

MICHIGAN STATE
UNIVERSITY

October 12, 2009

MEMORANDUM

TO: Dr. Douglas Estry, Associate Provost for Undergraduate Education
and Dean of Undergraduate Studies

FROM: Dr. Linda O. Stanford, Associate Provost for Academic Services

RE: Request to Add a Grade-Point Average Requirement in the
Minor in Economics

For Transmittal to the University Committee on Academic Policy (UCAP)

The request referenced above is being sent to you for action by the University Committee on Academic Policy (UCAP).

UCAP Response Requested:

Please ask the UCAP to consider the request referenced above at its meeting on October 22, 2009. The Department of Economics is requesting a grade-point average of 2.0 in all attempted economics course work, which includes computation of grades earned in economics courses that are not used to fulfill the requirements of the minor. Please mail the related materials referenced under the heading Attachments at the end of this memorandum to the members of the UCAP.

The academic program and course requests referenced above will be included on the agenda for the October 22 meeting of Subcommittee B, University Committee on Curriculum (UCC). Requests that are approved by Subcommittee B on October 22 will be before the Full Committee, UCC, for action on October 29, 2009. Requests that are approved by the Full Committee on October 29 will be included in the November 17, 2009, Report of the UCC to the Academic Council.

If you have any questions about this memorandum or the attached materials, please call me at 5-8420.

Thank you for your help.

Attachments:

1. Request for a New Minor in Economics and attachments.



**UNIVERSITY
CURRICULUM
and CATALOG**

Michigan State University
176 Administration Building
East Lansing, Michigan
48824-1046

PH: 517/355-8420
FAX: 517/353-1935

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COLLEGE OF SOCIAL SCIENCE

1. Request to establish a **Minor in Economics** in the Department of Economics. The University Committee on Academic Policy (UCAP) will consider this request at its October 22, 2009 meeting.

- a. **Background Information:**

The department has had many requests to establish a minor in economics. Many of these requests come from business majors, but there is also a demand for other majors, such as history, mathematics and philosophy. We believe there is also a demand from the more "vocational" majors for the minor. Many other institutions offer a minor in economics.

- b. **Academic Programs Catalog Text:**

The Minor in Economics, which is administered by the Department of Economics, provides a basic foundation for the breadth of study within the field of economics and a grounding in general economic theory.

The minor is available as an elective to students who are enrolled in bachelor's degree programs at Michigan State University other than the Bachelor of Arts or Bachelor of Science Degree in Economics. With the approval of the department and college that administers the student's degree program, the courses that are used to satisfy the minor may also be used to satisfy the requirements for the bachelor's degree. At least 12 unique credits counted towards the requirements for a student's minor must not be used to fulfill the requirements for that student's major.

Students who plan to complete the requirements for the minor should consult an undergraduate advisor in the Department of Economics.

Requirements for the Minor in Economics

CREDITS

Complete 18 credits of economics course work with a minimum economics grade-point average of 2.00. Students may elect to complete more economics courses than those needed to complete the requirements for the minor, with the understanding that the grades earned in such courses will be included in the computation of the grade-point average for courses in the minor.

1. All of the following courses (9 credits):

EC	201	Introduction to Microeconomics	3
EC	202	Introduction to Macroeconomics	3
EC	301	Intermediate Microeconomics	3

Economics 251H may be substituted for Economics 201 and 301. Students who elect this substitution may satisfy the requirement referenced in item 3. by completing at least 8 additional credits in Economics course work at the 300-400 level.

Economics 252H may be substituted for Economics 202.

Economics 251H and 252H may be substituted for the following group of courses: Economics 201, 202, 301, and 302. Economics 302 is not required for the minor. Students who elect this substitution may satisfy the requirement referenced in item 3. by completing at least 8 additional credits in Economics course work at the 300-400 level.

2. Complete 3 additional credits in Economics at the 400-level.
3. Complete 6 additional credits in Economics at the 300-400 level.

Effective Spring 2010.

