



**2010-2011**

**Mesabi Range Community & Technical College  
Program/Discipline Review**

**Economics and Geography Department**

**Instructor: Aaron R. Kelson, Ph.D.**



# Mesabi Range Community & Technical College Mission and Values Statement

## Mission and Values

The MNSCU Board of Trustees adopted the Vision and Mission for Mesabi Range Community & Technical College in May 2000.

## Mission

Mesabi Range Community & Technical College provides high quality education resulting in rewarding employment, lifelong learning, and the enriched lives of our students and community.

## Values

Mesabi Range Community & Technical College values leadership in learning through innovation, excellence, integrity, and accountability.

# Mesabi Range Community & Technical College Strategic Foundation

## We are

- Learner Focused and Customer Service Oriented
- Leaders and Innovators in Technology and Learning Tools
- Focused on Integrity through Community and Environmental Stewardship

# Program Review

## Instructional Guidelines

### Chapter 1 Overview of the Program: Economics and Geography

Description of the program (philosophy, purpose, mission of program, etc.)  
How are the Mesabi Range Community & Technical College Mission, Goals, and Guiding Principles reflected in your program?

#### The Economics and Geography Department's Mission:

The **mission** of the department of economics and geography is to actively promote the mission of Mesabi Range College (MRCTC) by providing students with high quality education, preparation for rewarding employment, encouragement to pursue lifelong learning, and enriched lives.

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The Economics and Geography Department's Purpose:

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The department seeks to prepare students to participate meaningfully in the societies of which they are part. Important specific skills and material are learned. And, the department's broader purpose of assisting students to learn how to think critically and to analyze complex issues in a logically cohesive manner is aggressively pursued.

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The Economics and Geography Department's Philosophy:

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The department believes that all students, regardless of their intended major or area of expertise, can benefit greatly by learning about economics and geography. Applications of these two disciplines are almost limitless and are part of everyone's daily life. Both of these disciplines have been, without question, essential building blocks for every advanced civilization. Therefore, the material studied can empower students to participate meaningfully in bettering the communities and the greater society in which they live. And, in doing so, students are also empowered to better meet their own needs. The department believes that economic and geographic principles are best taught using both broad and local contexts. Doing so requires the involvement of instructors who are both subject matter experts and who are intimately familiar with our service region.

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The Economics and Geography Department's Program Description:

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Currently, the economics and geography department regularly offers seven courses with one other course (world regional geography) listed in the MRCTC catalog. The foundational courses we teach in economics and geography are almost universally transferable. While the department emphasizes the transferability of its courses other goals are also important to the department's mission. The department strives to make our courses as accessible as possible and to teach these foundational courses in such a way that students will 1) learn principles and skills that they can immediately apply and 2) be encouraged to pursue further related education.

<u>Term</u>	<u>Economics Classes</u>
Fall	Survey of Economics (ECON 1555)
Fall	Microeconomics (ECON 1556)
Fall	Introduction to the World Economy (ECON 1565) <i>Online</i>
Spring	Macroeconomics (ECON 1557)
Spring	Microeconomics (ECON 1556) <i>Online</i>

<u>Term</u>	<u>Geography Classes</u>
Fall	Physical Geography (GEOG 1555)
Fall	Physical Geography (GEOG 1555) <i>Online</i>
Spring	Physical Geography (GEOG 1555)
Spring	Human Geography (GEOG 1556) <i>Online</i>
Spring	Conservation of Natural Resources (GEOG 1557) <i>Online</i>

- Currently, all courses in the department are taught by Dr. Aaron R. Kelson (Ph.D., Utah State University, 1997.)
- The department mission and philosophy are harmonious with the mission, goals, and principles of MRCTC. The college mission statement emphasizes the importance of high quality education, rewarding employment, lifelong learning, and enriched lives of both students and communities.

Each component of the *MISSION* is addressed below:

**High Quality Education:** Ensuring high quality education in the economics and geography department begins with well-qualified instructors. Instructors need to be subject matter experts, be familiar with the service region, and have a genuine commitment to helping students develop. Currently, Dr. Kelson fills this role, drawing upon doctoral training in forestry economics, which allows him to teach both disciplines of economics and geography successfully. Having lived in our service region for a total of almost twenty years and having studied the region for many additional years, he can ground the principles and concepts taught in circumstances familiar to the students. He is genuinely committed to student development.

High quality education is further enhanced through the use of exceptional curriculum materials and online resources. Each textbook selected is carefully reviewed both for accuracy and for clarity. Since his tenure as a full-time instructor began in fall 2002, Dr. Kelson has changed five of the six textbooks used in the department when he began teaching, and he has added a seventh textbook for the new world economy class. Each change is a monumental undertaking as course notes and assignment have to be revised. The motivations for the changes have always been to improve student learning and to make the material more accessible. Online resources continue to be added to traditional textbook materials. This topic will be discussed more fully in the MRCTC goal section below.

Dr. Kelson is also committed to a teaching format that is guided by Gardner's multiple intelligences model. For the past three years, Dr. Kelson has incorporated video production and other creative methods of learning the material in his classes. This emphasis also provides a lab-like experience in the physical geography class, as required for transfer.

**Rewarding Employment:** Economics and geography training help prepare students to participate in a number of rewarding career fields. This fact is often emphasized in class. The list of careers that require economic and geographic training is large. A few of the more popular fields include economist, geographer, business owner, statistician, urban planner, transportation planner, civil engineer, real estate appraiser, environmental analyst, marketing

analyst, community development specialist, librarian, demographer, economic development specialist, soil scientist, ecologist, politician, geographic information technician, and many more.

**Lifelong Learning:** Teaching economics and geography successfully requires that students be encouraged to continue learning about the disciplines long after their formal education is completed. Lectures often emphasize the need to apply the material learned as broadly as possible. Learning geography is similar to learning how to read. When the patterns and symbols in both the human and natural worlds begin to coalesce into meaningful ideas life is greatly enriched. Knowledge of economics allows people to help guide rather than simply be controlled by demographic and social pressures and changes. One of Dr. Kelson's favorite letters from a former student is one that describes how much more enjoyable family vacations have become as she now spends the hours in the car "reading the landscape." She added that she has purchased many books, sometimes to her husband's dismay, to add to her knowledge of the world. Similarly, it is greatly rewarding to see students begin to comprehend the magnitude and causes of economic issues such as the national debt and sustained unemployment. Problem solving is always emphasized in class.

**Enriched Lives:** Promoting lifelong learning and enriched lives are overlapping goals. Life enrichment can begin immediately, however. To summarize, enrichment seems to come when students begin to understand that knowledge is power. Knowledge is power to guide (even to control) events that happen in their lives. Knowledge is also power to predict. Not all events can be controlled, but if they can be predicted preparations can be made. Economics and geography give students especially powerful knowledge. As this is gained, students begin to lose whatever attachment they may have to the "victim mentality." They begin to take control of their lives. Of course, this process cannot be completed through the disciplines of economics and geography alone.

To the mission statement, MRCTC adds vital *GOAL STATEMENTS*. The department's contribution to the accomplishment of these goals is described here.

**Focus on Learning and Learners:** The study of economic and geography can be challenging. It is no secret that courses in economics, in particular, are often dreaded by college students. The department wholeheartedly endorses the MRCTC goal of providing a nurturing environment for learners. Not all of the difficulty of the subject matter can be removed, nor should it be, but the material can be taught in such a way that traditional and non-traditional students come to believe that they are capable of excelling if that is their desire. Geography is not as abstract as is economics, but the sheer volume of material that must be learned can be intimidating. To reduce discouragement, the grading scheme for all courses includes a significant assignment component. Relying on test scores alone would quickly discourage approximately 50% of students taking department courses. Adding numerous assignments is extremely challenging given the number of students who enroll, but it is an important way to ensure that the learning process is nurturing rather than destructive.

**Curriculum and Program Innovation:** A major initiative of the department has been to make courses available online to increase flexibility for students and to broaden the enrollment base. Currently, five of the seven core courses are offered online at some time during the academic year. The department has been an active participant in online instruction since its introduction at MRCTC. Enrollment in the department's online courses is strong and includes an increasing number of students from outside our immediate service area. And, as mentioned above, multi-media is increasingly used in these courses to enhance the learning experience.

**Partnerships at Work:** The department actively seeks to develop educational, industry, service, and governmental partners. A current, and likely ongoing, effort that depends on

partnerships is the establishment of the first student-run business at MRCTC, the Norsemen Café. This project required more than a year of planning, and it involves numerous local partners, including vendors, other departments, and the Small Business Development Center.

**Growing Our Resources:** The department recognizes the need to maximize the benefits that can be achieved through the use of state funds. Five of the seven core courses taught in the department have higher than average enrollment for courses taught in the college as a whole. Dr. Kelson teaches between 130 and 170 students each semester, a number matched by only two or three other instructors at MRCTC. He recognizes as well that enrollment numbers are largely an artifact of the courses taught. In order for MRCTC to offer higher level math, some science courses, and perhaps other courses where enrollment is typically quite low it is necessary that larger enrollments be accepted in courses such as economics and geography. Dr. Kelson welcomes this assignment. This is one of the best ways to leverage resources received by the college so that the quality educational environment we all desire can be achieved. Maintaining instructional quality is always a concern with high enrollments, however. Communication about this issue is ongoing with the dean of academic affairs and with the provost. The department is also committed to securing grant funding for projects that will enhance the department and MRCTC mission. For example, in 2004 a CTL grant for \$4,400 was awarded for use in geography department instruction, in 2008 a total of \$12,000 in grant support was received that allowed the department to interact with multiple community partners, and in 2011 a \$510 Mesabi Foundation innovative grant was received.

The *GUIDING PRINCIPLES* used by MRCTC apply strongly to the department. It is hoped that the principles of access, excellence, opportunity, responsiveness, community, and innovation have been adequately addressed in the mission and goals discussion above.

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## **Chapter 2 Program Goals, Course Assessment, and Delivery**

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**Integration of Mesabi Range Community & Technical College's Learning Outcomes into program and/or discipline. Mesabi Range Community and Technical College works toward the creation of an informed citizenry with the ability to communicate effectively, think critically, develop mathematical skills, and use information technology.**

- **How does the program's curriculum holistically incorporate the general college learning outcome core abilities and program level assessment?**
- **How does the department assess Mesabi Range's learning outcomes listed below?**
- **If a goal area is not met, please indicate by Not Applicable**

### **Communicate Effectively**

The Economics and Geography Department's curriculum develops the student's ability to Communicate Effectively in the following ways:

Every course taught in the department requires that students submit one or more written assignments, almost every course requires student to participate in one or more group presentations, and in-class discussions are extensively used. Online courses include numerous discussion assignments. Some examples of innovative assignments used to improve communication skills are described here.

Physical geography requires students to produce a video or another “creative connections” project that is then presented to the rest of the class. Group work is encouraged. In some cases, a “geographic highlights” report can be completed as a substitute for the video project.

In macroeconomics students work in groups of up to four students to complete a “Minnesota Economic Review” assignment. This assignment introduces students to the wealth of economic information on the Internet. Students produce detailed tables and summaries covering the topics of business patterns and sizes, income levels, banking deposits, income taxes, assistance to needy families, unemployment, wages by occupation, and poverty measures. Students then participate in panel discussions about one or more of the topics in the assignment. A similar assignment is used in survey of economics.

