MATH&152 - Calculus II

Document Type: Master Course Outline Supplemental
Proposal Type: Revision
Requester(s): Rick A Downs
College: South
Origination Approved: 06/11/2014 - 10:32 AM

BASIC INFORMATION

Requester(s): Rick A Downs

College: South Seattle Community College

Division/Dept: Academic Programs

Dean: Laura Kingston

Peer Reviewer(s): Ted Coskey

Bryan Johns

COLLEGE SUPPLEMENTAL

Proposed Quarter of Implementation: NA   ☑ Request Provisional Exception

The state requested that we change the number of the 3rd course in this sequence and that we were to offer that class Summer Quarter 2014. This revision is to make the Math& 152 outline reflect the change in the course number for the third class in the sequence.

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 definite and indefinite integrals; techniques of integration; applications of integration; and an introduction to differential equations.NOTE: While institutions usually cover the same topics throughout the calculus sequence, individual topics may be covered in different courses within the sequence. To ensure proper transfer credit, students should consult with an adviser before taking different parts of the sequence at different institutions. Prerequisite: Math& 151 with a 2.0 or higher.

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 - 6	Computation - Use arithmetic and other basic mathematical required by program of study.
SLO 2.2	1 - 6	Computation - Apply quantitative skills for academic and care
SLO 3.1		Human Relations - Use social skills to work in groups effectiv
SLO 3.2		Human Relations – Have knowledge of the diverse cultures our multicultural society.
SLO 4.1	1 - 6	Critical Thinking—Think critically in evaluating information, s problems, and making decisions.
SLO 5.1	1 - 6	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:

Upon completion of the course, the student should be able to:

1. Interpret the area enclosed between two curves as a definite integral and compute its value.
2. Interpret a volume of revolution of a function's graph around a given axis as a (Riemann) sum of disks or cylindrical shells, convert to definite integral form and compute its value.
3. Evaluate definite and indefinite integrals using a variety of techniques, including substitution, integration by parts, trig substitution, trig integration, inverse trig, and partial fraction decomposition.
4. Determine the convergence of improper integrals with discontinuities in their domain or infinite limits of integration.
5. Solve various application problems in science and engineering using integration.
6. Use separation of variables to solve simple differential equations.

Explain the student demand for the course and potential enrollment:

The class is offered six times a year at South.

Explain why this course is being revised:

This course revision is to update the outline to account for the change in the number of the third course in this sequence from Math& 153 to Math& 163.

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

None.

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*	6/5/2014
Print Name	**Signature**	**Date**

Dean:

Laura Kingston	*Laura Kingston*	6/4/2014
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*	6/10/2014
Print Name	**Signature**	**Date**

Vice President for Instruction:

Donna Miller-Parker	*Donna Miller-Parker*	6/11/2014
Print Name	**Signature**	**Date**