View a Program		Main Menu
Joy Speas, RO	Tuesday, 6/9/2009	
Program Name: Economics Degree: MNUN Sequence Number: 1	Program Request ID: 1452	
Effective Dates: Spring 2010 - Open Status: Interim Initial Action: New		
Requested Date: 4/10/2009 3:35:49 PM		
<p>1. Department/School/College: 38238 Department of Economics</p> <p>2. Name of Program: Economics</p> <p>3. Name of Degree: MNUN</p> <p>4. Type of Program: Other</p> <p>5. Effective Start Semester: Spring 2010</p> <p>6. Target student audience for the program: Undergrads not majoring in Economics</p> <p>7. Enrollment: What is the expected enrollment per year: 200 What is the minimum enrollment acceptable: 1</p> <p>8. Source of budget for the program: Internal</p> <p>9. Projected Costs as compared to other programs in unit: Same</p> <p>10. Staff requirement: How many additional staff will be required: 0 Who will provide the primary instruction. Describe any external linkages(industry, government, etc.):</p> <p>11. Will additional equipment be required: Approximate cost: 0 Source of funding:</p> <p>12. Will additional library materials be required: Approximate cost: 0</p>		

Source of funding: Current library holdings will be utilized.

13. Will additional space be required:

Type:

Approximate amount:

14. If the program requirements contain a named concentration, do you wish for the concentration to be noted on the student's transcript?:

No

15. Detailed Description:

The Minor in Economics, which is administered by the Department of Economics, provides a basic foundation for the breadth of study within the field of economics, and a grounding in general economic theory.

This minor is available as an elective to students who are enrolled in bachelor's degree programs at Michigan State University other than the Bachelor of Arts or Bachelor of Science Degree in Economics. With the approval of the department and college that administer the student's degree program, the courses that are used to satisfy the minor may also be used to satisfy the requirements for the bachelor's degree. At least 12 unique credits counted towards the requirements for a student's minor must not be used to fulfill the requirements for that student's major.

Students who plan to complete the requirements of the minor should consult the undergraduate adviser in the Department of Economics.

Requirements for the Minor in Economics

Completion of a minimum of 18 Economics credits with a minimum Economics GPA of 2.0. Students may elect to complete more Economic courses than those needed to complete the requirements for the minor, with the understanding that the grades earned in such courses will be included in the computation of the grade-point average for courses in the minor.

a. All of the following courses in the Department of Economics (9 credits)

EC 201 Introduction to Microeconomics	3 cr.
EC 202 Introduction to Macroeconomics	3 cr.
EC 301 Intermediate Microeconomics	3 cr.

Economics 251H may be substituted for Economics 201 and 301. Students who elect this substitution may satisfy the requirement referenced in item c. by completing at least 2 credits in Economics coursework at the 300-400 level, in addition to the six credits referenced in item c.

Economics 252H may be substituted for Economics 202.

Economics 251H and 252H may be substituted for the following group of courses: Economics 201, 202, 301, and 302 (302 is not required for the minor). Students who elect this substitution may satisfy the requirement referenced in item c. by completing at least 2 credits in Economics courses at the 300-400 level, in addition to the six credits referenced in item c.

b. Three additional credits in Economics at the 400-level

c. Six additional credits in Economics at the 300-400 level

DEPARTMENT LEVEL APPROVAL STATUS

Approved: Department of Economics
5/15/2009 11:34:30 AM by Jeanne Kalin for Carl Davidson, Chairperson

COLLEGE LEVEL APPROVAL STATUS

Approved: College of Social Science
5/15/2009 11:34:40 AM by Jeanne Kalin for Thomas Summerhill, Acting Associate Dean

15. Detailed description:

a. Background information including the considerations which precipitated the development of the program, and its relationship to similar programs offered at MSU and by other educational institutions. Supply a copy of standards of accrediting agencies and federal regulations related to the request as appropriate.

The department has had many requests to establish a minor in economics. Many of these requests come from Business Majors, but there is also a demand for other majors, such as History, Mathematics and Philosophy. We believe there is also a demand from the more "vocational" majors for the minor. A great many other institutions offers the minor in economics.

b. Rationale for offering the program at MSU.