Students in microeconomics participate in several in-class economic simulations or games, such as a spending multiplier exercise, that require active participation and commentary. In-class readings are sometimes distributed for additional discussion.

Students in human geography complete a Minnesota map portfolio that includes maps of several variables measured at the county-level. The variables currently include population density, percent population change, per capita income, employment in manufacturing, employment in professional services, percent with a bachelor’s degree or higher, percent that claims German ancestry, percent that claims Italian ancestry, percent with a disability, and percent living in the same house for the past five years. Students can work together on the project. Summaries of each map are required, and in-class discussion occurs as the projects develop.

Students in conservation of natural resources develop communication skills by participating in ten online discussion assignments as well as submitting ten one- to two-page “reaction papers.” A term paper is sometimes required in this course as well. Online discussions are designed to require students to submit well-considered ideas and not just “off-the-cuff” comments. Students are often required to read certain material prior to the discussion and base their comments on the ideas presented. Original replies and replies to postings made by other students are required.

## **Think Critically**

The Economics and Geography Department’s curriculum develops the student’s ability to Think Critically in the following ways:

Both economics and geography require critical thinking skills. The difference between rote memorization and critical thinking is frequently stressed. For example, in physical geography students learn about global wind and pressure belts. Students are required to replicate these on a test. It is always stressed that one could memorize the 13 wind and pressure belts in order or one could consider the principles that create the pattern; thus making replication an easy matter. Students are always taught that it is better to know the general rules than to simply rely on rote memorization. Students are constantly reminded that “this is not high-school geography.” Knowing where the Mississippi River is located is important, but we want to know why it is located there. We want to be able to answer “why” questions about patterns found in ecosystems, soils, weather, landforms of all kinds, river systems, arid systems, oceans, and more. Why is always stressed more than where in geography at this level, and answering the why questions requires much critical thinking.

In economics a challenge some students have is learning that it is a social science and not “a version of accounting.” Every graph, every equation, and every model tells a story. Students who excel in mathematics can often solve elasticity, demand, or multiplier problems, but it is always stressed that getting the right numerical answer is only the beginning. There is a vast difference between a

mathematician and an economist. A good economist has to be able to fully interpret the answer, drawing upon economic theory to do so. The ability interpret models is stressed in lectures, assignments, and tests. Students are also given assignments like the Minnesota Economic Review to develop critical thinking skills. Students are told that completing the tables by pulling data from the Internet is only the beginning. Interpreting the trends is the critical work. Again, much critical thinking is required.

### **Demonstrate Mathematical Skills**

The Economics and Geography Department's curriculum develops the student's ability to Demonstrate Mathematical Skills in the following ways:

Every course taught in the department requires at least some mathematical proficiency. Economics requires significantly more mathematics than does geography at this level. Students completing micro and macroeconomics are required to use basic algebraic skills to solve for unknown variables. Virtually all equations used in economics at this level are linear, but microeconomics may include non-linear equations used to compute present and future values. Physical geography uses simple algebraic equations to compute relative humidity. Human geography uses simple algebraic equations in models used to predict retail activity, birth and death rates, population density, map scale, and other variables. Conservation of natural resources uses mathematics to solve for demand and supply relationships (borrowing from economics).

### **Use Information Technology**

The Economics and Geography Department's curriculum develops the student's ability to Use Information Technology in the following ways:

Online courses rely heavily on information technology for delivery and interaction. Every course taught also relies increasingly on Internet resources. Students are directed to Internet readings that add to course content and are also directed to online aids that are associated with textbooks used. These aids include tutorials and sample tests. Lecture notes and handouts are sometimes made available on the MRCTC server, a feature relied upon by many students taking classes from the department.

Almost all on-campus courses are taught with the aid of PowerPoint presentations, projected with equipment located in assigned classrooms. Because of the visual nature of geography and economics it is essential that this equipment be well maintained. IT equipment functionality has become a constant concern as the department no longer has a dedicated classroom where more traditional visual aids such as maps and globes can be organized and made readily available for instruction and student use. Prior to 2003 all economics and geography courses were taught in a dedicated classroom.

As mentioned above, students are increasingly expected to produce multi-media presentations which can be shared with the rest of the class. Over the past three years, students in the department have produced more than 100 videos.

**What are the primary outcomes of your program/discipline?**

- **List five to seven outcomes**
- **How is each outcome assessed?**

The Economics and Geography Department's primary program/discipline outcomes and assessment methods are drawn from the Minnesota Transfer Curriculum (MnTC). Seven outcomes that are most stressed in the department are listed here:

**Outcome One: Demonstrate understanding of scientific theories.**

Through numerous assignments and tests, students are required to demonstrate their understanding of the applicable scientific theories used in economics and geography.

**Outcome Two: Communicate their experimental findings, analyses, and interpretations both orally and in writing.**

Every course includes at least written assignments that must be communicated to the instructor and, in many cases, to fellow classmates. Some courses also include an oral assignment as well.

**Outcome Three: Examine social institutions and processes across a range of historical periods and cultures.**

This outcome is stressed most in the economics courses and the human geography course. Economic theory is highlighted in its social context from classical theory to modern theories like monetarism and neo-Keynesian models. Numerous applications are found in human geography, such as the diffusion of cultural traits from hearths to present locations.

**Outcome Four: Develop and communicate alternative explanations or solutions for contemporary social issues.**

Students are introduced to competing theories of economics, such as the Austrian school, the models promoted by Dr. E.F. Schumacher, and small-scale models, such as those developed by Dr. Muhammed Yunus, versus large-scale economic models such as supply side theory.

**Outcome Five: Discern patterns and interrelationships of bio-physical and socio-cultural systems.**

The geography classes in particular focus on complex relationship patterns in both the bio-physical and socio-cultural realms. Students' understanding of these relationships is assessed through numerous tests and assignments, including reports or multi-media presentations.

**Outcome Six: Propose and assess alternative solutions to environmental problems.**

This outcome is stressed most in conservation of natural resources; although it is not omitted in the study of macroeconomics. Students are required to write "reaction papers" or participate in discussions that require them to propose and assess alternative solutions.

Outcome Seven: Understand the role of a world citizen and the responsibility world citizens share for their common global future.

The concept of interrelationships is constantly stressed in all courses taught; with the least emphasis being applied in microeconomics, but even in that course the global community is discussed. Numerous tests and assignments are designed to emphasize this outcome.

### **Delivery of department program and courses**

- **How are the courses delivered to students?**
- **How is information technology incorporated into the program?**

The Economics and Geography Department delivers courses and programs in the following ways:

As explained above, five of the seven courses are now offered at least once a year through an online platform. Other courses, or offerings, are taught using a traditional lecture/activity format on campus.

The Economics and Geography Department incorporates information technology in the following ways:

1. Online platform (currently D2L)
2. PowerPoint presentations
3. Full-length and condensed video presentations (through YouTube)
4. Internet resources, particularly data sets made available through the U.S. federal government
5. Automated response systems (clickers)

## **Chapter 3 General Program Assessment and Goals**

**Specific *external* program assessment measures, assessment timeline, and assessment findings (if applicable). The following external measures should be considered along with other information that the department deems relevant.**

- **Advisory Boards**
- **External Accrediting Agencies**
- **Transfer Institutions**
- **Employer surveys**
- **Other MNSCU/NHED/MRCTC surveys**

The Economics and Geography Department measures program level outcomes externally through acceptance of offered courses at transfer institutions. Because of its liberal arts focus, the department does not work with an advisory board or an external accrediting agency. Few, if any, students would begin employment in an economics or geographic field immediately after completing the introductory courses offered at MRCTC. The timeline for program assessment is, therefore, ongoing. External assessment indicates that the course outlines and textbooks used are satisfactory for transfer purposes.

### **Assessment: Professional Development Plans**

- **Discuss the types of professional development that the department's faculty and staff have participated in during the past three years and how it has impacted student learning, course improvement, and program success.**

The Economics and Department's faculty and/or staff have participated in the following professional development and its impact is as follows:

1. Statewide economics discipline meeting held at Normandale Community College.
  - a. Learned about additional free, web-based material that can be used in the classroom.
  - b. Learned more about structuring online tests appropriately.

2. Entrepreneurship seminar held at MRCTC.
  - a. Received advice and encouragement for introducing more entrepreneurship in the college curriculum. This has taken place, including initiating a student-run business.
3. Campus CTL events.
  - a. Discipline and civility in the classroom.
  - b. Incorporating diversity.
  - c. Helping students teach other students.
4. Numerous faculty duty-days.
  - a. Improving course outlines, particularly goals and assessment.
  - b. Understanding connections between all courses and departments on campus.
  - c. Bringing innovation into the classroom.

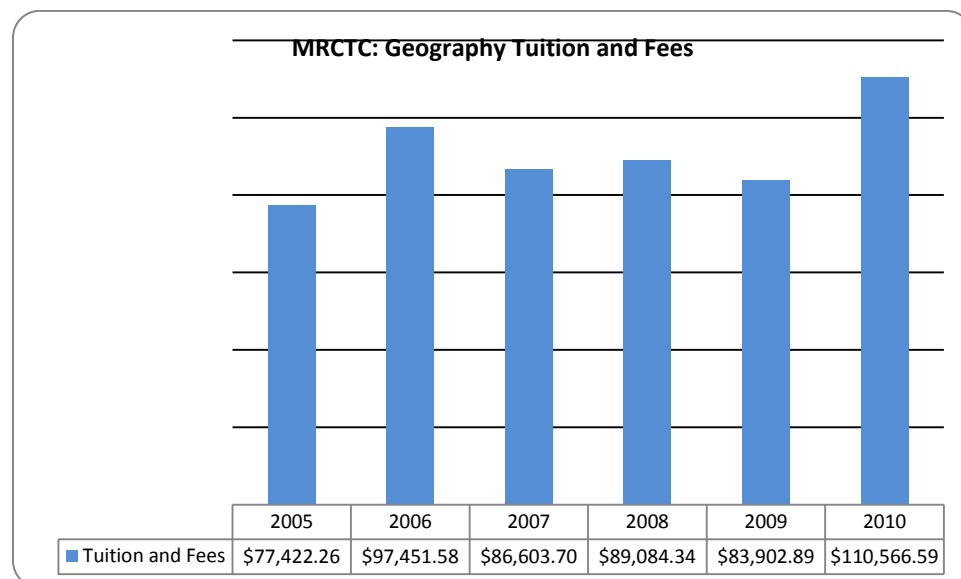
## Chapter 4 Program Efficiency Assessment and Goals

**Review and assessment of program efficiencies in regards to instructional costs. The following should be considered:**

- **MNSCU Instructional Cost Study**
- **NHED Cost Study**
- **Mesabi Range Cost Study**
- **Mesabi Range Fact Book**
- **Cost per FYE**
- **Cost per FYE compared to other NHED colleges and MNSCU institutions**
- **Indirect costs compared to other NHED colleges MNSCU institutions**
- **Three year trends for student credit hours generated in fall, spring, and summer semesters**

