MATH238 - Differential Equations

Document Type:	Master Course Outline Supplemental
Proposal Type:	Revision
Requester(s):	Rick A Downs
College:	South
Origination Approved:	06/12/2014 - 10:45 AM

BASIC INFORMATION

Requester(s):	Rick A Downs
College:	South Seattle Community College
Division/Dept:	Academic Programs
Dean:	Laura Kingston
Peer Reviewer(s):	Ryan Dorman

COLLEGE SUPPLEMENTAL

Proposed Quarter of Implementation: NA   ☑ Request Provisional Exception

Fall 2014 implementation

Class Capacity: 35

Modes of Delivery: (Check all that apply)

☑ Fully On Campus

☐ Fully Online

☑ Hybrid

☐ Other   Explanation:

Select the Special Designation(s) this course will satisfy, if applicable:

(No Special Designations Selected)

Class Schedule Description:

Covers first and second order differential equations, their applications, and Laplace transforms. Covers the elementary theory of differential equations and the interrelationship between pure mathematics and applied mathematics. Prerequisite: MATH& 152 or higher; Math& 163 strongly recommended.

Student Learning Outcomes:

Computation

Use arithmetic and other basic mathematical operations as required by program of study

Apply quantitative skills for academic and career purposes

Critical Thinking and Problem-Solving

Think critically in evaluating information, solving problems, and making decisions

Technology

Select and use appropriate technological tools for academic and career tasks

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Program Outcomes:

SLO #	Included in Course Objective Number	SSCC Student Learning Outcomes
SLO 1.1		Communication - Read and listen actively to learn and comm
SLO 1.2		Communication - Speak and write effectively for academic a purposes.
SLO 2.1	1, 2, 3	Computation - Use arithmetic and other basic mathematical required by program of study.
SLO 2.2	1, 2, 3	Computation - Apply quantitative skills for academic and car
SLO 3.1		Human Relations - Use social skills to work in groups effectiv
SLO 3.2		Human Relations – Have knowledge of the diverse cultures r our multicultural society.
SLO 4.1	1, 2, 3	Critical Thinking—Think critically in evaluating information, s problems, and making decisions.
SLO 5.1	1, 2, 3	Technology - Select and use appropriate technological tools and career tasks.
SLO 6.1		Personal Responsibility – Uphold the highest standards of ac honesty and integrity.
SLO 6.2		Personal Responsibility – Respect the rights of others in the online, and in all other school activities.
SLO 6.3		Personal Responsibility – Attend class regularly, complete as time, and effectively participate in classroom and online disc work, and other class-related projects and activities.
SLO 6.4		Personal Responsibility – Abide by appropriate safety rules ir shops, and classrooms.
SLO 7.1		Information Literacy—Independently access, evaluate, and s information from a variety of appropriate sources.
SLO 7.2		Information Literacy – Have knowledge about legal and ethic related to the use of information
SLO 7.3		Information Literacy - Use information effectively and ethica specific purpose.

Course Outcomes / Objectives:

Course Objectives

At the end of the course, a student should be able to:

1. Solve first and second order linear homogeneous and non-homogeneous differential equations.

2. Solve Initial Value Problems using Laplace Transforms.
3. Set up and solve application problems in physics and engineering using ordinary differential equations.

Explain the student demand for the course and potential enrollment:

Approximately 25 students will take the class fall and spring quarter at South. The class is also offered at North and Central.

Explain why this course is being revised:

Math 238 is an existing course. The course outline is being revised to make it in compliance with the UW class that it is equivalent to - Math 307.

What challenges, if any, do you foresee in offering this course:

There are no challenges in offering the course since it has already been taught for many years. The instructors for the class do not see any problems with covering the topics listed in the revised course outline.

This is to certify that the above criteria have all been met and all statements are accurate to the best of my knowledge.

Faculty involved in originating this program:

Rick A Downs	*Rick A Downs*	5/14/2014
Print Name	**Signature**	**Date**

Dean:

Laura Kingston	*Laura Kingston*	5/30/2014
Print Name	**Signature**	**Date**

Results of SSCC Curriculum Coordinating Council Findings

Participating Faculty Response and Remarks

[X] Recommended for approval

[ ] Not recommended for approval

Chairman, Curriculum Coordinating Council:

Diane Schmidt	*Diane Schmidt*	6/12/2014
Print Name	**Signature**	**Date**

Vice President for Instruction:

Donna Miller-Parker	*Donna Miller-Parker*	6/12/2014
Print Name	**Signature**	**Date**