Student demand.

c. Rationale for the program being housed in the primary administrative unit.

The Department of Economics is the chief locus of expertise in the discipline.

d. Educational objectives of the program and their relationship to those of the college and the University.

The Minor in Economics, seeks to provide a basic foundation for the breadth of study within the field of economics, and a grounding in general economic theory.

e. Faculty who were instrumental in developing the program and faculty who will be responsible for implementing the program (see item 10).

The Undergraduate Instruction Committee (Larry Martin, chair)

f. Plan for evaluating the program. Plan for assessing student outcomes. For academic major programs, indicate the learning objectives/goals for students and how outcomes will be assessed . Visit <http://www.reg.msu.edu/Read/UCC/assessfrm.doc> to complete the outcomes assessment form and include with the program submission.

Attached

g. Program description including statement and specific requirements of the program as **they will appear in the University catalog.** Information contained in the catalog represents a University contract with students. **Any deviation from college and University policies must be specifically requested.** For a master's degree program, indicate whether Plan A (thesis) or B (non-thesis) or both will be available.

Attached

h. If the program will be offered in a location other than the main campus in East Lansing, specify the location (s).

NA

i. List the name and describe any certificate program that is associated with a new or extant degree program.

– Explain the relationship between the certificate program and a new or extant degree program.

– If a certificate program is being proposed that is related to a degree program, please explain how the department/school/college will learn that the supervising faculty have endorsed the potential certificate holders as possessing specified skills or competency levels that render them eligible to receive the certificate and the degree.

NA

j. Other information that will assist the Provost and the University-level committees in evaluating the request.

The Minor in Economics, which is administered by the Department of Economics, provides a basic foundation for the breadth of study within the field of economics, and a grounding in general economic theory.

This minor is available as an elective to students who are enrolled in bachelor's degree programs at Michigan State University other than the Bachelor of Arts or Bachelor of Science Degree in Economics. With the approval of the department and college that administer the student's degree program, the courses that are used to satisfy the minor may also be used to satisfy the requirements for the bachelor's degree. At least 12 unique credits counted towards the requirements for a student's minor must not be used to fulfill the requirements for that student's major.

Students who plan to complete the requirements of the minor should consult the undergraduate adviser in the Department of Economics.

Requirements for the Minor in Economics

Completion of a minimum of 18 economics credits with a minimum economics GPA of 2.0. Students may elect to complete more economic courses than those needed to complete the requirements for the minor, with the understanding that the grades earned in such courses will be included in the computation of the grade-point average for courses in the minor.

- a. All of the following courses in the Department of Economics (9 credits)

EC 201 Introduction to Microeconomics	3 cr.
EC 202 Introduction to Macroeconomics	3 cr.
EC 301 Intermediate Microeconomics	3 cr.

Economics 251H may be substituted for Economics 201 and 301. Students who elect this substitution may satisfy the requirement referenced in item c. by completing at least 2 to 3 credits in Economics coursework at the 300-400 level, in addition to the six credits referenced in item c.

Economics 252H may be substituted for Economics 202.

Economics 251H and 252H may be substituted for the following group of courses: Economics 201, 202, 301, and 302 (302 is not required for the minor). Students who elect this substitution may satisfy the requirement referenced in item c. by completing at least 2 to 3 credits in Economics courses at the 300-400 level, in addition to the six credits referenced in item c.

- b. Three additional credits in economics at the 400-level
- c. Six additional credits in economics at the 300-400 level

Michigan State University

Assessing Student Outcomes

College: Social Science
Department: Economics
Program or Major: Economics
Program Level: Minor in Economics
Contact Person: Lawrence Martin

Inventory of Written Statements and Plans

1. Do you have a written mission statement or statement of purpose? yes no
If yes, please attach a copy or reference where this can be found:

<https://www.msu.edu/user/ec/>

2. Do you have a written statement of intended educational outcomes describing what a student should know or be able to do when they have completed this program? yes no
3. Do you have a written method of assessment for measuring student outcomes? yes no
4. Does your program have a separate accreditation process? yes no
If yes, please list all accrediting agencies below:

Assessment Methodologies

It is likely that some assessment measures are already in place in this program even if they are not identified as being part of a formal assessment plan. Listed below are some of the assessment methodologies you may be using. Indicate "A" if the method is currently being used; "B" if it is

not being used but you are interested in using it; and "C" if the method of assessment does not apply to your program.