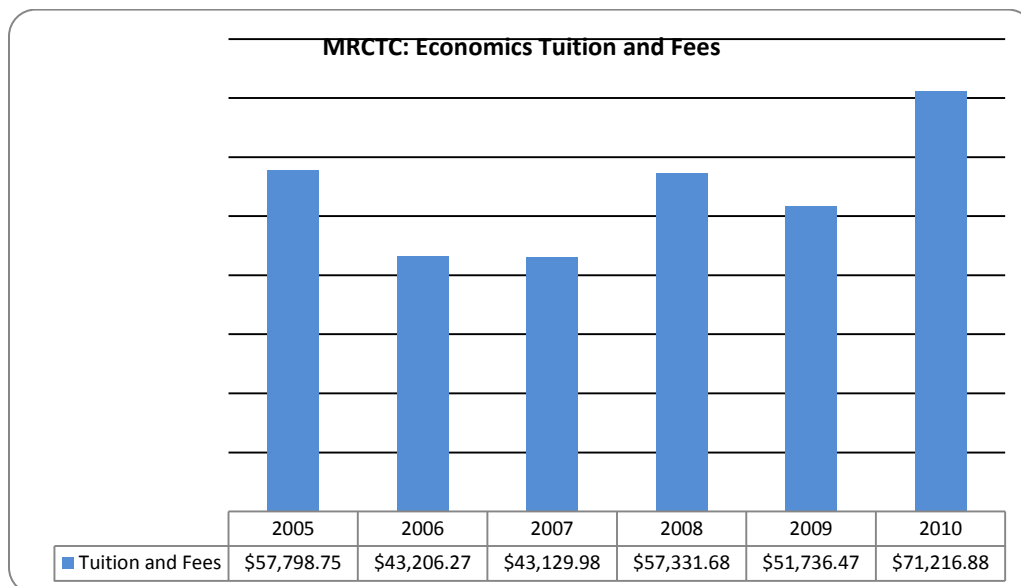
**NOTE: Obtain the resources and data listed above from NHED Institutional Research**

Overall enrollment in department courses continues to be strong, and the efficiency of instruction is also strong when compared to economics and geography courses in NHED. The department struggles to compare favorably with system-wide averages as is common for almost all NHED program. More information on these topics is provided in the two sections that follow.



As can be seen in the graph above, geography courses alone averaged \$90,838.56 in student tuition and fees per fiscal year over the 2005-2010 period. Fiscal year 2010 resulted in the highest figure, at \$110,566.59. While further analysis is needed to compare efficiency (shown below) with NHED and system-wide figures, it can be determined from this information that tuition and fees for geography instruction provide significant revenue to MRCTC.

Revenue from economics courses is added to this analysis, as follows:



Over the 2005-2010 fiscal year period, revenue from tuition and fees for economics courses averaged \$54,070.01 per year, with the highest figure in FY 2010 at \$71,216.88. Thus, from 2005-2010, the Economics and Geography Department at MRCTC averaged a total of \$144,908.57 in tuition and fees per academic year. (The 2011 figure was \$181,783.47. An estimated state appropriation amount of \$82,000 can be added, based on figures described below, for a total revenue injection to MRCTC of \$283,783.47 in 2011.)

To determine efficiency, cost data are required. For geography, cost studies indicate that over the 2003 to 2009 period, average state appropriations per FYE at MRCTC averaged \$2,153.42. As is shown in the table below, geography instruction at MRCTC is the most efficient of all the NHED colleges offering geography courses. (Rainy River College is excluded because geography courses were only offered during the 2004 academic year over this time horizon.)

FY	GEOG: Average State Appropriations per FYE				
	MRCTC	HCC	ICC	VCC	MNSCU
2003	\$2,864.70	\$1,864.93	\$1,286.23	\$3,460.80	\$1,559.48
2004	\$1,482.50	\$1,792.69	\$3,668.73	\$2,870.91	\$1,496.70
2005	\$2,004.64	\$3,314.52	\$3,248.94	\$2,214.09	\$1,613.37
2006	\$1,890.02	\$3,744.41	\$4,100.56	\$2,653.86	\$1,689.29
2007	\$2,470.70	\$2,470.70	\$2,470.70	\$2,470.70	\$1,676.11
2008	\$2,070.38	\$4,343.42	\$3,976.19	\$1,511.89	\$1,739.45
2009	\$2,291.01	\$4,019.93	\$4,347.05	\$1,848.21	\$1,777.90

<b>AVG</b>	<b>\$2,153.42</b>	<b>\$3,078.66</b>	<b>\$3,299.77</b>	<b>\$2,432.92</b>	<b>\$1,650.33</b>
<b>% DIFF</b>	<b>30.48%</b>	<b>86.55%</b>	<b>99.95%</b>	<b>47.42%</b>	<b>0.00%</b>

Even though MRCTC geography instruction is the most efficient NHED geography program, cost of instruction falls outside the band determined by MNSCU that is used to compare statewide costs. If the 92%-112% band is used (it seems to vary slightly from year to year), state appropriations per FYE for geography instruction should fall between \$1,518.30 and \$1,848.37. Thus, state appropriations would need to fall about \$10 per credit to meet MNSCU guidelines. (Assuming FYE = 30 undergraduate credits per academic year.)

The same analysis can be conducted for economic instruction at MRCTC.

	<b>ECON: Average State Appropriations per FYE</b>					
<b>FY</b>	<b>MRCTC</b>	<b>HCC</b>	<b>ICC</b>	<b>VCC</b>	<b>RCC</b>	<b>MNSCU</b>
<b>2003</b>	<b>\$2,889.10</b>	<b>\$2,864.51</b>	<b>\$1,028.82</b>	<b>\$1,771.28</b>	<b>\$2,077.48</b>	<b>\$1,746.92</b>
<b>2004</b>	<b>\$1,869.51</b>	<b>\$2,862.81</b>	<b>\$1,710.57</b>	<b>\$1,844.28</b>	<b>\$2,090.07</b>	<b>\$1,607.62</b>
<b>2005</b>	<b>\$1,222.01</b>	<b>\$2,903.13</b>	<b>\$1,500.64</b>	<b>\$2,202.76</b>	<b>\$2,136.62</b>	<b>\$1,538.87</b>
<b>2006</b>	<b>\$1,674.59</b>	<b>\$3,295.86</b>	<b>\$1,999.46</b>	<b>\$3,000.28</b>	<b>\$2,495.37</b>	<b>\$1,674.42</b>
<b>2007</b>	<b>\$1,911.30</b>	<b>\$1,911.30</b>	<b>\$1,911.30</b>	<b>\$1,911.30</b>	<b>\$1,911.30</b>	<b>\$1,677.00</b>
<b>2008</b>	<b>\$1,872.26</b>	<b>\$4,089.47</b>	<b>\$1,407.56</b>	<b>\$1,395.39</b>	<b>\$2,530.63</b>	<b>\$1,844.95</b>
<b>2009</b>	<b>\$1,777.18</b>	<b>\$2,730.25</b>	<b>\$2,158.47</b>	<b>\$1,073.79</b>	<b>\$2,525.66</b>	<b>\$1,834.93</b>
<b>AVG</b>	<b>\$1,887.99</b>	<b>\$2,951.05</b>	<b>\$1,673.83</b>	<b>\$1,885.58</b>	<b>\$2,252.45</b>	<b>\$1,703.53</b>
<b>% DIFF</b>	<b>10.83%</b>	<b>73.23%</b>	<b>-1.74%</b>	<b>10.69%</b>	<b>32.22%</b>	<b>0.00%</b>

As can be seen in the table directly above, the cost of economic instruction at MRCTC falls within MNSCU guidelines when measured over the 2003 to 2009 time period. Average state appropriations for economic instruction at MRCTC are 10.83% higher than the overall MNSCU average, which is acceptable given the 92% to 112% bandwidth. Economic instruction at MRCTC is also very competitive in NHED. The cost of instruction is significantly lower than that experienced by Hibbing Community College and Rainy River Community College. It is essentially the same as the cost of instruction at Vermilion Community College, and is somewhat higher than the cost at Itasca Community College.

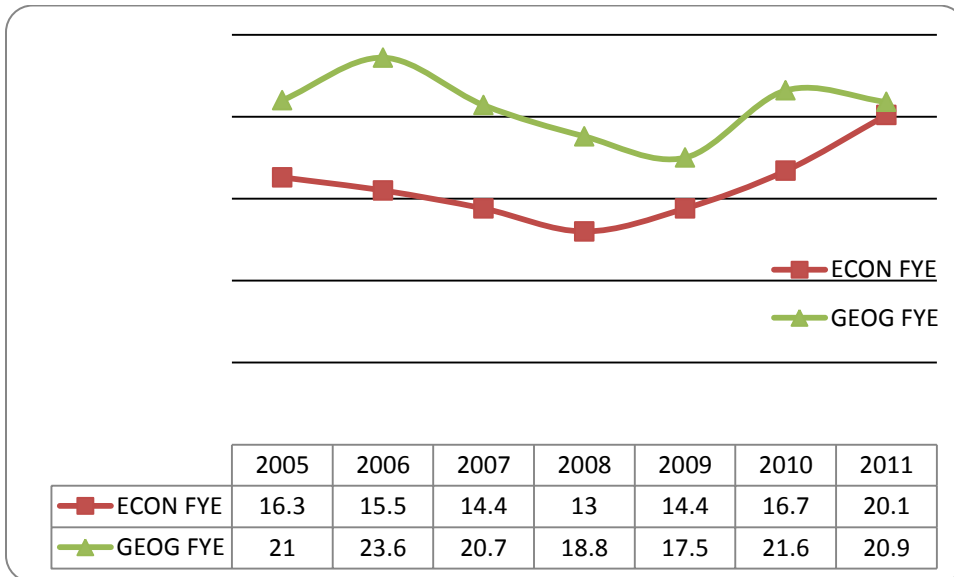
In summary, the economics and geography department at MRCTC generates substantial revenue for the college. And, the efficiency of instruction (as measured by MNSCU appropriations) is highly competitive. Like almost all NHED programs, overall cost of instruction tends to be somewhat higher than the statewide average, but when the two disciplines are combined the overcharge is small.

**Review and assessment of program recruiting, placement data, enrollment trends, and retention data. Consider the past three to five year window. The following should be considered:**

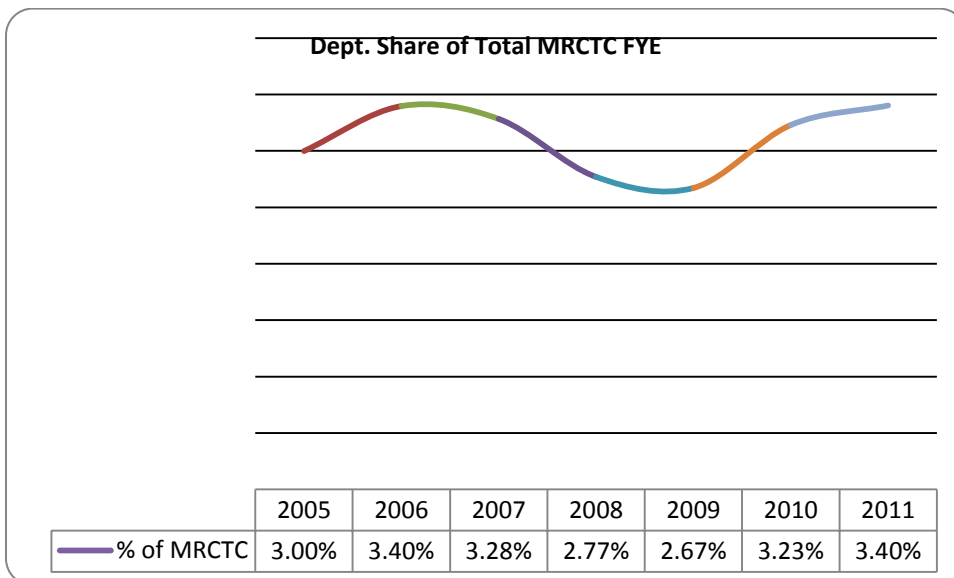
- **Student recruitment**
- **Addressing new audiences**
- **Student placement devices**
- **Student retention techniques**
- **Enrollment statistics, trends, and limitations**
- **Concurrent Enrollment Program / PSEO / ALI**
- **Articulation agreements**

- Printed material review
- Technical programs must include annual graduation total for program and annual occupational placement in related field total

Enrollment in economics and geography at MRCTC is strong. The table below shows FYE trends in geography and economics from 2005 through 2011. In 2011, enrollment in the department equaled 41.0 FYE.



