Mathematics Career Outlook 2014–2015

Mathematics Programs Available At Bemidji State University:
Major: Mathematics (B.S.), Mathematics Teacher Licensure (B.S.)
Fields of Emphasis: General, Applied, Actuarial
Minor: Mathematics
Endorsement: Elementary Education (B.S.): Math
Department Website: http://www.bemidjistate.edu/academics/departments/math_computer_science/mathematics/

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 majors offered by the Department of Mathematics provide students with a core of knowledge in mathematics and allow specialization in both teaching and non-teaching programs.

EMPLOYMENT AREAS:
The "Occupational Outlook Handbook" reports that Mathematicians held about 3,500 jobs in 2012. 30 percent worked in federal government; 20 percent worked in scientific research and development services; 18 percent worked in education services; and 10 percent worked in management of companies and enterprises, and manufacturing.

PROJECTED DEMAND FOR MATHEMATICS MAJORS IN MINNESOTA:
The American Association for Employment in Education reports that there is some 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. According to the iseek.org website, actuarial careers are seeing very high growth compared to other careers and experienced actuaries can expect to make $44.83 per hour.

PROJECTED DEMAND FOR MATHEMATICS MAJORS NATIONWIDE:
Focus™ reports that the nationwide demand for mathematicians is expected to grow much faster than average through 2022, with people established in their career generally earning between $66,870 and $115,670 per year. Focus™ reports that the nationwide demand for statisticians is expected to grow much faster than average through 2022, with people established in their career generally earning between $50,590 and $95,740 per year. The "Occupational Outlook Handbook" reports the median annual wages for high school teachers was $55,050 in 2012. The "Occupational Outlook Handbook" also reports that the median annual wages of mathematicians was $101,360 in 2012 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 2012-2013 Mathematics graduates with a B.S., 91.7% reported obtaining employment within one year of graduation. Of the Bemidji State University 2012-2013 Mathematics graduates with an Education B.S. 85.7% reported obtaining related employment within one year of graduation. This does not include students who were not seeking employment, continuing education, unavailable, or had unknown status.

A PARTIAL LIST OF EMPLOYERS WHO HAVE REPORTED HIRING BSU MATHEMATICS GRADUATES: (This list only includes employment within one year of graduation.)

<table>
<thead>
<tr>
<th>Employer</th>
<th>Job Title</th>
<th>City</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Hardware Mutual Insurance Co.</td>
<td>Underwriting Technician</td>
<td>Minnetonka, MN</td>
</tr>
<tr>
<td>Adventurous Christians</td>
<td>Business Manager/Owner</td>
<td>Grand Marais, MN</td>
</tr>
<tr>
<td>Alerus Financial</td>
<td>Credit Analyst</td>
<td>Fargo, ND</td>
</tr>
<tr>
<td>Ascensus</td>
<td>Account Executive</td>
<td>Brainerd, MN</td>
</tr>
</tbody>
</table>
Benfield, Inc.
Blaine School District
Blackduck School District
Braham Area High School
Brooklyn Center School District
Browerville Public Schools
Bug-O-Nay-Ge-Shig School
Cass Lake School District
Cathedral High School
Central Lakes College
Cook County Schools
Delano Public Schools
Digi-Key Corporation
Duluth Public Schools
Epic Systems
Federated Insurance
Federated Insurance
Floodwood School District
Frazee-Vergas School District
Fredericks Elec. Security Systems
Hibbing Public School
Hill City Public Schools
Hutchinson High School
ISD #200
ISD #2170
ISD 194
ISD 206
ISD 308
ISD 31
Itasca Community College
Kittson Central High School
Alerus Financial
Menards
Minnewaska Schools
Montevideo High School
Moorehead School District
Moose Lake High School
Naskwauk-Keewatin School District
Northwest Minnesota Juvenile Center
Oak Hill Academy
Ogilvie School District
Pequot Lakes School District
Pine River/Backus School District
Primenerca Financial Services
Princeton School District
ProtoLabs, Inc.
Redwood Area School District
Robbinsdale High School
Rocori School District
Roseau High School
Roseville Public Schools
Sanford Health
Sartell-St. Stephen School District
Saturn Systems
St. Clair Public School
Trek North High School
Tri-County School District
U.S. Bank
Virginia School District
Voyageurs Expeditionary High School
Walker High School
Warroad School District
West Fargo School District