Direct Methods of Assessment

1. c Comprehensive Examinations
2. c Writing proficiency Examinations
3. c National Examinations assessing subject matter knowledge
4. c Graduate Record Exam General Test
5. c Graduate Record Exam Subject Test
6. c Certification Examinations
7. c Licensure Examinations
8. c Locally developed pre-test or post-test for subject matter knowledge
9. c Senior thesis or major project
10. c Portfolio evaluation of student work
11. c Capstone courses
12. c Audio or Video tape evaluations

c

Indirect Methods of Assessment

1. b Comparison or benchmarking with peer institutions
2. b Job placement of graduates
3. c Employer surveys
4. c Advisory groups from your profession
5. b Graduate school acceptance rates
6. b Student graduation/retention rates
7. a Exit interviews with students graduating or leaving the program
8. a Student satisfaction surveys
9. a Student course evaluations
10. b Focus group discussions
11. b Alumni surveys
12. b Alumni honors, awards, achievements
13. a Analysis of grade distributions
14. c Peer review of courses
15. c Peer review of program
16. c Curriculum/syllabus analysis
17. c Community service/volunteerism participation
18. c Other:

Does your program have an experiential learning component?

yes c no

If yes, how do you assess the student learning outcomes from that experience?

1. Participate in a class designed to complement the experience
2. Student journals
3. Formal evaluation procedures from field-based supervisor
4. Formal meetings between supervisor, student, and faculty

5. Formal test of practical skills
6. Other:

Implementation Plans

1. How has your department used any of the indicators above to improve services and programs for students?
- 2.

We use our exit survey, teaching evaluations and research projects to improve our capstone course for majors (Ec 499)

2. When you think about developing and implementing an assessment plan, what concerns do you have?

How to get useful information about the value of the program.

**Return this form to: Kelly Funk
221 Administration Building**

Assessing Student Outcomes modified and used with permission, Dr. Sharron L. Ronco, Florida Atlantic University

Intended Educational Outcomes for the Minor in Economics

The Minor in Economics is designed to acquaint a wide variety of non-majors with the economic way of thinking about issues. The intended "market" includes students with complementary interests, such as History majors studying issues related to economics (imperialism, inequality, business development, industrial revolution, environmental degradation, etc) or business majors seeking some broader perspective on their own disciplines. Another important target is the student taking a more "vocational" major, such as Social Work, Health Communication, Landscape Architecture and the like. Each of these majors does a fine job preparing the student for a career in the field. A minor in Economics supplements the specific knowledge (human capital) with a more general set of modes of thinking. Typically, the student would take electives in fields relevant to her major. For example, the major in Social Work could take courses in Public Economics (Ec 335) and Poverty and Income Distribution (Ec 495). These fit in nicely with the major, offering an analysis of poverty and the role of government from the societal perspective and helping the social worker see how her efforts contribute to the amelioration of social ills. For the Health Communication major, there is a course in Economics of Health Care (Ec 498). The hope is that the Minor enables all of the students to understand and use the basic economic models to think about problems in their own field, and also to be able to locate and interpret relevant economic concepts and data.

To assess our performance in the Minor in Economics, we use

1. Peer assessment. The Undergraduate Instruction Committee will review the curriculum annually to ensure that it is current with the evolution of the discipline and that it meets student needs.
2. Student assessment. We will review teaching evaluations (SIRS forms) to verify the department's teaching effectiveness and identify areas for potential improvement. We will also review the results of our exit survey of majors concerning their opinions of the overall quality and effectiveness of the teaching that they experienced.
3. Student demand. We will review enrollment in regular, on-line and blended courses to ensure that we are meeting the needs of students and that we have sufficient resources to offer effective teaching.
4. The Undergraduate Instruction Committee will consider this information annually.