The somewhat significant reduction in enrollment in 2008 and 2009 may be partially attributed to the sabbatical taken by Dr. Kelson during the fall 2008 semester. After he resumed full teaching responsibilities, department enrollment began to increase again, reaching its highest point over the time horizon during the 2011 academic year.



The number of students who enroll in economics and geography at MRCTC represents a significant share of overall enrollment. The table above shows that, currently, 3.40% of all FYE at MRCTC can be attributed to economics and geography enrollment. If all faculty members at MRCTC taught a similar share of students, the college could be fully staffed by 29 to 30 full-time instructors. As of the 2010 academic year, the college had 49 full-time and 40 part-time instructors. Differences in program needs are recognized. The statement made here is to point out that the economics and geography department remains one of the most efficient departments at MRCTC, which can help facilitate support for programs that are more costly to administer.

These figures indicate that enrollment and sustained interest in the department is strong and that continued support by administration is recommended.

**Review and assessment of facilities and equipment. The following should be considered:**

- **Classrooms – size, technology, access**
- **Technology – software**
- **Technology – hardware**
- **Equipment – appropriate for program, properly maintained, accessible**

The facilities provided the economics and geography departments are adequate for department needs. Most on-campus classes are taught in the room C175 at MRCTC. This room has 190 seats, and enrollment varies from about 30 to 60 students per course.

C175 is equipped with the audio-visual technology that is essential or instruction in both disciplines. Geography courses, in particular, depend highly on visual teaching aides. Prior to a college remodel (completed about five years ago), all geography courses were taught in a dedicated classroom with maps, globes, and other geographic models. The same images can now be displayed with audio visual technology that is Internet dependent. C175 meets these needs. Important programs, such as GoogleEarth, are also available to the department.

As for all online courses taught at MRCTC, department online courses depend on access to and support for D2L. This online platform is well supported by a skilled technology department at MRCTC.

**Chapter 5 Summary of Strengths and Challenges**

**Review and assessment of program strengths over the past three years. The following should be considered:**

- **Focus on program strengths**
- **Implication for department and student learning**
- **Individual faculty achievements should demonstrate how they strengthen the program**

The economics and geography department's assessments of program strengths include:

1. Innovative instruction methods
2. Local focus added to general discipline material
3. Online components
4. Continuity and transferability
5. Current events focus
6. Efficient or highly competitive cost of instruction

7. Revenue generation
8. Applied learning

The implications of these strengths for the economics and geography department and student learning are include likely strong future enrollment in the department, with appeal to a wide range of students: non-traditional, distance learning, post secondary, and traditional.

In order to maintain these strengths, these things must be considered:

Although the department is an important revenue generating program for MRCTC, budgets for the department remain minimal (only about \$650 per academic year, most of which is used for copying expenses.) The department could be strengthened with a more competitive budget that would allow guest speakers, dedicated software programs, more participation in national or regional discipline organizations, and field trips. Increasing the budget to \$1,500 per year would provide significant flexibility for the department.

**Review and assessment of program challenges over the past three years. The following should be considered:**

- **Focus on program strengths**
- **Implications for the department and student learning**

The economics and geography department's assessments of program challenges are:

1. The department is staffed by a single instructor.
2. Connections with credit-based business instruction at MRCTC remain weak.
3. The budget is small, reducing innovative teaching and learning opportunities.

The implications of these challenges for the economics and geography department and student learning are continued vulnerability of the program should Dr. Kelson be required to assume additional teaching duties, such as business department courses.

Strategies for closing the gap between the challenges and department goals and student learning are:

- Encourage administration to consider having Dr. Don Johnson teach a geography class occasionally so that Dr. Kelson can help facilitate a stronger connection between business and economic courses at MRCTC. Dr. Kelson could teach business courses, but it may be unwise to consider this without ensuring that geography courses are well provided for while this is being done.
- Continue to request a more reasonable budget that will allow for more participation in regional and national discipline organizations, including having sufficient funding to conduct small research projects that could be published in discipline journals. These projects would always have a direct connection to material being studied in the classroom.
- 

## **Chapter 6 Future Direction**

- 
- Recommendations and plan for improving department's program to aid student learning, fiscal and program efficiencies, and support for Mesabi Range Community and Technical College's

short term and long term goals. The following should be considered:

- Short term direction should look one to two years out
- Long term direction- up to four years
- Non-fiscal plans not requiring budget
- Fiscal related plans requiring budget
- Existing gaps
- Plan for making improvements that involve budgetary decision-making. If additional faculty or staff is recommended, please include a detailed analysis of cost, FTE information, and justification. If a report includes recommendations that involve budget decisions, the program must be responsible for taking the request through the appropriate budget process during the following year.

The economics and geography department's short term (1-2 years) direction is:

- Continue to provide students with high-quality, affordable, study material
- Continue to stress innovative (multiple intelligences) learning models
- Continued reliance on information technology in the classroom
- Continue to enhance the new introduction to the world economy class
- Form a stronger partnership with Dr. Don Johnson and whomever is involved in teaching business classes

The economics and geography department's long term (up to 4 years) direction is:

- Develop more internship opportunities with the help of the Center for Ideation and Innovation at MRCTC
- Consider providing administration with information to study the potential of realigning departments at MRCTC, such as creating a business/economics department and a geography/anthropology department. Dr. Kelson has a rare educational background that enables him to teach both economics and geography. Should he no longer be employed at MRCTC or if his position were to change, the college would more likely be able to maintain department continuity if economics was paired with business and geography was paired with anthropology and/or other natural sciences. Given the strength of both economics and geography, it would be unfortunate if a potential realignment was not considered.

- Appendix Attachments

•

- Program Plans (Obtain from Instructional Services director)
- Instructional Cost Studies (Obtain from NHED Institutional Research)
- Survey Results
- Back Up Data

Enrollment Cost Data for Economics

Subj	Cou_Nbr	Abbr_Title	Fy	Yrtr	No. of Students	FYE	Total Cost	Cost per FYE
ECON	1555	Surv of Econ	2006	20063	43	4.3	\$7,629.00	\$1,774.19
ECON	1555	Surv of Econ	2006	20065	24	2.4	\$83.00	\$34.58
ECON	1555	Surv of Econ	2007	20073	37	3.7	\$14,090.00	\$3,808.11
ECON	1555	Surv of Econ	2007	20075	24	2.4	\$7,045.00	\$2,935.42
ECON	1555	Surv of Econ	2008	20083	39	3.9	\$14,244.00	\$3,652.31
ECON	1555	Surv of Econ	2008	20085	16	1.6	\$7,122.00	\$4,451.25
ECON	1555	Surv of Econ	2009	20093	58	5.8	\$17,048.00	\$2,939.31
ECON	1555	Surv of Econ	2010	20103	48	4.8	\$15,294.00	\$3,186.25
ECON	1555	Surv of Econ	2011	20113	57	5.7	\$15,404.00	\$2,702.46
ECON	1556	Econ Micro	2006	20061	15	1.5	\$5,190.00	\$3,460.00
ECON	1556	Econ Micro	2006	20063	34	3.4	\$7,546.00	\$2,219.41
ECON	1556	Econ Micro	2007	20071	7	0.7	\$6,234.00	\$8,905.71
ECON	1556	Econ Micro	2007	20073	35	3.5	\$7,045.00	\$2,012.86
ECON	1556	Econ Micro	2008	20083	41	4.1	\$7,122.00	\$1,737.07
ECON	1556	Econ Micro	2008	20085	32	3.2	\$7,122.00	\$2,225.63
ECON	1556	Econ Micro	2009	20093	38	3.8	\$8,524.00	\$2,243.16
ECON	1556	Econ Micro	2009	20095	16	1.6	\$5,485.00	\$3,428.13
ECON	1556	Econ Micro	2010	20103	52	5.2	\$7,647.00	\$1,470.58
ECON	1556	Econ Micro	2010	20105	27	2.7	\$7,647.00	\$2,832.22
ECON	1556	Econ Micro	2011	20113	48	4.8	\$7,702.00	\$1,604.58
ECON	1556	Econ Micro	2011	20115	34	3.4	\$7,702.00	\$2,265.29
ECON	1557	Econ Macro	2006	20065	39	3.9	\$7,546.00	\$1,934.87
ECON	1557	Econ Macro	2007	20075	41	4.1	\$7,045.00	\$1,718.29
ECON	1557	Econ Macro	2008	20085	32	3.2	\$7,122.00	\$2,225.63
ECON	1557	Econ Macro	2009	20095	32	3.2	\$5,485.00	\$1,714.06
ECON	1557	Econ Macro	2010	20105	25	2.5	\$7,647.00	\$3,058.80
ECON	1557	Econ Macro	2011	20115	40	4	\$7,702.00	\$1,925.50
ECON	1565	Intro to the World Econom	2010	20103	15	1.5	\$7,647.00	\$5,098.00
ECON	1565	Intro to the World Econom	2011	20113	20	2	\$7,702.00	\$3,851.00

