



**CURRICULUM COMMITTEE
ACADEMIC YEAR 2013-2014**

NEW COURSE PROPOSAL FORM

ACADEMIC AREA:	SCHOOL OF PURE AND APPLIED SCIENCES
PROGRAM:	ASSOCIATE IN ARTS
PROPOSED BY:	PROFESSORS DON RANSFORD AND JOANN LEWIN
PRESENTER:	PROFESSOR DON RANSFORD
SUBMISSION DATE:	2/14/2014
COURSE PREFIX, NUMBER AND TITLE:	MAT 1990 MATHEMATICAL LITERACY FOR COLLEGE STUDENTS

SECTION I

<u>COURSE INFORMATION:</u>	<u>TYPE IN THE APPROPRIATE INFORMATION FOR EACH ITEM:</u>
DIVISION	MATHEMATICS
COURSE PREREQUISITE(S):	MAT 0057, OR MAT0028, OR TESTING, OR SB1720 EXEMPTION
DO YOU ANTICIPATE THAT STUDENTS WILL BE TAKING ANY OF THE PREREQUISITES LISTED FOR THIS COURSE IN DIFFERENT PARTS OF THE SAME TERM?	YES
MINIMUM GRADE OF PREREQUISITE(S):	C
COURSE COREQUISITE(S):	NONE
IS ANY COREQUISITE LISTED ON THIS COURSE LISTED AS A COREQUISITE ON ITS PAIRED COURSE? EXAMPLE: CHM 2032 IS A COREQUISITE FOR CHM 2032L AND CHM 2032L IS A COREQUISITE FOR CHM 2032.	SELECT ANSWER
COURSE CREDITS OR CLOCK HOURS:	3

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CURRICULUM COMMITTEE**

CREDIT TYPE:	COLLEGE CREDIT (TRANSFERABLE)
CONTACT HOURS:	4
COURSE DESCRIPTION:	
<p>This course reinforces elementary algebra and quantitative reasoning skills and introduces basic statistical concepts through data analysis in preparation for college-level statistics and liberal arts mathematics. Topics include, but are not limited to, ratios, proportions, scaling, dimensional analysis, modeling with equations and inequalities, tables, graphs, linear functions, and exponential functions. Written and verbal communication skills will be emphasized along with critical thinking. Students who complete this course will be prepared to enroll in STA 2023, MGF 1106 and/or MGF 1107. However, students who have completed this course are not eligible to enroll in MAC 1105 without meeting other prerequisites. A graphing calculator is required for this course.</p>	
GENERAL TOPIC OUTLINE:	
<ul style="list-style-type: none"> • Number Sense and Estimation Skills • Ratios, Proportions and Scaling • Algebraic Modeling with Equations and Inequalities • Data Exploration with Tables • Basic Elements of Graphing • Basic Elements of Linear and Exponential Functions • Basic Elements of Measures of Central Tendency and Dispersion • Basic Elements of Correlation and Regression 	

LEARNING OUTCOMES (FOR INFORMATION PURPOSES ONLY):

TYPE IN ALL OF THE LEARNING OUTCOMES, ASSESSMENTS AND GEN ED COMPETENCIES AS THEY SHOULD BE DISPLAYED IN THE SYLLABUS

LEARNING OUTCOMES	ASSESSMENTS	GENERAL EDUCATION COMPETENCIES
Recognize and estimate reasonable solutions to a problem utilizing various representations of rational numbers	Students will demonstrate competency via one or more of the following assessment techniques: Homework Labs Projects Group Assignments Portfolios Quizzes Tests Final Examination	
Solve problems requiring the use of ratios, proportions, and scaling		QR
Create and utilize mathematical models to investigate, represent, and solve problems using the language and structure of algebra		QR
Generate and analyze data recorded in tables through the use of technology		TIM, CT
Investigate and summarize patterns exhibited in various graphs using		COM

both prose and mathematical language		
Compare and contrast linear and exponential functions using both prose and mathematical language		COM
Estimate, calculate and interpret the slope of linear functions represented in tables, graphs and equations		QR, CT
Calculate and interpret statistical measures of central tendency and dispersion		QR
Generate and evaluate linear, quadratic and exponential regression models, and interpret the significance of the correlation of the variables through the use of technology		QR, TIM

SECTION II (MUST COMPLETE EACH ITEM BELOW)

ICS CODE FOR THIS COURSE:	ADVANCED AND PROFESSIONAL - 1.16.17 - MATHEMATICS
IF YOU INTEND TO RESTRICT STUDENT REGISTRATION BASED ON THE STUDENTS' MAJOR(S), ENTER ALL APPLICABLE MAJOR RESTRICTION CODE(S)—ENTER "NA" OR MAJOR CODE(S):	CLICK HERE TO ENTER TEXT
GRADE MODE:	STANDARD GRADING
IS THIS AN "INTERNATIONAL OR DIVERSITY FOCUS" COURSE?	NO
IS THIS A GENERAL EDUCATION COURSE?	NO
IS THIS A WRITING INTENSIVE COURSE?	NO
IS THIS AN HONORS COURSE?	NO
IS THIS A REPEATABLE* COURSE? (A repeatable course may be taken more than one time for additional credits. For example, MUT 2641, a 3-credit hour course, can be repeated 1 time and a student can earn a maximum of 6 credits.) *not the same as Multiple Attempts or Grade Forgiveness	NO
IF "YES", WHAT IS THE MAXIMUM NUMBER OF CREDITS A STUDENT CAN EARN FOR THIS COURSE? IF "NO", ENTER "NA".	TYPE NUMBER HERE
DO YOU EXPECT TO OFFER THIS COURSE THREE TIMES OR LESS (EXPERIMENTAL)?	NO
WILL THIS COURSE HAVE AN IMPACT ON OTHER COURSES, PROGRAMS, DEPARTMENTS, OR BUDGETS?	YES