UCAP: PROGRAMMATIC CHANGE QUESTIONS

Student Trend Data

Five-year trend data (student enrollment by fiscal year and student awards during the fiscal year) obtained from the "Special Reports and Tools" section of the RO Forms menu (<http://www.reg.msu.edu> – Faculty/Staff Forms) will be provided by the office of the Associate Provost for Undergraduate Education.

Current Admissions Standards

1. Please provide details of existing admissions requirements for the program (e.g. Grade or Grade Point Average requirements and if so in which course(s), portfolio requirement, audition, essay, etc.). If no current admission requirements exist other than those required by University policy indicate "none". (see <http://www.reg.msu.edu/read/UCC/Updated/undgredadmdegree.pdf>)

We have no admissions requirements

2. If a minimum GPA is required for admission, or if grades in specific courses are required for admission, please describe the rationale for this requirement. Why were the specific courses chosen, why was the specific GPA chosen? What data (please provide the data) are available to evaluate the efficacy of the current requirement?

If the student achieves the minimum grade(s) or G.P.A., will the student be:

- guaranteed admission.
 considered for admission.

If the response is "considered for admission", what other variables are taken into consideration, how are they weighted, who decides, and why? (e.g., enrollment limits, available clinic sites, etc.)

We have no admissions requirements

3. If your program is accredited, do the accreditation standards affect admissions standards? If so, how?

NA

4. How does the department educate prospective students about its requirements and restrictions?

NA

5. How does the unit currently assist non-qualified students in identifying alternative programs?

NA

Impact of Proposed Changes

1. Given that admission standards have the potential to restrict access and limit flexibility, why is this change being proposed, what metrics/data were used to make this decision (please provide the data), and why is it important?

There are no admissions standards to the minor. Access would not be restricted. Of course, student would have to comply with prerequisites..

2. Will this change impact the average time to degree? If so, in what way?

The average time need not increase. This is an "add-on" to a degree program and thus, it is possible that some students may take longer. Taking on the extra work of a minor is a voluntary choice, however.

3. How many (and which) current students will be affected by this change?

We expect significant enrollment in the minor. It is an ideal supplement to more vocational oriented degree programs. For example, the major in social work adds the economics minor. The social work major provides the skills needed for the job of assisting people in need. The economics minor gives context and ways of thinking about the causes of the client's distress and the role of economic forces and policy. One could provide a large number of similar examples.

4. How will the department notify current students of changes and how will they be accommodated?

When the minor is approved, notification will be posted on our website, and an announcement will be sent through the advisor listserv. Our enrollment limits will be adjusted as necessary with available resources.

5. How will this change affect access for transfer students and how will this be accommodated?

No effect.

6. How will the unit educate prospective students and feeder institutions (as appropriate) about the new requirements and assist them with alternatives?

Prospective student will also be able to view the availability of the minor in Economics on our website.

7. Please summarize any time constraints on UCAP action on this issue.

We would like this to be approved and available effective Spring 2010.

Required 2.0 minimum

The proposal calls for 18 credits minimum at a grade of 2.0. The minimum grade is consistent with the requirements for the major. Also, consistent with the major students may elect to complete more economic courses the required for the minor, and such courses will be included in the computation of the grade-point average for course in the minor.

The grade point minimum provides a certification of a minimum level of competence in economics. It also prevents the economics minor from becoming a consolation prize for failed economics majors.

We do feel strongly about the appropriateness of the 2.0 minimum. Nevertheless, should this part of the proposal be rejected, we do want to go forward with the minor program.

DEPARTMENT of ECONOMICS

Carl Davidson, Chairperson

UNDERGRADUATE PROGRAMS

The Department of Economics offers Bachelor of Arts and Bachelor of Science degrees in Economics. These degree programs provide a broad education involving the domestic and international economy and include the study of institutions, concepts, policy, and tools of analysis. Our students prepare for careers in business such as banking, financial markets, insurance, law, management, and consulting; for careers in national, state, and local governments; in teaching; and for graduate study in economics and related fields including business administration, finance, public policy, and law.

A minor in Economics is also available.

