who Have Hired BSU Mathematics Graduates:

- ADC Telecommunications
  - Computer Technician
  - Shakopee, MN
- American Hardware Mutual Insurance Co.
  - Underwriting Technician
  - Minnetonka, MN
- Annandale High School
  - Math/Phy Ed Teacher
  - Annandale, MN
- Bagley High School
  - Math Teacher
  - Bagley, MN
- Bagley School District
  - Mathematics Teacher
  - Bagley, MN
- Bemidji High School
  - Secondary Math Teacher
  - Bemidji, MN
- Bemidji State University
  - Mathematics Instructor
  - Bemidji, MN
- Benfield, Inc.
  - Contract Writing Analyst
  - Bloomington, MN
- Blaine School District
  - Mathematics Teacher
  - Blaine, MN
- Braham Area High School
  - Math Teacher
  - Braham, MN
- Brooklyn Center School District
  - Math Teacher
  - Brooklyn Center, MN
- Browerville Public Schools
  - Junior High Mathematics Teacher
  - Browerville, MN
- Bug-O-Nay-Ge-Shig School
  - Math/Computer Teacher
  - Bena, MN
- Cathedral High School
  - Math Teacher
  - St Cloud, MN
- Central Lakes College
  - Instructor
  - Staples, MN
- Clearbrook-Gonvick High School
  - High School Math Teacher
  - Clearbrook, MN
- Cook County Schools
  - High School Math Teacher
  - Grand Marais, MN
- Digi-Key, Inc.
  - Software Engineer
  - Thief River Falls, MN
- Duluth Public Schools
  - Math Teacher
  - Duluth, MN
- Federated Insurance
  - Actuary
  - Owatonna, MN
- Federated Insurance
  - Associate Programmer
  - Owatonna, MN
- Floodwood School District
  - Mathematics Teacher
  - Owatonna, MN
- Frazee-Vergas School District
  - Teacher
  - Floodwood, MN
- Fredericks Elec. Security Systems
  - Programming Technician
  - Frazee, MN
- Grafton High School
  - Math Teacher
  - Hibbing, MN
- Henry Sibley High School
  - Mathematics Teacher
  - Grafton, ND
- Hibbing Community College
  - Math/English Teacher
  - West St Paul, MN
- Hutchinson High School
  - Math Instructor
  - Hibbing, MN
- ISD #200
  - Mathematics Teacher
  - Hutchinson, MN
- ISD #2170
  - High School Mathematics Teacher
  - Hastings, MN
- ISD 194
  - Math Teacher
  - Staples, MN
- ISD 206
  - High School Mathematics Teacher
  - Lakeville, MN
- ISD 2142
  - Math Teacher/Coach
  - Alexandria, MN
- ISD 308
  - Mathematics Teacher
  - Virginia, MN
- ISD 31
  - Instructor
  - Nevis, MN
- ISD 742
  - Math Teacher
  - Bemidji, MN
- Itasca Community College
  - High School Mathematics Teacher
  - St. Cloud, MN
- Kittson Central High School
  - Math Teacher
  - Grand Rapids, MN
- LSS Data Systems
  - Computer Programmer
  - Hallock, MN
- McGregor High School
  - Mathematics Teacher
  - Eden Prairie, MN
- Menahga High School
  - High School Math Teacher
  - McGregor, MN
- Minnesota State Colleges & Universities
  - Math / Computer Science Teacher
  - Menahga, MN
- Minnewaska Schools
  - Mathematics Teacher
  - Fergus Falls, MN
- Montevideo High School
  - High School Mathematics Teacher
  - Glenwood, MN
- Moose Lake High School
  - High School Math Teacher
  - Montevideo, MN
- Northland Community College
  - Instructor
  - Moose Lake, MN
- Oak Hill Academy
  - Math Teacher
  - Thief River Falls, MN
- Ogilvie School District
  - Mathematics Teacher
  - West Point, MS
- Pequot Lakes School District
  - Math/Physics Teacher
  - Ogilvie, MN
- Pine River/Backus School District
  - Mathematics Teachers
  - Pequot Lakes, MN
- Primerica Financial Services
  - High School Math Teacher
  - Pine River, MN
- Princeton School District
  - Financial Representative
  - Maplewood, MN
- Rainy River Community College
  - Mathematics Teacher
  - Princeton, MN
- Redwood Area School District
  - Math Instructor
  - International Falls, MN
- Robbinsdale High School
  - Mathematics Teacher
  - Redwood Falls, MN
- Robinsdale High School
  - Mathematics Teacher
  - New Hope, MN
A Partial List of Employers Who Have Hired BSU Mathematics Graduates (Continued):