Enrollment Cost Data for Geography

Subj	Cou_Nbr	Abbr_Title	Fy	Yrtr	No of Students	FYE	Total Cost	Cost per FYE
GEOG	1555	Physical Geog	2006	20061	22	2.2	\$ 5,184.00	\$ 2,356.36
GEOG	1555	Physical Geog	2006	20063	73	7.3	\$ 15,078.00	\$ 2,065.48
GEOG	1555	Physical Geog	2006	20065	58	5.8	\$ 7,539.00	\$ 1,299.83
GEOG	1555	Physical Geog	2007	20071	17	1.7	\$ 5,503.00	\$ 3,237.06
GEOG	1555	Physical Geog	2007	20073	54	5.4	\$ 12,628.00	\$ 2,338.52
GEOG	1555	Physical Geog	2007	20075	62	6.2	\$ 6,314.00	\$ 1,018.39
GEOG	1555	Physical Geog	2008	20081	20	2.0	\$ 6,154.00	\$ 3,077.00
GEOG	1555	Physical Geog	2008	20083	74	7.4	\$ 14,036.00	\$ 1,896.76
GEOG	1555	Physical Geog	2008	20085	60	6.0	\$ 7,018.00	\$ 1,169.67
GEOG	1555	Physical Geog	2009	20091	24	2.4	\$ 9,190.00	\$ 3,829.17
GEOG	1555	Physical Geog	2009	20093	56	5.6	\$ 9,885.00	\$ 1,765.18
GEOG	1555	Physical Geog	2009	20095	48	4.8	\$ 6,845.00	\$ 1,426.04
GEOG	1555	Physical Geog	2010	20101	34	3.4	\$ 5,837.00	\$ 1,716.76
GEOG	1555	Physical Geog	2010	20103	90	9.0	\$ 13,798.00	\$ 1,533.11
GEOG	1555	Physical Geog	2010	20105	57	5.7	\$ 6,899.00	\$ 1,210.35
GEOG	1555	Physical Geog	2011	20111	22	2.2	\$ 6,741.00	\$ 3,064.09
GEOG	1555	Physical Geog	2011	20113	86	8.6	\$ 15,364.00	\$ 1,786.51
GEOG	1555	Physical Geog	2011	20115	47	4.7	\$ 7,682.00	\$ 1,634.47
GEOG	1556	Human Geog	2006	20065	34	3.4	\$ 7,615.00	\$ 2,239.71
GEOG	1556	Human Geog	2007	20075	34	3.4	\$ 6,360.00	\$ 1,870.59
GEOG	1556	Human Geog	2008	20085	10	1.0	\$ 7,018.00	\$ 7,018.00
GEOG	1556	Human Geog	2009	20095	12	1.2	\$ 6,845.00	\$ 5,704.17
GEOG	1556	Human Geog	2010	20105	11	1.1	\$ 6,899.00	\$ 6,271.82
GEOG	1556	Human Geog	2011	20115	33	3.3	\$ 7,682.00	\$ 2,327.88
GEOG	1557	Cons Nat Resou	2006	20063	15	1.5	\$ 7,539.00	\$ 5,026.00
GEOG	1557	Cons Nat Resou	2006	20065	34	3.4	\$ 7,539.00	\$ 2,217.35
GEOG	1557	Cons Nat Resou	2007	20073	11	1.1	\$ 6,314.00	\$ 5,740.00
GEOG	1557	Cons Nat Resou	2007	20075	29	2.9	\$ 6,314.00	\$ 2,177.24
GEOG	1557	Cons Nat Resou	2008	20085	24	2.4	\$ 7,018.00	\$ 2,924.17
GEOG	1557	Cons Nat Resou	2009	20095	35	3.5	\$ 6,845.00	\$ 1,955.71
GEOG	1557	Cons Nat Resou	2010	20105	24	2.4	\$ 6,899.00	\$ 2,874.58
GEOG	1557	Cons Nat Resou	2011	20115	20	2.0	\$ 7,682.00	\$ 3,841.00

MESABI RANGE COMMUNITY & TECHNICAL COLLEGE – VIRGINIA/EVELETH

Course Outline

<b>Course Title:</b>	<b>Survey of Economics</b>	<b>Submitted By:</b>	<b>Aaron Kelson</b>
<b>Semester Course Prefix and Number:</b>	<b>ECON 1555</b>	<b>Approval Date:</b>	<b>Jan. 2003</b>
<b>Old Quarter Course Prefix and Number:</b>	<b>ECON 110</b>	<b>Revision Date:</b>	<b>April 2010</b>
<b>Number of Credits:</b>	<b>3</b>	<b>Number of Lecture Credits:</b>	<b>3</b>
<b>Semester(s) Offered:</b>		<b>Number of Lab Credits:</b>	<b>Number of Lab Hours:</b>
<b>Negotiated Class Size:</b>		<b>Number of Studio/Demonstration/Internship Credits:</b>	

**Course Purpose Code:**

- 0 – Developmental Courses
- 1 – Non-transferable, General Education
- 2 – Technical course related to career programs
- 3 – College course which has the primary goal of applying certain concepts (e.g. vocal ensemble)
- 4 – Other college course not considered a part of general education (MNTC) e.g. computer science, health, physical education
- 5 – Course which is intended to fulfill the Minnesota Transfer Curriculum (MNTC) requirements.
- 9 – Continuing Education/Customized Training specialized credit course (not occurring in 0-5)

**Catalog Description:**

This course is an introduction to economics, including information on supply and demand, the consumer’s role, the producer’s role, impact of government, money and banking, and global trade.

**Prerequisites and/or recommended entry skills/knowledge:**

Course Prerequisite(s): None  
Reading Prerequisite: CPT score in reading of 78 or higher  
Composition Prerequisite: None  
Mathematics Prerequisite: N/A

**Career Programs and Transfer Majors Accessing this Course:**

**Minnesota Transfer Curriculum Goal(s) partially met by this course if applicable:** Notes: No more than two goals may be met by any one course. (Curriculum Committee review and the Chief Academic Officer’s approval are required).

- |   |  |
|---|--|
| 0. <input type="checkbox"/> None              | 6. <input type="checkbox"/> The Humanities and Fine Arts   |
| 1. <input type="checkbox"/> Communications    | 7. <input type="checkbox"/> Human Diversity                |
| 2. <input type="checkbox"/> Critical Thinking | 8. <input checked="" type="checkbox"/> Global Perspectives |

- |  |  |                              |                                  |
|--|--|------------------------------|----------------------------------|
| 3. <input type="checkbox"/>            | Natural Sciences                               | 9. <input type="checkbox"/>  | Ethical and Civic Responsibility |
| 4. <input type="checkbox"/>            | Mathematical/Logical Reasoning                 | 10. <input type="checkbox"/> | People and the Environment       |
| 5. <input checked="" type="checkbox"/> | History and the Social and Behavioral Sciences |                              |                                  |

**Learning outcomes, including any relevant competencies listed in the Minnesota Transfer Curriculum:**

Students will examine social institutions and processes across a range of historical periods and cultures by becoming familiar with the evolution of macroeconomic policy in the United States as influenced by European thought.

Students will use and critique alternative explanatory systems or theories by participating in a number of in-class games and/or experiments designed to demonstrate how fiscal and monetary policies work to increase output or reduce inflation in a given economy.

Students will develop and communicate alternative explanations or solutions for contemporary issues by using their understanding of economic systems to suggest ways the economy of northeast Minnesota could be stabilized and strengthened.

Students will describe and analyze political, economic, and cultural elements that influence relations of states and societies by learning about the evolution of international trade laws, the emergence of national debt, and the influence of war on economies.

Students will understand the role of a world citizen and the responsibility world citizens share for their common global future by reading and being taught about the consequences of their consumption choices on people and societies other than their own.

**Student assessment methods:**

Four subject-specific tests and a comprehensive final will be administered.  
 Twelve in-class exercises will be given with emphasis on group participation.  
 Twelve take-home assignments will be given.

**Use of instructional technology** (includes software, interactive video and other instructional technologies):

PowerPoint presentations, economic games and/or experiments using spreadsheet programs, videos when appropriate, and course material on the Internet accessible through WebCT.

**Outline of the major course content:**

- I. Overview of Economics
- II. The Macroeconomy
- III. Money and Banking
- IV. Alternative Viewpoints of the Macroeconomy
- V. Microeconomics
- VI. International Sector

**Additional special information** (special fees, directives on hazardous materials, etc.)

**Transfer Information:** (Please list colleges/majors that accept this course in transfer.)

**Approvals:**

Body	Representative Signatures	Date
Curriculum Committee		

Faculty Association		
Meet and Confer		
Chief Academic Officer		

Distribution: Original – Administrative Office, Library, Learning Center, Records, Student Services, Curriculum Committee Chair

MESABI RANGE COMMUNITY & TECHNICAL COLLEGE – VIRGINIA/EVELETH

Course Outline

<b>Course Title:</b>	<b>Principles of Economics: Micro</b>	<b>Submitted By:</b>	<b>Aaron Kelson</b>
<b>Semester Course Prefix and Number:</b>	<b>ECON 1556</b>	<b>Approval Date:</b>	<b>Jan. 2003</b>
<b>Old Quarter Course Prefix and Number:</b>	<b>ECON 210</b>	<b>Revision Date:</b>	<b>April 2010</b>
<b>Number of Credits:</b>	<b>3</b>	<b>Number of Lecture Credits:</b>	<b>3</b>
<b>Semester(s) Offered:</b>		<b>Number of Lab Credits:</b>	<b>Number of Lab Hours:</b>
<b>Negotiated Class Size:</b>		<b>Number of Studio/Demonstration/Internship Credits:</b>	

**Course Purpose Code:**

- 0 – Developmental Courses
- 1 – Non-transferable, General Education
- 2 – Technical course related to career programs
- 3 – College course which has the primary goal of applying certain concepts (e.g. vocal ensemble)
- 4 – Other college course not considered a part of general education (MNTC) e.g. computer science, health, physical education
- 5 – Course which is intended to fulfill the Minnesota Transfer Curriculum (MNTC) requirements.
- 9 – Continuing Education/Customized Training specialized credit course (not occurring in 0-5)

**Catalog Description:**

This course is an introduction to economics, including information on supply and demand, the consumer's role, the producer's role, impact of government, money and banking, and global trade.

**Prerequisites and/or recommended entry skills/knowledge:**

Course Prerequisite(s): None  
 Reading Prerequisite: CPT score in reading of 78 or higher  
 Composition Prerequisite: None  
 Mathematics Prerequisite: Good knowledge of elementary algebra

**Career Programs and Transfer Majors Accessing this Course:**

Business related programs: accounting, finance, marketing. Political science.

**Minnesota Transfer Curriculum Goal(s) partially met by this course if applicable:** Notes: No more than two goals may be met by any one course. (Curriculum Committee review and the Chief Academic Officer's approval are required).

- |   |  |
|---|--|
| 0. <input type="checkbox"/> None              | 6. <input type="checkbox"/> The Humanities and Fine Arts   |
| 1. <input type="checkbox"/> Communications    | 7. <input type="checkbox"/> Human Diversity                |
| 2. <input type="checkbox"/> Critical Thinking | 8. <input checked="" type="checkbox"/> Global Perspectives |

- |  |  |                              |                                  |
|--|--|------------------------------|----------------------------------|
| 3. <input type="checkbox"/>            | Natural Sciences                               | 9. <input type="checkbox"/>  | Ethical and Civic Responsibility |
| 4. <input type="checkbox"/>            | Mathematical/Logical Reasoning                 | 10. <input type="checkbox"/> | People and the Environment       |
| 5. <input checked="" type="checkbox"/> | History and the Social and Behavioral Sciences |                              |                                  |

**Learning outcomes, including any relevant competencies listed in the Minnesota Transfer Curriculum:**

Students will examine social institutions and processes across a range of historical periods and cultures by learning how global trade laws are evolving, how war expenditures have influenced economies, and how economic philosophy is expressed in national laws and policies.

Students will use and critique alternative explanatory systems or theories by learning how labor and entrepreneurial activity are used to promote economic growth according to different economic traditions.

Students will develop and communicate alternative explanations or solutions for contemporary issues by using their understanding of economic systems to suggest ways the economy of northeast Minnesota could be stabilized and strengthened.

Students will describe and analyze political, economic, and cultural elements that influence relations of states and societies by learning how economic systems dominated by self-interested, rational behavior, allocate scarce resources among competing ends.

Students will understand the role of a world citizen and the responsibility world citizens share for their common global future by reading and being taught about the consequences of their consumption choices on people and societies other than their own.

**Student assessment methods:**

Four subject-specific tests and a comprehensive final will be administered.

Twelve in-class exercises will be given with emphasis on group participation.

Twelve take-home assignments will be given.

**Use of instructional technology** (includes software, interactive video and other instructional technologies):

PowerPoint presentations, videos when appropriate, in-class group projects using spreadsheet programs, and course material on the Internet accessible through WebCT.

