ACADEMIC SENATE PROPOSAL TRACKING SHEET

(Document To Be Originated By the Academic Senate Secretary On Canary Color Paper)

| Proposal # 20-11 | Title: | M 121L College Algebra Lab | JAN 15 2021 |
|------------------|--------|----------------------------|-------------|
| | | | |

(Proposal explanation, submitter and college dean signatures on attached program/degree or course revision form.)

All proposals MUST have their originating college faculty body (Ex. Arts & Sciences, Education and Nursing; Technical Sciences) approval and must be signed by the submitter and the college dean before being submitted to the Academic Senate Secretary.

- 1. Submit all proposals (using the appropriate Academic Senate program/degree and/or course revision forms or General Education Inclusion form) to the Academic Senate Secretary. NOTE: Level 1 or Level 2 forms must be submitted concurrent with this proposal where applicable. For Education proposals, PEU approval must be received prior to forwarding the proposal to the Senate.
- 2. The Academic Senate Secretary logs and numbers items and forwards them to the appropriate Academic Senate subcommittee(s): General Education (if applicable), or Curriculum. A transmittal e-mail will be sent to the Recording Secretary of the receiving committee, cc Provost's Administrative Assistant, by the Academic Senate Secretary. A digital copy of the proposal will be linked on the Academic Senate Proposal page by the Academic Senate Secretary.
- 3. The Academic Senate subcommittee(s) consider(s) the proposal. If approved, the proposal is returned to the Academic Senate Secretary for forwarding to the next committee. If a committee disapproves the proposal, the originator may request that the item be forwarded to the next body for consideration. The committee will provide written rationale to the originator, via the Academic Senate, when a proposal is disapproved and the proposal is returned to the originator. Upon completion of committee action, the proposal will be returned to the Academic Senate Secretary, and a transmittal e-mail sent by the Committee Recorder to the Senate Secretary, cc Provost's Administrative Assistant.
- 4. The Academic Senate considers the proposal and recommends approval or disapproval. If approved, the proposal is forwarded to the Provost for consideration. If the Academic Senate disapproves the proposal, the originator may request that the item be forwarded to the Full Faculty for consideration, utilizing the procedures set forth in the Senate Bylaws. The Academic Senate will provide written rationale to the originator when proposals are disapproved and the proposal is returned to the originator.
- 5. Approved proposals will be forwarded to the Provost. The Provost approves or disapproves the proposal. If approved, the proposal is then forwarded to the Chancellor. From this point forward, the Provost's Administrative Assistant will update the Proposal page on the website.
- 7. The Chancellor approves or disapproves the proposal.
- 8. The proposal will then either be implemented or referred to MSU for further action. The tracking page on the Provost site will be updated as required.

Subcommittee and Academic Senate college representatives will notify their respective colleges' of the progress of submitted proposals or the

proposal may be tracked via the web page -- http://www.msun.edu/admin/provost/senate/proposals.htm

Documentation and forms for the curriculum process is also available on the web page: http://www.msun.edu/admin/provost/forms.htm

*****(If a proposal is disapproved at any level, it is returned through the Academic Senate secretary and the Senate President, to the Dear of the N submitting college who then notifies the originator.

| | Date | Action Taken | Signature | Date | Comments/Reason for Disapproval | Sent to | Date | Transmittal E-mail sent |
|--------------------------|-----------|--------------------------------|--------------|--------|------------------------------------|----------|----------|---|
| *Abstract | | Copy to Senate | | | | | | |
| received by | | President. Forward | | | | | | |
| Senate Secretary | | to Provost. | | | | | | |
| *Provost | | ☐ Abstract Approved | | | | | | |
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| Registrar | | Catalog/Policy | | | | | | |
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NOTE: The secretary of the Academic Senate will update the Academic Senate Proposal web page from initial receipt until the proposal reaches the Provost. The Provost's Administrative Assistant will ensure that the current status of each proposal is maintained on the Academic Senate Proposal web page from that point forward.

*Abstract and pre-approval required for new programs ONLY.

