REQUIREMENTS FOR THE BA ECONOMICS MAJOR WITH **QUANTITATIVE EMPHASIS**
UNIVERSITY OF COLORADO BOULDER

at least 32 hours of Economics courses plus **16-18 hours of mathematics-related ancillary course work** from outside the Economics Department. ECON 1078 and 1088 do not count toward either the minimum economics credit requirement or the Econ major GPA calculation. With presentation of a course syllabus, the Associate Chair for Undergraduate Studies will consider topically relevant courses on a

for further assistance. Transfer students must complete at least 6 hours of this ancillary course work at the University of Colorado Boulder.

I.   REQUIRED ECONOMICS COURSES

A. Lower Division – Econ. Requirements
        ECON 2010 Principles of Microeconomics and ECON 2020 Principles of Macroeconomics (8 hrs.)

Lower Division - Math Requirements++

Choose one   Option 1   ECON 1088 Math Tools for Economists 2 (3 hrs.) *Prerequisite: ECON 1078, Math Tools for Economists 1*
             Option 2   MATH 1330 Calculus for Social Sciences/Business (4 hrs.) *Prerequisite: MATH 1011, College Algebra*
             Option 3   MATH 1300 Analytic Geometry and Calculus 1 (5 hrs.) *Prerequisite: MATH 1150, Pre-calculus Mathematics*
             Option 4   Department-approved equivalents or substitution
    *For students matriculating before Fall 2017, an ALEKS Math Assessment Score of 61% is sufficient to enroll in ECON 1088 and
    MATH 1330. A Score of 76% is sufficient for MATH 1300. For students matriculating*

_____ *Choose two*
    ECON 4808 Intro. to Mathematical Economics (3 hrs.) **and**

    ECON 4818* Intro. to Econometrics (3 hrs.) **or**
    ECON 4848* Applied Econometrics (3hrs.) **or**
    ECON 4858 Financial Econometrics (3hrs.)

    *Note that students who use ECON 4818 to satisfy the Econometrics requirement in Part B (Upper Division Requirements), may
      use ECON 4848 to satisfy the Part C quantitative course requirement. Students who use ECON 4848 to satisfy the Econometrics
      requirement in Part B, may use ECON 4818 to satisfy the Part C quantitative course requirement.

D. Elective Courses in Economics

6 credit hours of 4000-level economics electives (9 hours if transferring six credits of micro and macro Principles courses).

II. REQUIRED MATHEMATICS COURSES

Note: Many of the following courses listed below have prerequisites. Students are responsible for completing prerequisites before enrolling in these courses.

A. Required Calculus Courses

Take all   MATH 1300   Analytic Geometry and Calculus 1 (5 hrs.)
MATH 2300   Analytic Geometry and Calculus 2 (5 hrs.)
MATH 2400   Calculus 3 (4 hrs.) **OR** MATH 2130 Introduction to Linear Algebra (3 hrs)

Note: APPM 1350 and APPM 1360 may substitute for MATH 1300 and 2300, respectively. APPM 2350 and APPM 2360
May substitute for MATH 2400 AND 2130, respectively.

B. Mathematics, Applied Mathematics and Computer Science Courses

At least three credit hours selected from courses listed below:

Course	Title
MATH 2400	Calculus 3 (4 hrs.)
MATH 2130	Intro. to Linear Algebra (3 hrs.)
MATH 3001	Analysis 1 (3 hrs.)
MATH 4001	Analysis 2 (3hrs)
MATH 4120	Introduction to Operations Research (3 hrs.)
MATH 3430	Ordinary Differential Equation (3 hrs.)
MATH 4510	Introduction to Probability Theory (3 hrs.)
MATH 4520	Introduction to Mathematical Statistics (3 hrs.)
MATH 4540	Introduction To Time Series (3 hrs.)
APPM 4570	Statistical Methods (3 hrs.)
APPM 4580	Statistical Methods for Data Analysis (3 hrs.)
CSCI 4502	Data Mining (3 hrs.)
CSCI 2820	Linear Algebra with Computer Science Applications

The following table lists approved substitutes for some courses listed above:

Course	Substitutes
	APPM 2360
	APPM 2360 Algebt CID216 BDC .278131 Tm((3 hrs.))Tj/Span36MC /P ‹Lang (en-US/Lang (en-US)/MCID 210
MATH 2400 Calculus 3 (4 hrs.)	APPM 2350 Calculus 3 for engineers (4 hrs.)
MATH 2130 Intro. to Linear Algebra (3 hrs.)	APPM 2360 _____
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