

## Administrative Master Syllabus

### Course Information

<b>Course Title</b>	Nuclear Power Plant Systems II
<b>Course Prefix, Num. and Title</b>	NUCP 2470 Nuclear Power Plant Systems II
<b>Division</b>	Vocational Science
<b>Department</b>	Nuclear Power Technology
<b>Course Type</b>	WECM Course
<b>Course Catalog Description</b>	(Capstone Course) Study of systems used in nuclear power plants and their association with the reactor core. Included is instruction on plant lighting, various cooling water systems, diesel generators, freeze protection, chemical and oily waste and more. Also includes instruction on some safety related nuclear power plant systems. Includes lab
<b>Pre-Requisites</b>	NUCP 1370; NUCP 1373; and NUCP 2470
<b>Co-Requisites</b>	None

### Semester Credit Hours

<b>Total Semester Credit Hours (SCH): Lecture Hours:</b>	4:3:2
<b>Lab/Other Hours</b>	
<b>Equated Pay Hours</b>	4
<b>Lab/Other Hours Breakdown: Lab Hours</b>	2
<b>Lab/Other Hours Breakdown: Clinical Hours</b>	Enter Clinical Hours Here.
<b>Lab/Other Hours Breakdown: Practicum Hours</b>	Enter Practicum Hours Here.
<b>Other Hours Breakdown</b>	List Total Lab/Other Hours Here.

### Approval Signatures

Title	Signature	Date
<b>Department Head:</b>		
<b>Division Chair:</b>		
<b>VPI:</b>		

## **Additional Course Information**

**Topical Outline:** Each offering of this course must include the following topics (be sure to include information regarding lab, practicum, and clinical or other non-lecture instruction).

### TOPICAL OUTLINES:

Makeup Demineralizer  
Demineralized Water Storage and Transfer Essential Cooling Water and Ventilation Fresh Water  
Open Loop Auxiliary Cooling Water  
Well Water Plant Lighting  
Non-Class Diesel Generators  
ESF Diesel Generators  
Temperature Monitoring and Freeze Protection  
BOP Chemical Feed Oily Waste Treatment  
Non-Radioactive Plant Drains  
Service Water  
Main Generator Circuit Breaker Inservice Testing  
Non-Radioactive Chemical Waste Makeup Demineralizer  
Demineralized Water Storage and Transfer

### Lab Work:

Plant tours and/or power points  
The course features an integrated lab to enhance lectures.

## **Learning Outcomes – Upon successful completion of this course, students will:**

Upon successful completion of this course, students will be able to apply technical skills in the following areas:

1. Describe basic nuclear power plant secondary systems.
2. Know water systems and waste treatment systems

### **Methods of Assessment:**

Periodic written quizzes and exams.  
Exam analysis will be performed to identify weaknesses in program.

## **Required text(s), optional text(s) and/or materials to be supplied by the student:**

Handouts for each lesson plan.

## **Suggested Course Maximum:**

35

**List any specific or physical requirements beyond a typical classroom required to teach the course.**

Associated lab requirements.

**Course Requirements/Grading System:** Describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course.

1. Quizzes, homework assignments, projects, and class participation 25%
2. Lab, and Cross Disciplinary Skills (work ethic, safety, teamwork, housekeeping, attitude) 25%
3. Mid-term Exam 25%
4. Final Examination 25%

90 to 100: A

80 to 89: B

70 to 79: C

60 to 69: D

0 to 59: F

Note: For the additional NUCP certificate, the student must complete the course with a minimum of 80%.

**Curriculum Checklist:**

- Administrative General Education Course** (from ACGM, but not in WCJC Core) – No additional documents needed.
- Administrative WCJC Core Course** – Attach the Core Curriculum Review Forms
  - Critical Thinking
  - Communication
  - Empirical & Quantitative Skills
  - Teamwork
  - Social Responsibility
  - Personal Responsibility
- WECM Course** – If needed, revise the Program SCANS Matrix and Competencies Checklist