The department stresses flexibility in each undergraduate program and requires a strong core of economic theory, supplemented by mathematics, data analysis or statistics, and computer science. Students in each of these degree programs choose area electives within the department as well as in the College of Social Science and the university. All students are encouraged to develop programs of study that are tailored to their individual needs and interests.

Beyond the introductory courses in microeconomics and macroeconomics, the department offers courses in a number of areas of emphasis. These areas of emphasis are listed below, along with their respective course offerings.

Microeconomics

- EC 251H Microeconomics and Public Policy
- EC 301 Intermediate Microeconomics
- EC 401 Advanced Microeconomics

Macroeconomics and Monetary Theory

- EC 252H Macroeconomics and Public Policy
- EC 302 Intermediate Macroeconomics
- EC 330 Money, Banking, and Financial Markets
- EC 402 Advanced Macroeconomics

Economic Systems

- EC 306 Comparative Economic Systems
- EC 406 Economic Analysis of Russia and the Commonwealth of Independent States

Development

- EC 310 Economics of Developing Countries
- EC 410 Issues in the Economics of Developing Countries
- EC 412 Economic Analysis of Latin America
- EC 413 Economic Analysis of Asia
- EC 414 Economic Analysis of Sub-Saharan Africa

Econometrics

- EC 420 Introduction to Econometric Methods
- EC 421 Advanced Econometric Methods

Public Economics

- EC 335 Taxes, Government Spending and Public Policy
- EC 435 Public Expenditures
- EC 436 Public Revenues

International Economics

- EC 340 Survey of International Economics
- EC 440 International Trade
- EC 441 International Finance

Industrial Organization

- EC 360 Private Enterprise and Public Policy
- EC 460 American Industry: Structure and Behavior

Labor Economics

- EC 380 Labor Relations and Labor Market Policy
- EC 480 Analysis of Labor Markets

Law And Economics

- EC 425 Law and Economics

Health and Welfare

- EC 495 Economics of Poverty and Income Distribution
- EC 498 Economics of Health Care

Capstone Course

- EC 499 Senior Seminar for Economics Majors (W)

ECONOMICS

The Bachelor of Arts Degree in Economics emphasizes the use of quantitative techniques in the analysis of economic theories.

Requirements for the Bachelor of Arts Degree in Economics

1. The graduation requirements of the University as described in the *Undergraduate Education* section of this catalog; 120 credits, including general elective credits, are required for the Bachelor of Arts degree in Economics.

The University's Mathematics requirement for the Bachelor of Arts degree in Economics is met by completing Mathematics 124, 132, or 152H.

The University's Tier II writing requirement for the Economics major is met by completing Economics 499. That course is referenced in item 3. a. below.

2. The requirements of the College of Social Science for the Bachelor of Arts degree. Students pursuing the Bachelor of Arts Degree in Economics are required to complete a minimum of 6 credits from the following courses for the College of Social Science NATURAL SCIENCE REQUIREMENT.

One of the following courses (3 credits):		
CSE	101	Computing Concepts and Competencies 3
CSE	131	Technical Computing and Problem Solving 3
One of the following courses (3 credits):		
STT	315	Introduction to Probability and Statistics for Business . . . 3
STT	421	Statistics I 3
STT	430	Introduction to Probability and Statistics 3

CREDITS
30

3. The following requirements for the major:
 Students may elect to complete more economics courses than those needed to complete the requirements for the major, with the understanding that the grades earned in such courses will be included in the computation of the grade-point average for courses in the major to meet College of Social Science graduation requirements. In order to be eligible to enroll in Economics 499, as referenced in item 3. a. below, students must have a grade-point average of 2.0 in all attempted Economics courses.

a. All of the following courses in the Department of Economics (18 credits):

EC	201	Introduction to Microeconomics 3
EC	202	Introduction to Macroeconomics 3
EC	301	Intermediate Microeconomics 3
EC	302	Intermediate Macroeconomics 3
EC	420	Introduction to Econometric Methods 3
EC	499	Senior Seminar for Economics Majors (W) 3

Economics 251H may be substituted for Economics 201 and 301. Students who elect this substitution, and who do not take Economics 252H, may satisfy the requirement referenced in item 3. c. by completing at least 2 to 3 credits in Economics courses at the 300-400 level, in addition to the 9 credits referenced in item 3. c.