Contract Writing Analyst
Mathematics Teacher
High School Math Teacher
Math Teacher
Math Teacher
Math Teacher
Math/Computer Teacher
High School Mathematics Teacher
Math Teacher
Math Teacher
Business Intelligence Developer
Actuary
Associate Programmer
Teacher
Mathematics Teacher
Programming Technician
Math Teacher
Math Teacher
Math Teacher
High School Mathematics Teacher
High School Mathematics Teacher
Secondary Mathematics Teacher
Math Teacher
High School Mathematics Teacher
Math Teacher/Coach
Teacher
Math Teacher
Credit Analyst
High School Mathematics Teacher
Software Developer
Mathematics Teacher
Mathematics Teacher
High School Mathematics Teacher
Secondary Math Teacher
Corrections Counselor
Math Teacher
Math/Physics Teacher
Mathematics Teachers
High School Mathematics Teacher
Financial Representative
Mathematics Teacher
Associate Software Engineer
Mathematics Teacher
Mathematics Teacher
Mathematics Teacher
Math Teacher
Secondary Mathematics Teacher
IT Application Specialist
Mathematics Teacher
Software Engineer
Mathematics Teacher
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Bloomington, MN
Blaine, MN
Blackduck, MN
Braham, MN
Brooklyn Center, MN
Browerville, MN
Bena, MN
Cass Lake, MN
St. Cloud, MN
Brainerd, MN
Grand Marais, MN
Delano, MN
Thief River Falls, MN
Duluth, MN
Verona, WI
Owatonna, MN
Owatonna, MN
Floodwood, MN
Frazee, MN
Hibbing, MN
Hibbing, MN
Hill City, MN
Hutchinson, MN
Hastings, MN
Staples, MN
Lakeville, MN
Alexandria, MN
Nevis, MN
Bemidji, MN
Grand Rapids, MN
Hallock, MN
Fargo, ND
Menahga, MN
Eau Claire, WI
Glenwood, MN
Montevideo, MN
Moorehead, MN
Moose Lake, MN
Naskwauk, MN
Bemidji, MN
West Point, MS
Ogilvie, MN
Pequot Lakes, MN
Pine River, MN
Maplewood, MN
Princeton, MN
Maple Plain, MN
Redwood Falls, MN
New Hope, MN
Cold Spring, MN
Roseau, MN
Roseville, MN
Bemidji, MN
Sartell, MN
Duluth, MN
St. Clair, MN
Bemidji, MN
Karlstad, MN
Minneapolis, MN
Virginia, MN
Bemidji, MN
Walker, MN
Warroad, MN
West Fargo, ND
COLLEGES AND UNIVERSITIES WHERE BSU MATHEMATICS GRADUATES HAVE GONE TO CONTINUE THEIR EDUCATION

Bemidji State University, Bemidji, MN
California State University, San Marcos, CA
Miami University, Oxford, OH
Minnesota State University, Mankato, MN
South Dakota State University, Brookings, SD
University of Minnesota, Duluth, MN
University of Minnesota, Minneapolis, MN
University of Minnesota Twin Cities, Minneapolis, MN
University of North Dakota, Grand Forks, ND

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:
FOCUS II. Career Dimensions Incorporated, Manchester, NH (2015)

For more information, please contact the Career Services Office in Sattgast 207 or call us at 218-755-2038 or toll free at 800-657-3726.

For more job listings please visit:

http://www.bemidjistate.edu/students/services/career/job_search/jobs/