



Wayne County Community College District

COURSE SYLLABUS

HVA 210 Steam II

CREDIT HOURS: 3.00

CONTACT HOURS: 45.00

COURSE DESCRIPTION:

This course introduces students to the field of Stationary Engineering as it relates to the operation of fossil fuel based power plants. Topics covered include the steam plant cycle, coal fired boilers, oil and gas fired boilers, industrial and small power plants, super heat steam temperature control, furnace design, boiler settings, boiler accessories, combustion of fuels, pumps, steam turbines, super heaters, condensers, cooling towers, and waste to energy plants.

PREREQUISITE: *HVA 205*

EXPECTED COMPETENCIES:

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

This course will assist along with other 200 level HVA Courses to prepare students for boiler operations and licensing.

- Understand the fundamentals of heat, steam and other vapors.
- Understand the fundamentals of gases and vapor cycles, fuels and combustion.
- Understand the fundamentals of steam power plants, heat engines, building heating systems and instruments.

ASSESSMENT METHODS:

Student performance may be assessed by examination, quizzes, case studies, oral conversation, group discussion, oral presentations. The instructor reserves the option to employ one or more of these assessment methods during the course.

GRADING SCALE:

90%-100% = A

80%-89.9%= B

70%-79.9%= C

60%-69.9%= D

<60% = E