**Outline of the major course content:**

- I. The Logic of Economics
- II. Theory of the Firm
- III. Resource and Factor Markets
- IV. Market Failures and International Trade

**Additional special information** (special fees, directives on hazardous materials, etc.)

**Transfer Information:** (Please list colleges/majors that accept this course in transfer.)

**Approvals:**

Body	Representative Signatures	Date
Curriculum Committee		

Faculty Association		
Meet and Confer		
Chief Academic Officer		

Distribution: Original – Administrative Office, Library, Learning Center, Records, Student Services, Curriculum Committee Chair

MESABI RANGE COMMUNITY & TECHNICAL COLLEGE – VIRGINIA/EVELETH

Course Outline

<b>Course Title:</b>	<b>Principles of Economics: Macro</b>	<b>Submitted By:</b>	<b>Aaron Kelson</b>
<b>Semester Course Prefix and Number:</b>	<b>ECON 1557</b>	<b>Approval Date:</b>	<b>Dec. 2003</b>
<b>Old Quarter Course Prefix and Number:</b>	<b>ECON 211</b>	<b>Revision Date:</b>	<b>April 2010</b>
<b>Number of Credits:</b>	<b>3</b>	<b>Number of Lecture Credits:</b>	<b>3</b>
<b>Semester(s) Offered:</b>		<b>Number of Lab Credits:</b>	<b>Number of Lab Hours:</b>
<b>Negotiated Class Size:</b>		<b>Number of Studio/Demonstration/Internship Credits:</b>	

**Course Purpose Code:**

- 0 – Developmental Courses
- 1 – Non-transferable, General Education
- 2 – Technical course related to career programs
- 3 – College course which has the primary goal of applying certain concepts (e.g. vocal ensemble)
- 4 – Other college course not considered a part of general education (MNTC) e.g. computer science, health, physical education
- 5 – Course which is intended to fulfill the Minnesota Transfer Curriculum (MNTC) requirements.
- 9 – Continuing Education/Customized Training specialized credit course (not occurring in 0-5)

**Catalog Description:**

This course is a study of the economy as a whole, including national income analysis, fiscal policy, money and banking, monetary policy and international trade.

**Prerequisites and/or recommended entry skills/knowledge:**

Course Prerequisite(s): None  
 Reading Prerequisite: CPT score in reading of 78 or higher  
 Composition Prerequisite: None  
 Mathematics Prerequisite: Good knowledge of elementary algebra

**Career Programs and Transfer Majors Accessing this Course:**

Business related programs:

- Accounting
- Finance
- Business, etc.

**Minnesota Transfer Curriculum Goal(s) partially met by this course if applicable:** Notes: No more than two goals may be met by any one course. (Curriculum Committee review and the Chief Academic Officer’s approval are required).

- |   |  |
|---|--|
| 0. <input type="checkbox"/> None              | 6. <input type="checkbox"/> The Humanities and Fine Arts   |
| 1. <input type="checkbox"/> Communications    | 7. <input type="checkbox"/> Human Diversity                |
| 2. <input type="checkbox"/> Critical Thinking | 8. <input checked="" type="checkbox"/> Global Perspectives |

- |  |  |                              |                                  |
|--|--|------------------------------|----------------------------------|
| 3. <input type="checkbox"/>            | Natural Sciences                               | 9. <input type="checkbox"/>  | Ethical and Civic Responsibility |
| 4. <input type="checkbox"/>            | Mathematical/Logical Reasoning                 | 10. <input type="checkbox"/> | People and the Environment       |
| 5. <input checked="" type="checkbox"/> | History and the Social and Behavioral Sciences |                              |                                  |

**Learning outcomes, including any relevant competencies listed in the Minnesota Transfer Curriculum:**

Students will examine social institutions and processes across a range of historical periods and cultures by learning how a central banking institution (the Federal Reserve) was formed in the United States in response to economic and cultural development.

Students will use and critique alternative explanatory systems or theories by learning about several macroeconomic viewpoints including the Keynesian, New Keynesian, Monetarist, Classical, New Classical, and Austrian schools.

Students will employ the methods and data that historians and social and behavioral scientists use to investigate the human condition by learning how to access economic data from the U.S. Bureau of Economic Analysis and then using that data to produce historical economic trend charts for northeast Minnesota.

Students will be able to describe and analyze political, economic, and cultural elements which influence relations of states and societies in their historical and contemporary dimensions by examining the evolution of global free trade and studying its impact on the economies of diverse nations.

Students will analyze specific international problems, illustrating the cultural, economic, and political differences that affect their solution by learning about the how demand for oil contributes to geopolitical instability, particularly in the Middle East.

**Student assessment methods:**

- Three subject-specific exams
- Ten take-home assignments
- A comprehensive final exam, objective and subjective type questions

**Use of instructional technology** (includes software, interactive video and other instructional technologies):

PowerPoint presentations, videos when appropriate, in-class group projects, Internet readings.

**Outline of the major course content:**

- Macroeconomic problems: unemployment, inflation, and economic growth
- Aggregate demand/supply, equilibrium theory, and fiscal policy
- The role of money, credit, and monetary policy
- International economics: trade, foreign exchange, and the role of fiscal and monetary policy

**Additional special information** (special fees, directives on hazardous materials, etc.)

**Transfer Information:** (Please list colleges/majors that accept this course in transfer.) Accepted at all 4-year colleges as a lower division general education course. Majors: Economics, Business, Sociology, Natural Resources, Engineering, Political Science, Philosophy.

**Approvals:**

Body	Representative Signatures	Date
Curriculum Committee		
Faculty Association		
Academic Affairs Standards Council		
Chief Academic Officer		

Distribution: Original – Administrative Office

Copies: Curriculum Committee Chair, Learning Center, Library, Originating Faculty Member, Records, Student Services, Scheduler, Transfer Specialist

# MESABI RANGE COMMUNITY & TECHNICAL COLLEGE

## Course Outline

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<b>Course Title:</b>	<b>Introduction to the World Economy</b>	<b>Submitted By:</b>	<b>Aaron R. Kelson</b>
<b>Semester Course Prefix and Number:</b>	<b>ECON 1565</b>	<b>Approval Date:</b>	<b>November 2008</b>
<b>Old Quarter Course Prefix and Number:</b>		<b>Revision Date:</b>	
<b>Number of Credits:</b>	<b>3</b>	<b>Number of Lecture Credits:</b>	<b>3</b>
<b>Semester(s) Offered:</b>		<b>Number of Lab Credits:</b>	<b>Number of Lab Hours:</b>
<b>Class Size:</b>	<b>30</b>	<b>Number of Studio/Demonstration/Internship Credits:</b>	
<b>Negotiated by AASC on: (date)</b>			

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### Course Purpose Code:

- 0** – Developmental Courses
- 1** – Non-transferable, General Education
- 2** – Technical course related to career programs
- 3** – College course which has the primary goal of applying certain concepts (e.g. vocal ensemble)
- 4** – Other college course not considered a part of general education (MNTC) (e.g. computer science, health, physical education)
- 5** – Course which is intended to fulfill the Minnesota Transfer Curriculum (MNTC) requirements or intended for transfer.
- 9** – Continuing Education/Customized Training specialized credit course (not occurring in 0-5)

### Catalog Description:

This course introduces the demographic, historical, economic, legal, and other social factors that continue to contribute to the World's increasingly connected economy. Trade in goods and services as well as trade in knowledge and capital are examined. International differences and the global money system are highlighted in international investment decision making. Case studies that describe best management practices for successful trade in the world economy are reviewed.

### Prerequisites and/or recommended entry skills/knowledge:

Course Prerequisite(s): None  
Reading Prerequisite: College level reading  
Composition Prerequisite:  
Mathematics Prerequisite:

### Career Programs and Transfer Majors Accessing this Course:

economics, international business, marketing, sociology, geography

### Minnesota Transfer Curriculum Goal(s) partially met by this course if applicable:

(Notes: No more than two goals may be met by any one course. Curriculum Committee review and the Chief Academic Officer's approval are required.)

- |   |  |
|---|--|
| 0. <input type="checkbox"/> None              | 6. <input type="checkbox"/> The Humanities and Fine Arts   |
| 1. <input type="checkbox"/> Communications    | 7. <input type="checkbox"/> Human Diversity                |
| 2. <input type="checkbox"/> Critical Thinking | 8. <input checked="" type="checkbox"/> Global Perspectives |

- |   |  |
|---|--|
| 3. <input type="checkbox"/> Natural Sciences  | 9. <input type="checkbox"/> Ethical and Civic Responsibility |
| 4. <input type="checkbox"/> Mathematical/Logical Reasoning                            | 10. <input type="checkbox"/> People and the Environment      |
| 5. <input checked="" type="checkbox"/> History and the Social and Behavioral Sciences |  |

**Learning Outcomes:** (including any relevant competencies listed in the Minnesota Transfer Curriculum)

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

1. Employ methods and data used to investigate the human condition by analyzing the emergence of international trade law in the context of political and technological advancements across time. Trend data from U.S. federal government agencies will be used in addition to text material.
2. Examine social institutions and processes across a range of historical periods and cultures by learning how differences in international culture affect trade patterns and practices.
3. Develop and communicate alternative explanations for contemporary social issues by learning the arguments both for and against increasing economic dependencies in the world economy.
4. Describe elements which influence relations of states and societies by learning how the world economy has either improved or degraded international relations among particular nations.
5. Demonstrate knowledge of cultural, social, religious, and linguistic differences by learning how culture can favor certain expansions in the world economy while discouraging others.
6. Analyze specific international problems by learning how particular trade treaties, such as NAFTA, have contributed to strain relationships between nations.
7. Understand the role of a world citizen by learning that successful participation in the global economy requires knowledge and respect for other cultures.

**Student Assessment Methods:**

Students will be tested on each of the five major sections of the course: an overview of trade, country differences, cross-border trade and investment, global money system, and competing in the world economy. Students will write a research paper explaining the economic connections between two particular nations, emphasizing historical, cultural, and technological factors. Students will participate in graded group and/or class discussions about current world economy issues.

**Use of Instructional Technology:** (includes software, interactive video and other instructional technologies):

This course will be taught on-line using D2L. Online video content, including news reports and analysis, will be assigned. Course notes will be formatted using a variety of software including Word, PowerPoint, and Excel. Internet government and non-profit data sources will be heavily used.