Academic Senate Form 1 (Revised 3/21/2012)

COURSE REVISION FORM &

| NEW_XX_ DROPPED M | IAJOR REVISION / FOR INFORMAT | TION ONLY |
|-----------------------|---|---------------|
| College_CASE | Program Area <u>Mathematics</u> | Date 10/25/20 |
| Submitter MATA Dept M | Dean Signature (indicates "college" level app | Date |
| a week chair | | |

Please provide a brief explanation & rationale for the proposed revision(s):

In order to enable students to better register for, add, and drop the lab component of math as well as make scheduling smoother, we wish to add the lab as a separate course which, based on test scores, will be taken it as a co-requisite. This will also aid us in balancing credit load for instructors. In order to accomplish this, we need to create this new course

Please provide the following information:

College: CASE

Program Area: Mathematics

Date: 10/25/2020

Course Prefix & No.: M 121L

Course Title: College Algebra Lab

Credits: 1

Required by: All 2 and 4 year programs, as well as some certificate programs

Selective in:

Elective in:

General Education:

Lecture: 0 Lecture/Lab: Gradable Lab: 1

Contact hours lecture: Contact hours lab: 2

Current Catalog Description (include all prerequisites):

NONE listed

Proposed or New Catalog Description (include all prerequisites):

This course supports the student in successful completion of M 121. Students will have lab time to work on refining their mathematical skills needed in M 121 and beyond. Students will use lab time with more individual attention to work on mathematical concerns. This course must be taken concurrently with M 121 as needed, in accordance with Board of Regents Policy 301.16, as explained in this catalog under General Education Course Placement.

Course Outcome Objectives:

Upon successful completion of this course, students will be able to

1) Simplify, factor, and perform and of the basic arithmetic operations on polynomials and rational expressions.

- 2) Perform arithmetic operations and simplify algebraic expressions with rational exponents including rationalize a denominator.
- 3) Solve linear, quadratic, and rational, exponential and logarithmic equations and be able to use each of these to model and solve applied problems.
- 4) Solve absolute value equations and inequalities and express solutions of inequalities in interval notation.
- 5) Identify relations vs functions; use function notation; identify domain, range, intervals of increasing/decreasing/constant values; algebraically and graphically identify even and odd functions.
- 6) Find zeros, asymptotes, and domain of rational functions.
- 7) Evaluate and sketch graphs of piecewise functions and find their domain and range.
- 8) Use algebra to combine functions and form composite functions, evaluate both combined and composite functions and their graphs and determine their domains.
- 9) Identify one to one functions, find and verify inverse functions, and sketch their graph.
- 10) Write logarithms as exponentials and vise versa.
- 11) Solve exponentials and logarithms using the one to one property or inverse properties.
- 12) Expand and condense logarithmic expressions.

Additional instructional resources needed (including library materials, special equipment, and facilities). Please note: approval does not indicate support for new faculty or additional resources. Course requires computer lab access and may require use of the library and library databases.

Updated 09/29/05

CASE PROPOSAL TRACKING SHEET

(Document to be Originated by the CASE Admin. Associate)

1. Submit all proposals using the appropriate Academic Senate Program/Degree and/or course revision forms to the CASE Admin. Associate

| 2. The CASE | Admin. Associate forwa | ards them to the approp | oriate CASE Committee |
|--|------------------------|---------------------------|--------------------------------|
| Proposal Number: # 40 | 0 Name: M 12: | 1L College Algebra Lab | |
| Received by the CASE Admin Associate | Date: 10-27.3 | 1030 TA | BLED |
| Forward to the CASE College Meeting | Date: 1.24.2020 | Approved Chair's Signatur | Not Approved ///24/202 Te Date |
| Return to CASE Admim | Date: | | |
| Forward to the Professional Education Unit | Date: | NA Approved | Not Approved |
| | | P E U Signatur | re Date |
| Return to CASE Admin | Date: 12.303 | 030 | |
| Forward to the Dean of CASE | Date: 1 · W: 203 | Approved Aultu | Not Approved |
| | | Dean's Signatu | re Date |
| Return to CASE Admin | Date:1-15-2021 | | |
| Forward to Academic Senate Subcommittees | Date: 15-202 | J | |
| Updated 12-09-2019 DDB Updated 10/03/2018 DDB | | | |

Updated 11/23/2020 DDB