<table>
<thead>
<tr>
<th>Employer</th>
<th>Position</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roseau High School</td>
<td>Math Teacher</td>
<td>Roseau, MN</td>
</tr>
<tr>
<td>Roseville Public Schools</td>
<td>Secondary Mathematics Teacher</td>
<td>Roseville, MN</td>
</tr>
<tr>
<td>St. Clair Public School</td>
<td>Mathematics Teacher</td>
<td>St. Clair, MN</td>
</tr>
<tr>
<td>Walker-Hackensack-Akeley High School</td>
<td>Mathematics Teacher</td>
<td>Walker, MN</td>
</tr>
<tr>
<td>Warroad School District</td>
<td>Math Teacher</td>
<td>Warroad, MN</td>
</tr>
<tr>
<td>Wilbert, Inc.</td>
<td>Cost Analyst</td>
<td>White Bear Lake, MN</td>
</tr>
<tr>
<td>Rocori School District</td>
<td>Mathematics Teacher</td>
<td>Cold Spring, MN</td>
</tr>
<tr>
<td>Sartell-St. Stephen School District</td>
<td>Mathematics Teacher</td>
<td>Sartell, MN</td>
</tr>
<tr>
<td>Trek North High School</td>
<td>Mathematics Teacher</td>
<td>Bemidji, MN</td>
</tr>
<tr>
<td>Tri-County School District</td>
<td>Mathematics Teacher</td>
<td>Karlstad, MN</td>
</tr>
<tr>
<td>Virginia School District</td>
<td>Mathematics Teacher</td>
<td>Virginia, MN</td>
</tr>
<tr>
<td>Voyageurs Expeditionary High School</td>
<td>Mathematics Teacher</td>
<td>Bemidji, MN</td>
</tr>
</tbody>
</table>

Colleges and Universities Where BSU Mathematics Graduates Have Gone to Continue Their Education:

<table>
<thead>
<tr>
<th>College</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bemidji State University</td>
<td>Bemidji, MN</td>
</tr>
<tr>
<td>Miami University</td>
<td>Oxford, OH</td>
</tr>
<tr>
<td>South Dakota State University</td>
<td>Brookings, SD</td>
</tr>
<tr>
<td>University of Minnesota Duluth</td>
<td>Duluth, MN</td>
</tr>
<tr>
<td>University of Minnesota</td>
<td>Minneapolis, MN</td>
</tr>
<tr>
<td>University of Minnesota Twin</td>
<td>Cities, Minneapolis, MN</td>
</tr>
</tbody>
</table>

Note 1: Some of the above job/career titles require advanced degrees or specialized training.

Note 2: Degrees alone do not get students jobs. Internships, summer jobs, volunteer work, part-time jobs, work-study positions, and active participation in student organizations on campus are all ways to become more competitive in a tight job market.

Note 3: Personal Competencies: it is also recommended that individuals be competent in a variety of communication methods, and computer skills are a must.

Bibliography:

- Bemidji State University Undergraduate Catalog 2006-2008. Bemidji State University, Bemidji, MN (2009)
- DISCOVER. The American Testing Program, Educational Technology Center, Hunt Valley, MD (2009)

For more information, please contact the Career Services Office in 102 Sanford Hall or call us at 218-755-2038 or toll free at 800-657-3726.