Economics 252H may be substituted for Economics 202 and 302. Students who elect this substitution, and who do not take Economics 251H, may satisfy the requirement referenced in item 3. c. by completing at least 3 credits in Economics courses at the 300-400 level, in addition to the 9 credits referenced in item 3. c.

Economics 251H and 252H may be substituted for the following group of courses: Economics 201, 202, 301, and 302. Students who elect this substitution may satisfy the requirement referenced in item 3. c. by completing at least 5 to 6 credits in two Economics courses at the 300-400 level, in addition to the 9 credits referenced in item 3. c.

- b. One of the following courses in the international area (3 credits): Economics 306, 310, 340, 406, 410, 412, 413, 414, 440, and 441.
- c. Nine additional credits in economics courses, of which at least 6 credits must be at the 400-level.

In addition to the requirements for the major, students may elect to complete a cognate in business. The requirements for the cognate are met by completing four of the following courses (12 credits):

ACC	230	Survey of Accounting Concepts 3
FI	320	Introduction to Finance 3
GBL	323	Introduction to Business Law 3
MGT	325	Management Skills and Processes 3
MSC	327	Introduction to Marketing 3

Students may substitute Accounting 201 and 202 for Accounting 230.

Bachelor of Science

The Bachelor of Science Degree in Economics emphasizes the use of advanced math and science in the analysis of economic theories. The program offers students more emphasis on mathematics, statistics, and computer science, as preparation for those who wish to pursue graduate training in economics.

**Requirements for the Bachelor of Science Degree
 in Economics**

1. The graduation requirements of the University as described in the *Undergraduate Education* section of this catalog; 120 credits, including general elective credits, are required for the Bachelor of Science degree in Economics.

The University's Mathematics requirement for the Bachelor of Science degree in Economics is met by completing Mathematics 132, or 152H.

The University's Tier II writing requirement for the Economics major is met by completing Economics 499, referenced in item 3. a. below.

2. The requirements of the College of Social Science for the Bachelor of Science degree.

Students pursuing the Bachelor of Science Degree in Economics are required to complete a minimum of 15 credits from the following courses for the College of Social Science NATURAL SCIENCE REQUIREMENT, including Mathematics 133 or 153H and one of the designated statistics courses.

CSE 231	Introduction to Programming I	4
CSE 232	Introduction to Programming II	4
MTH 133	Calculus II	4
MTH 153H	Honors Calculus II	3
MTH 234	Multivariable Calculus	4
MTH 235	Differential Equations	3
MTH 254H	Honors Multivariable Calculus	3
MTH 255H	Honors Differential Equations	3
MTH 309	Linear Algebra I	3
MTH 310	Abstract Algebra I and Number Theory	3
MTH 314	Matrix Algebra with Applications	3
MTH 320	Analysis I	3
MTH 340	Ordinary Differential Equations I	3
STT 441	Probability and Statistics I: Probability	3
STT 442	Probability and Statistics II: Statistics	3
STT 461	Computations in Probability and Statistics	3
STT 471	Statistics for Quality and Productivity	3

Mathematics 133 or 153H and Mathematics 234 or 254H and Mathematics 235 or 255H may be applied toward the College of Social Science NATURAL SCIENCE REQUIREMENT. Upon prior approval by the department, other courses may be substituted in fulfillment of the College of Social Science NATURAL SCIENCE REQUIREMENT.