**Outline or Statement of Major Course Content:**

- A. Overview
  1. Global economy: Drivers, demographics, conflicting viewpoints
- B. Country Differences
  1. Political systems, legal systems, economic development, culture, religion, language, education
  2. Ethics in the world economy
- C. Cross-Border Trade and Investment
  1. Economic trade theories
  2. Instruments of trade policy
  3. Historical progress of trade agreements
  4. Foreign direct investment
  5. Regional economic integration
- D. Global Money System
  1. Foreign exchange market
  2. International monetary system
- E. Competing in the World Economy
  1. Successful strategies
  2. Entering foreign markets
  3. Exporting, importing, and countertrade
  4. Outsourcing and logistics
  5. Marketing and research and development
  6. Global human resource management

**Additional Special Information:** (special fees, directives on hazardous materials, etc.)

**Transfer Information:** (Please list colleges/majors that accept this course in transfer.)

**Approvals:**

Body	Representative Signatures	Date
Curriculum Committee		
Faculty Association		
Academic Affairs Standards Committee		
Chief Academic Officer		

**Distribution:** Original – Administrative Office

**Copies:** Curriculum Committee Chair, AASC Chair, Transfer Specialist, Originating Faculty Member, Scheduler, Records, Student Services, Learning Center, Library

**Revised:** October 2006

MESABI RANGE COMMUNITY & TECHNICAL COLLEGE –  
VIRGINIA/EVELETH

Course Outline

<b>Course Title:</b>	<b>Physical Geography</b>	<b>Submitted By:</b>	<b>Aaron Kelson</b>
<b>Semester Course Prefix and Number:</b>	<b>GEOG 1555</b>	<b>Approval Date:</b>	<b>Dec. 2002</b>
<b>Old Quarter Course Prefix and Number:</b>	<b>GEOG 110</b>	<b>Revision Date:</b>	<b>Sept. 2010</b>
<b>Number of Credits:</b>	<b>3</b>	<b>Number of Lecture Credits:</b>	<b>3</b>
<b>Semester(s) Offered:</b>		<b>Number of Lab Credits:</b>	<b>Number of Lab Hours:</b>
<b>Negotiated Class Size:</b>		<b>Number of Studio/Demonstration/Internship Credits:</b>	

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**Course Purpose Code:**

- 0 – Developmental Courses
- 1 – Non-transferable, General Education
- 2 – Technical course related to career programs
- 3 – College course which has the primary goal of applying certain concepts (e.g. vocal ensemble)
- 4 – Other college course not considered a part of general education (MNTC) e.g. computer science, health, physical education
- 5 – Course which is intended to fulfill the Minnesota Transfer Curriculum (MNTC) requirements.
- 9 – Continuing Education/Customized Training specialized credit course (not occurring in 0-5)

**Catalog Description:**

This course offers an introduction to the dominant spatial patterns of the physical earth with emphasis on weather and climate, oceanic currents, soil, weathering, and landforms.

**Prerequisites and/or recommended entry skills/knowledge:**

Course Prerequisite(s): None  
Reading Prerequisite: CPT score in reading of 78 or higher  
Composition Prerequisite: None  
Mathematics Prerequisite: None

**Career Programs and Transfer Majors Accessing this Course:**

Any

**Minnesota Transfer Curriculum Goal(s) partially met by this course if applicable:** Notes: No more than two goals may be met by any one course. (Curriculum Committee review and the Chief Academic Officer's approval are required).

0. None

6. \_\_\_\_\_ The Humanities and Fine Arts

- |  |  |                              |                                  |
|--|--|------------------------------|----------------------------------|
| 1. <input type="checkbox"/>            | Communications                                 | 7. <input type="checkbox"/>  | Human Diversity                  |
| 2. <input type="checkbox"/>            | Critical Thinking                              | 8. <input type="checkbox"/>  | Global Perspectives              |
| 3. <input checked="" type="checkbox"/> | Natural Sciences                               | 9. <input type="checkbox"/>  | Ethical and Civic Responsibility |
| 4. <input type="checkbox"/>            | Mathematical/Logical Reasoning                 | 10. <input type="checkbox"/> | People and the Environment       |
| 5. <input checked="" type="checkbox"/> | History and the Social and Behavioral Sciences |                              |                                  |

**Learning outcomes, including any relevant competencies listed in the Minnesota Transfer**

**Curriculum:**

Students will demonstrate understanding of scientific theories by becoming familiar with theories that explain climate and weather, soil formation, global climate change, and the genesis of existing landforms on earth.

Students will communicate their experimental findings, analyses, and interpretations both orally and in writing by completing in-class exercises on certain geographic subjects, including map projection, soil texture, and using laboratory tools to determine relative humidity.

Students will evaluate societal issues from a natural sciences perspective, ask questions about the evidence presented, and make informed judgments about science-related topics and policies by examining the role science and political factors play in the evolution of geographic issues such as global climate change and the depletion of atmospheric ozone.

Students will employ the methods and data that historians and social and behavior scientists use to investigate the human condition by learning how data are used to develop climate and weather, bio-region, soil, and landform maps.

Students will examine social institutions and processes across a range of historical periods and cultures by becoming familiar with the role of weather and climate, soil health, and landforms have in promoting economic and national development.

Students will develop and communicate alternative explanations or solutions for contemporary social issues by being assigned to read current material on global climate change and on pollution concentration in polar regions due to oceanic and atmospheric currents.

**Student assessment methods:**

Five subject-specific tests and a comprehensive final are assigned.

Twelve in-class assignments or experiments are assigned.

Students will engage in a lab-like experience by producing a video about local geographic features and/or by writing a report describing personal interactions with local geographic features.

**Use of instructional technology** (includes software, interactive video and other instructional technologies):

PowerPoint presentations, hands-on experiments such as map projection work, videos when appropriate, group projects, and Internet access to course material through the online platform.

**Outline of the major course content:**

- I. Introduction to the study of geography
- II. Weather and Climate
- III. Biogeography and soil development, characteristics, and classification
- IV. Landforms: Earth's interior, tectonic processes, gradation, underground water and karst formations, fluvial landforms, glacial systems, eolian landforms
- V. Oceans, climate patterns and systems: currents, coastal landforms, climatic regions

**Additional special information** (special fees, directives on hazardous materials, etc.)

**Transfer Information:** (Please list colleges/majors that accept this course in transfer.)

**Approvals:**

Body	Representative Signatures	Date

Curriculum Committee		
Faculty Association		
AASC		
Chief Academic Officer		

Distribution: Original – Administrative Office, Library, Learning Center, Records, Student Services, Curriculum Committee Chair

MESABI RANGE COMMUNITY & TECHNICAL COLLEGE –  
VIRGINIA/EVELETH

Course Outline

<b>Course Title:</b>	<b>Human Geography</b>	<b>Submitted By:</b>	<b>Aaron Kelson</b>
<b>Semester Course Prefix and Number:</b>	<b>GEOG 1556</b>	<b>Approval Date:</b>	<b>December 2003</b>
<b>Old Quarter Course Prefix and Number:</b>	<b>GEOG 111</b>	<b>Revision Date:</b>	<b>April 2010</b>
<b>Number of Credits:</b>	<b>3</b>	<b>Number of Lecture Credits:</b>	<b>3</b>
<b>Semester(s) Offered:</b>		<b>Number of Lab Credits:</b>	<b>Number of Lab Hours:</b>
<b>Negotiated Class Size:</b>		<b>Number of Studio/Demonstration/Internship Credits:</b>	

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**Course Purpose Code:**

- 0 – Developmental Courses
- 1 – Non-transferable, General Education
- 2 – Technical course related to career programs
- 3 – College course which has the primary goal of applying certain concepts (e.g. vocal ensemble)
- 4 – Other college course not considered a part of general education (MNTC) e.g. computer science, health, physical education
- 5 – Course which is intended to fulfill the Minnesota Transfer Curriculum (MNTC) requirements.
- 9 – Continuing Education/Customized Training specialized credit course (not occurring in 0-5)

**Catalog Description:**

This course is a systematic study of global spatial patterns concerning the cultural elements of geography including, cultural diversity, economic activities, transportation, and rural and urban settlement patterns.

**Prerequisites and/or recommended entry skills/knowledge:**

Course Prerequisite(s): None  
Reading Prerequisite: CPT score in reading of 78 or higher  
Composition Prerequisite: None  
Mathematics Prerequisite: None

**Career Programs and Transfer Majors Accessing this Course:**

Various Social Science programs  
Elementary Education

**Minnesota Transfer Curriculum Goal(s) partially met by this course if applicable:** Notes: No more than two goals may be met by any one course. (Curriculum Committee review and the Chief Academic Officer's approval are required).

0. None

6. \_\_\_\_\_ The Humanities and Fine Arts

- |  |  |  |                                  |
|--|--|--|----------------------------------|
| 1. <input type="checkbox"/>            | Communications                                 | 7. <input type="checkbox"/>            | Human Diversity                  |
| 2. <input type="checkbox"/>            | Critical Thinking                              | 8. <input checked="" type="checkbox"/> | Global Perspectives              |
| 3. <input type="checkbox"/>            | Natural Sciences                               | 9. <input type="checkbox"/>            | Ethical and Civic Responsibility |
| 4. <input type="checkbox"/>            | Mathematical/Logical Reasoning                 | 10. <input type="checkbox"/>           | People and the Environment       |
| 5. <input checked="" type="checkbox"/> | History and the Social and Behavioral Sciences |  |                                  |

**Learning outcomes, including any relevant competencies listed in the Minnesota Transfer Curriculum:**

The students will:

- Employ the methods and data that historians and social and behavioral scientists use to investigate the human condition by accessing U.S. Census data for Minnesota counties to produce a number of maps detailing demographic and economic conditions across the state.
- Examine social institutions and processes across a range of historical periods and cultures by learning how universal and ethnic religions diffuse from places of origin to other nations and cultures.
- Develop and communicate alternative explanations or solutions for contemporary social issues by studying the relationship between agricultural production and the nations and cultures in which they exist.
- Demonstrate knowledge of cultural, social, religious and linguistic differences by learning about and being tested on language adoption, cultural artifacts, and ethnic clustering.
- Understand the role of a world citizen and the responsibility world citizens share for their common global future by studying the processes and implications of technological and economic diffusion from more to less developed nations.

**Student assessment methods:**

- 40% of Grade – Four subject-specific tests with a variety of question types
- 10% of Grade – Location exams, both western and eastern hemisphere political features
- 20% of Grade – Comprehensive final exam
- 30% of Grade – Human geography of Minnesota portfolio, maps of Minnesota demographic and economic conditions.

**Use of instructional technology** (includes software, interactive video and other instructional technologies): PowerPoint presentations, videos when appropriate, Internet access for Census data

**Outline of the major course content:**

Cultural Diversity

Race and Ethnic Group  
 Languages of the world  
 Religions of the world  
 Ideologies and the political order  
 Cultural realms of the world

Types of Economic Activities

Biocultural activities  
 Manufacturing-world regions and selected industries  
 Trade and transportation  
 Economic development and the LDC's

Settlement Patterns

Rural communities  
 Towns and cities  
 Urban development and structure  
 Comparison of U.S. cities with other world cities

**Additional special information** (special fees, directives on hazardous materials, etc.)

**Transfer Information:** (Please list colleges/majors that accept this course in transfer.) Accepted at all 4-year colleges as a lower division general education course. Geography, Geographic Information Systems, Natural Resources, Sociology, Economics

**Approvals:**

Body	Representative Signatures	Date
Curriculum Committee		
Faculty Association		

Academic Affairs & Standards Committee		
Chief Academic Officer		

Distribution: Original – Administrative Office, Library, Learning Center, Records, Student Services, Curriculum Committee Chair



- |  |  |   |                                  |
|--|--|---|----------------------------------|
| 1. <input type="checkbox"/>            | Communications                                 | 7. <input type="checkbox"/>             | Human Diversity                  |
| 2. <input type="checkbox"/>            | Critical Thinking                              | 8. <input type="checkbox"/>             | Global Perspectives              |
| 3. <input type="checkbox"/>            | Natural Sciences                               | 9. <input type="checkbox"/>             | Ethical and Civic Responsibility |
| 4. <input type="checkbox"/>            | Mathematical/Logical Reasoning                 | 10. <input checked="" type="checkbox"/> | People and the Environment       |
| 5. <input checked="" type="checkbox"/> | History and the Social and Behavioral Sciences |   |                                  |

**Learning outcomes, including any relevant competencies listed in the Minnesota Transfer**

**Curriculum:**

Students will be able to examine social institutions and processes across a range of historical periods and cultures by comparing how attitudes toward land use, natural resources, and population have evolved in the United States from the late 1700's to the present.