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CURRICULUM COMMITTEE**

IF "YES," PLEASE EXPLAIN OR SUBMIT COMMENTS (ENTER "NA" OR COMMENTS):	THE OFFERING OF THIS COURSE WILL LIKELY REDUCE THE NUMBER OF MAT 1033 SECTIONS BEING OFFERED, BUT THE TOTAL NUMBER OF SECTIONS OF MAT 1033 AND MAT 1990 WILL REMAIN THE SAME. IN THE LONG TERM, OTHER PROGRAMS MAY WISH TO REEXAMINE THEIR REQUIRED MATHEMATICS COURSES BASED ON THIS NEW ALTERNATIVE PATHWAY.
IF "YES," HAVE YOU DISCUSSED THIS PROPOSAL WITH ANYONE (FROM OTHER DEPARTMENTS, PROGRAMS, OR OTHER INSTITUTIONS) REGARDING THE IMPACT? WERE ANY AGREEMENTS MADE (ENTER "NA" OR COMMENTS)?	THIS COURSE WAS DEVELOPED IN COOPERATION WITH THE DEVELOPMENTAL STUDIES PROGRAM AND THE VPAA'S OFFICE.

SECTION III (MUST COMPLETE EACH ITEM BELOW)

PROVIDE JUSTIFICATION FOR EACH CHANGE ON THIS PROPOSED CURRICULUM ACTION (OTHER EXPLANATORY INFORMATION)—ENTER "NA" OR TEXT:

IN ACCORDANCE WITH SENATE BILL 1720, THIS COURSE WILL PROVIDE A MORE EXPEDIENT AND LESS EXPENSIVE PATH FROM DEVELOPMENTAL TO COLLEGE-LEVEL MATHEMATICS COURSES FOR STUDENTS IN THE LIBERAL ARTS META-MAJORS AND CAN BE EASILY ADAPTED TO PROVIDE A CONTEXTUALIZED EXPERIENCE FOR GROUPS OF STUDENTS WITH COMMON EDUCATION GOALS.

THE COURSE OUTLINE WAS DEVELOPED BY REFERENCING MATERIALS FROM COURSES WITH SIMILAR NAMES BEING TAUGHT AT MIAMI UNIVERSITY COLLEGE IN OHIO, PARKLAND COMMUNITY COLLEGE AND ROCK VALLEY COLLEGE IN ILLINOIS, AND SAINT PETERSBURG COLLEGE IN FLORIDA. THE COURSE IS ALSO BASED ON WORK DONE BY THE NEW LIFE PROJECT (A SUBCOMMITTEE OF AMATYC'S DEVELOPMENTAL MATHEMATICS COMMITTEE), THE QUANTWAY (PATHWAY) COURSE BEING TAUGHT AT 21 COMMUNITY COLLEGES IN 10 STATES THROUGH THE CARNEGIE FOUNDATION, AND THE NEW MATHWAYS PROJECT DEVELOPED AT THE CHARLES A. DANA CENTER AT THE UNIVERSITY OF TEXAS AT AUSTIN (A STATE-WIDE, COLLABORATIVE REFORM EFFORT AMONG 9 OF THE 50 TEXAS COMMUNITY COLLEGES AND THE TEXAS ASSOCIATION OF COMMUNITY COLLEGES).

NOTE: Changes for the Fall 2014 Term must be submitted by the January 2014 deadline and approved no later than the February 2014 Curriculum Committee meeting prior to the start of the next academic year. Changes during mid-school year are NOT permitted. Extreme circumstances will require approval from the appropriate dean as well as the Vice President, Academic Affairs to begin in either the spring or summer term.

TERM IN WHICH PROPOSED ACTION WILL TAKE PLACE:

EXCEPTION - REQUIRES 2 APPROVALS

SUMMER B 2014

ORDER OF APPROVAL FOR EXCEPTIONS IS AS FOLLOWS:

SIGNATURE #1 NEEDED FOR EFFECTIVE TERM EXCEPTION:

EDISON STATE COLLEGE
CURRICULUM COMMITTEE

X Theo Koupelis
~~DISTRICT DEAN OF INSTRUCTION~~ School

SIGNATURE #2 NEEDED FOR EFFECTIVE TERM EXCEPTION:

X James H. Wright
VICE PRESIDENT OF ACADEMIC AFFAIRS

FACULTY ENDORSEMENTS:

PLEASE SEPARATE FACULTY MEMBERS WITH A COMMA (,)

All Mathematics Faculty in attendance at the February 7, 2014, department meeting endorsed this course proposal.

DEPARTMENT CHAIR / PROGRAM COORDINATOR ENDORSEMENT:

JoAnn Lewin

2/19/2014

DEAN ENDORSEMENT:

Theo Koupelis

2/21/2014

DEANS' COUNCIL REVIEW – VERIFIED BY:

Mary Myers

3/17/2014

FOR CURRICULUM COMMITTEE MEETING DATE:

MARCH 28, 2014

Completed curriculum proposals must be uploaded to the dropbox by the deadline. Please refer to the *Curriculum Committee Critical Dates for Submission for Proposals* document available in the document manager in the MyEdisonState Portal:

- Document Manager
- VP Academic Affairs
- Curriculum Process Documents