CREDITS

3. The following requirements for the major: 30

Students may elect to complete more economics courses than those needed to complete the requirements for the major, with the understanding that the grades earned in such courses will be included in the computation of the grade-point average for courses in the major to meet College of Social Science graduation requirements. In order to be eligible to enroll in Economics 499, as referenced in item 3. a. below, students must have a grade-point average of 2.0 in all attempted Economics courses.

a. All of the following courses in the Department of Economics (18 credits):

EC 201	Introduction to Microeconomics	3
EC 202	Introduction to Macroeconomics	3
EC 301	Intermediate Microeconomics	3
EC 302	Intermediate Macroeconomics	3
EC 420	Introduction to Econometric Methods	3
EC 499	Senior Seminar for Economics Majors (W)	3

Economics 251H may be substituted for Economics 201 and 301. Students who elect this substitution, and who do not take Economics 252H, may satisfy the requirement referenced in item 3. c. by completing at least 2 to 3 credits in Economics courses at the 300-400 level, in addition to the 9 credits referenced in item 3. c.

Economics 252H may be substituted for Economics 202 and 302. Students who elect this substitution, and who do not take Economics 251H, may satisfy the requirement referenced in item 3. c. by completing at least 3 credits in Economics courses at the 300-400 level, in addition to the 9 credits referenced in item 3. c.

Economics 251H and 252H may be substituted for the following group of courses: Economics 201, 202, 301, and 302. Students who elect this substitution may satisfy the requirement referenced in item 3. c. by completing at least 5 to 6 credits in two Economics courses at the 300-400 level, in addition to the 9 credits referenced in item 3. c.

b. One of the following courses in the international area (3 credits):

Economics 306, 310, 340, 406, 410, 412, 413, 414, 440, and 441.

c. Nine additional credits in economics courses, of which at least 6 credits must be at the 400-level.

In addition to the requirements for the major, students may elect to complete a cognate in business. The requirements for the cognate are met by completing four of the following courses (12 credits):

ACC 230	Survey of Accounting Concepts	3
FI 320	Introduction to Finance	3
GBL 323	Introduction to Business Law	3
MGT 325	Management Skills and Processes	3
MSC 327	Introduction to Marketing	3

Students may substitute Accounting 201 and 202 for Accounting 230.

Insert ①

TEACHER CERTIFICATION OPTIONS

The economics disciplinary major leading to the Bachelor of Arts or Bachelor of Science degree is available for teacher certification. An economics disciplinary minor is also available for teacher certification. Students who elect the economics disciplinary major or the economics disciplinary minor must contact the Department of Economics.

For additional information, refer to the statement on TEACHER CERTIFICATION in the *Department of Teacher Education* section of this catalog.

GRADUATE STUDY

MINOR IN ECONOMICS

The Minor in Economics, which is administered by the Department of Economics, provides a basic foundation for the breadth of study within the field of economics and a grounding in general economic theory.

The minor is available as an elective to students who are enrolled in bachelor's degree programs at Michigan State University other than the Bachelor of Arts or Bachelor of Science Degree in Economics. With the approval of the department and college that administers the student's degree program, the courses that are used to satisfy the minor may also be used to satisfy the requirements for the bachelor's degree. At least 12 unique credits counted towards the requirements for a student's minor must not be used to fulfill the requirements for that student's major.

Students who plan to complete the requirements for the minor should consult an undergraduate advisor in the Department of Economics.

Requirements for the Minor in Economics**CREDITS**

Complete 18 credits of economics course work with a minimum economics grade-point average of 2.00. Students may elect to complete more economics courses than those needed to complete the requirements for the minor, with the understanding that the grades earned in such courses will be included in the computation of the grade-point average for courses in the minor.

1. All of the following courses (9 credits):

EC	201	Introduction to Microeconomics	3
EC	202	Introduction to Macroeconomics	3
EC	301	Intermediate Microeconomics	3

Economics 251H may be substituted for Economics 201 and 301. Students who elect this substitution may satisfy the requirement referenced in item 3. by completing at least 8 additional credits in Economics course work at the 300-400 level.

Economics 252H may be substituted for Economics 202.

Economics 251H and 252H may be substituted for the following group of courses: Economics 201, 202, 301, and 302. Economics 302 is not required for the minor. Students who elect this substitution may satisfy the requirement referenced in item 3. by completing at least 8 additional credits in Economics course work at the 300-400 level.

2. Complete 3 additional credits in Economics at the 400-level.
3. Complete 6 additional credits in Economics at the 300-400 level.