Students will be able to use and critique alternative explanatory systems or theories by becoming familiar with a wide range of causal factors contributing to resource degradation, including human population growth, civil strife, global climate change, poor distribution systems, economic dependence, urbanization, social reorganization, inadequate understanding of natural systems, and political interference.

Students will develop and communicate alternative explanations or solutions for contemporary social issues by writing an in-depth analysis paper about a contemporary natural resources issue driven primarily by human intervention.

Students will discern patterns and interrelationships of bio-physical and socio-cultural systems by learning how economies influence land use patterns and management techniques, including the evolution of industrial agriculture.

Students will critically evaluate environmental and natural resources in light of understandings about interrelationships, ecosystems, and institutions by learning about the dynamic, often cyclical, nature of external and internal influences.

Students will articulate and defend the actions they would take on various environmental issues by writing an in-depth analysis paper.

**Student assessment methods:**

Four subject-specific tests and a comprehensive final are administered.

Twelve in-class assignments are given. The assignments are designed to involve students in the subject matter both individually and as a group.

An in-depth issue paper is required.

**Use of instructional technology** (includes software, interactive video and other instructional technologies):

PowerPoint presentations are utilized. PowerPoint presentations and accompanying notes are put on the Internet and made available through the D2L program. Videos are used when appropriate.

**Outline of the major course content:**

- I. Introduction to the History of Conservation
- II. Organization and Operation of Ecosystems
- III. Human Population Issues
- IV. Soil and Agriculture
- V. Water Resources
- VI. Rangeland and Forest Management
- VII. Wildlife
- VIII. Energy Resources

**Additional special information** (special fees, directives on hazardous materials, etc.)

**Transfer Information:** (Please list colleges/majors that accept this course in transfer.)

**Approvals:**

Body	Representative Signatures	Date
Curriculum Committee		

Faculty Association		
Meet and Confer		
Chief Academic Officer		

Distribution: Original – Administrative Office, Library, Learning Center, Records, Student Services, Curriculum Committee Chair

MESABI RANGE COMMUNITY & TECHNICAL COLLEGE –  
VIRGINIA/EVELETH

Course Outline

Course Title: World Regional Geography Submitted By: Duane Krenz  
Semester Course Prefix and Number: GEOG 1558 Approval Date:  
Old Quarter Course Prefix and Number: GEOG 113 Revision Date: Feb. 2002  
Number of Credits: 3 Number of Lecture Credits: 3  
Semester(s) Offered: Number of Lab Credits: Number of Lab Hours:  
Negotiated Class Size: Number of Studio/Demonstration/Internship Credits:

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**Course Purpose Code:**

- 0 – Developmental Courses
- 1 – Non-transferable, General Education
- 2 – Technical course related to career programs
- 3 – College course which has the primary goal of applying certain concepts (e.g. vocal ensemble)
- 4 – Other college course not considered a part of general education (MNTC) e.g. computer science, health, physical education
- 5 – Course which is intended to fulfill the Minnesota Transfer Curriculum (MNTC) requirements.
- 9 – Continuing Education/Customized Training specialized credit course (not occurring in 0-5)

**Catalog Description:**

This course offers a geographical study of global regions with emphasis on internal spatial patterns and interrelations between regions.

**Prerequisites and/or recommended entry skills/knowledge:**

Course Prerequisite(s): None  
Reading Prerequisite: Reading Intensive  
Composition Prerequisite: None  
Mathematics Prerequisite: None

**Career Programs and Transfer Majors Accessing this Course:**

Social Science Fields  
Elementary Education

**Minnesota Transfer Curriculum Goal(s) partially met by this course if applicable:** Notes: No more than two goals may be met by any one course. (Curriculum Committee review and the Chief Academic Officer's approval are required).

0. None

6. \_\_\_\_\_ The Humanities and Fine Arts

- |  |  |  |                                  |
|--|--|--|----------------------------------|
| 1. <input type="checkbox"/>            | Communications                                 | 7. <input checked="" type="checkbox"/> | Human Diversity                  |
| 2. <input type="checkbox"/>            | Critical Thinking                              | 8. <input type="checkbox"/>            | Global Perspectives              |
| 3. <input type="checkbox"/>            | Natural Sciences                               | 9. <input type="checkbox"/>            | Ethical and Civic Responsibility |
| 4. <input type="checkbox"/>            | Mathematical/Logical Reasoning                 | 10. <input type="checkbox"/>           | People and the Environment       |
| 5. <input checked="" type="checkbox"/> | History and the Social and Behavioral Sciences |  |                                  |

**Learning outcomes, including any relevant competencies listed in the Minnesota Transfer Curriculum:**

Describing and analyzing political, economic, and cultural elements which influence relations of states and societies in their historical and contemporary dimensions.

Demonstrating knowledge of and sensitivity to cultural, social, religious and linguistic differences.

**Student assessment methods:**

Three exams plus final, objective and subjective type questions (4/5 grade)  
 Ten to twelve page research paper, regional global context (1/5 grade).

**Use of instructional technology** (includes software, interactive video and other instructional technologies):

**Outline of the major course content:**

1. Introductory concepts, regional types, basis of regional determination, etc.
2. Europe.
3. Eastern Block and old Soviet Union.
4. Middle East / North Africa.
5. Orient.
6. Africa: South of Sahara.
7. Pacific World.
8. Latin America.
9. Anglo America.

**Additional special information** (special fees, directives on hazardous materials, etc.)

**Transfer Information:** (Please list colleges/majors that accept this course in transfer.)

**Approvals:**

Body	Representative Signatures	Date
Curriculum Committee		

Faculty Association		
Meet and Confer		
Chief Academic Officer		

Distribution: Original – Administrative Office, Library, Learning Center, Records, Student Services, Curriculum Committee Chair

MESABI RANGE COMMUNITY & TECHNICAL COLLEGE –  
VIRGINIA/EVELETH

Course Outline

<b>Course Title:</b>	<b>Fundamentals of Geographic Information Systems</b>	<b>Submitted By:</b>	<b>Aaron Kelson/ Julie Klejeski</b>
<b>Semester Course Prefix and Number:</b>	<b>GEOG 2455</b>	<b>Approval Date:</b>	<b>December 2005</b>
<b>Old Quarter Course Prefix and Number:</b>		<b>Revision Date:</b>	
<b>Number of Credits:</b>	<b>3</b>	<b>Number of Lecture Credits:</b>	<b>3</b>
<b>Semester(s) Offered:</b>		<b>Number of Lab Credits:</b>	<b>Number of Lab Hours:</b>
<b>Class Size:</b>	<b>30</b>	<b>Number of Studio/Demonstration/Internship Credits:</b>	
<b>Negotiated by AASC on</b>			
<b>(Date)___</b>			

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**Course Purpose Code:**

- 0 – Developmental Courses
- 1 – Non-transferable, General Education
- 2 – Technical course related to career programs
- 3 – College course which has the primary goal of applying certain concepts (e.g. vocal ensemble)
- 4 – Other college course not considered a part of general education (MNTC) e.g. computer science, health, physical education
- 5 – Course which is intended to fulfill the Minnesota Transfer Curriculum (MNTC) requirements.
- 9 – Continuing Education/Customized Training specialized credit course (not occurring in 0-5)

**Catalog Description:**

This course provides a broad introduction to cartography and Geographic Information Systems with emphases on both theory and practice. In addition, it explores fundamental principles of numerical data entry, digitizing, data manipulation and analysis, and interpretation of spatially referenced data. The course includes cartographic basics such as mapping, coordinate systems, projections and remote sensing. Students are introduced to the skills necessary to run a vector-based GIS.

**Prerequisites and/or recommended entry skills/knowledge:**

Course Prerequisite(s): Introduction to Computers and one of Physical Geography, Human Geography, Conservation of Natural Resources, or Environmental Science

Reading Prerequisite:

Composition Prerequisite:

Mathematics Prerequisite: High school algebra or CPT placement in higher algebra or above.

**Career Programs and Transfer Majors Accessing this Course:**

Geography  
Environmental Studies

**Minnesota Transfer Curriculum Goal(s) partially met by this course if applicable:** Notes: No more than two goals may be met by any one course. (Curriculum Committee review and the Chief Academic Officer's approval are required).

- |   |  |
|---|--|
| 0. <input checked="" type="checkbox"/> None   | 6. <input type="checkbox"/> The Humanities and Fine Arts     |
| 1. <input type="checkbox"/> Communications    | 7. <input type="checkbox"/> Human Diversity                  |
| 2. <input type="checkbox"/> Critical Thinking | 8. <input type="checkbox"/> Global Perspectives              |
| 3. <input type="checkbox"/> Natural Sciences  | 9. <input type="checkbox"/> Ethical and Civic Responsibility |

4. \_\_\_\_\_ Mathematical/Logical Reasoning  
 5. \_\_\_\_\_ History and the Social and Behavioral Sciences

10. \_\_\_\_\_ People and the Environment

**Learning outcomes, including any relevant competencies listed in the Minnesota Transfer Curriculum:**

Students will be able to illustrate historical and contemporary applications of mathematical/logical systems by using spatial data to design thematic maps covering a wide range of applications.

Students will be able to clearly express mathematical/logical ideas in writing by interpreting thematic maps created using geographic information systems for decision-making purposes.

Students will be able to discern patterns and interrelationships of bio-physical and socio-cultural systems through visually representing those patterns using powerful computer-aided technology.

Students will be able to critically examine environmental and natural resource issues in light of understanding about interrelationships, ecosystems, and institutions by using spatial representations as tools in making predictions about future conditions.

Students will be able to propose and assess alternative solutions to environmental problems by studying the impact of human intervention on natural systems, such as septic system runoff, yard maintenance runoff, forest practices, highway construction, and more.

**Student assessment methods:**

This course is heavily focused on the completion of geographic information projects. Students will complete 3 to 5 significant mapping projects using available spatial data. Each project will focus on a particular ecosystem management issue.

Students will be tested on knowledge of geographic information system terminology and techniques.

Students will present the results of a completed project to the class and/or interested community members.

**Use of instructional technology** (includes software, interactive video and other instructional technologies):

ArcView GIS software, PowerPoint, Internet resources.

**Outline of the major course content:**

- I. Introduction to desktop GIS
- II. ArcView GIS Basics
- III. Working with Spatial Data
- IV. Querying Data
- V. Managing Tabular Data
- VI. Presenting Information
- VII. Creating New Data
- VIII. Future GIS Applications

**Additional special information** (special fees, directives on hazardous materials, etc.)

**Transfer Information:** (Please list colleges/majors that accept this course in transfer.)  
 St. Cloud State, Bemidji State

**Approvals:**

Body	Representative Signatures	Date
Curriculum Committee		
Faculty Association		
Academic Affairs Standards Committee		
Chief Academic Officer		

Distribution: Original – Administrative Office

Copies: Curriculum Committee Chair, Learning Center, Library, Originating Faculty Member, Records, Student Services, Scheduler,  
Transfer Specialist

Revised February 10, 2004