

_____SOUTH SEATTLE COMMUNITY COLLEGE_____

Academic Programs

COURSE OUTLINE

Revision: Mike Steffancin, May 2008

DEPARTMENT:	Academic Programs
CURRICULUM:	Applied Academics
COURSE TITLE:	Technical Physics III
COURSE NUMBER:	PHYS 113
TYPE OF COURSE:	Academic Transfer
Special Requirement Met:	None
AREA(S) OF KNOWLEDGE:	None
COURSE LENGTH:	1 quarter
CREDIT HOURS:	5
LECTURE HOURS:	33
LAB HOURS:	44
CLASS SIZE:	24
PREREQUISITES:	PHYS 112 (Technical Physics II) or instructor's permission

COURSE DESCRIPTION:

Covers oscillations, mechanical waves, sound, electromagnetic waves, optics, atomic and nuclear physics. Lab included.

PHYS 113 Technical Physics III
May 2008

STUDENT LEARNING OUTCOMES ADDRESSED:

1. Computation – Use arithmetic and other basic mathematical operations as required by program of study. Apply quantitative skills for personal, academic and career purposes.
2. Critical Thinking and Problem Solving – Think critically in evaluating information, solving problems and making decisions.

GENERAL COURSE OBJECTIVES:

At the end of the course the student will:

1. Have an understanding of the basic principles, analytical methods and terminology of wave motion, acoustics and optics.
2. Develop competence in problem analysis and solution by experimental as well as theoretical methods.

TOPICAL OUTLINE

- | | | | |
|------|--------------------|--|--|
| I. | Oscillation | | |
| II. | Wave Motion | | |
| III. | Sound | | |
| IV. | Geometrical Optics | | |
| V. | Physical Optics | | |
| VI. | Atomic Physics | | |
| VII. | Nuclear Physics | | |

Total

66

REVISED BY: Mike Steffancin
DATE: May 2008

Course Prefix and Number: PHYS 113
 Course Title: Technical Physics III

SLO #	Included in Course Objective Number	SSCC Student Learning Outcomes
SLO 1.1	1	Communication - Read and listen actively
SLO 1.2		Communication - Speak and write effectively
SLO 2.1	1, 2	Computation - Use mathematical operations
SLO 2.2	1, 2	Computation - Apply quantitative skills
SLO 2.3	1, 2	Computation - Identify, interpret, and utilize higher level mathematical and cognitive skills
SLO 3.1		Human Relations - Use social interactive skills to work in groups effectively
SLO 3.2		Human Relations - Recognize the diversity of cultural influences and values
SLO 4.1	1, 2	Critical Thinking and Problem Solving -
SLO 5.1	1, 2	Technology - Select and use appropriate technological tools
SLO 6.1		Personal Responsibility - Be motivated and able to continue learning and adapt to change
SLO 6.2		Personal Responsibility - Value one's own skills, abilities, ideas and art
SLO 6.3		Personal Responsibility - Take pride in one's work
SLO 6.4		Personal Responsibility - Manage personal health and safety
SLO 6.5		Personal Responsibility - Be aware of civic and environmental issues
SLO 7.1	1	Information Literacy - Access and evaluate information
SLO 7.2	1	Information Literacy - Use information to achieve personal, academic, and career goals, as well as to participate in a democratic society

PREPARED BY: Mike
 Steffancin
 DATE: August 2008