

MATA KULIAH	Nama Mata Kuliah : Rotating Equipment
	Kode MK : VI231630
	Kredit : 3 SKS
	Semester : VI

DESKRIPSI MATA KULIAH

MK Rotating Equipment berada di semester VI dengan bobot 3 sks. Matakuliah Rotating Equipment ini termasuk dalam rumpun matakuliah Instrumentasi Safety di Departemen Teknik Instrumentasi FV –ITS. Mata kuliah ini membahas tentang rotating equipment serta penerapannya dalam sistem instrumentasi industri.

CAPAIAN PEMBELAJARAN LULUSAN YANG DIBEBANKAN MATA KULIAH

- Mampu mengkaji kasus penerapan ilmu pengetahuan dan teknologi di bidang keahlian sesuai standar kompetensi kerja, serta mampu mengambil keputusan secara tepat dari hasil kerja sendiri maupun kerja kelompok dalam bentuk laporan tugas akhir atau bentuk kegiatan. (CPL-2)
- Mampu berkomunikasi, menulis laporan serta membuat presentasi secara efektif. (CPL-4)
- Mampu merancang solusi untuk masalah teknologi dan rekayasa Instrumentasi serta dapat berkontribusi pada desain sistem, komponen maupun proses untuk memenuhi kebutuhan tertentu dengan mempertimbangkan standar keamanan, kesehatan dan keselamatan publik. (CPL-7)
- Mampu melakukan investigasi terhadap permasalahan instrumentasi industri, mencari, memilih data yang relevan dari literatur, merancang dan melakukan eksperimen untuk memberikan kesimpulan yang valid. (CPL-8)
- Mampu memilih, menggunakan dan menerapkan teknik dan sumber daya yang tepat termasuk penggunaan piranti keras maupun lunak yang

mutakhir untuk memberikan solusi atas permasalahan di bidang rekayasa Instrumentasi. (CPL-9)

CAPAIAN PEMBELAJARAN MATA KULIAH

- Mahasiswa mampu memahami dasar rotating equipment.
- Mahasiswa mampu mengidentifikasi karakteristik rotating equipment.
- Mahasiswa mampu menganalisis permasalahan gangguan pada rotating equipment.
- Mahasiswa mampu menerapkan metode sistem lubrikasi, monitoring dan keandalan rotating equipment.

POKOK BAHASAN

- Pengantar Rotating Equipment
- Pengantar Rotating Equipment Lanjutan
- Kompresor
- Kompresor Lanjutan
- Pompa
- Pompa Lanjutan
- Gangguan Hidrolik Pompa Sentrifugal
- Gangguan Hidrolik Pompa Sentrifugal Lanjutan
- Gas Turbine
- Gas Turbine Lanjutan
- Sistem Lubrikasi, Monitoring Keandalan Komponen Rotating Equipment
- Sistem Lubrikasi, Monitoring Keandalan Komponen Rotating Equipment Lanjutan

PRASYARAT

PUSTAKA

Utama:

Pendukung:

Silabus Mata Kuliah
Program Studi Sarjana Terapan Teknologi Rekayasa Instrumentasi

COURSE	Course Name : Rotating Equipment
	Course Code : VI231630
	Credit : 3 SKS
	Semester : VI

DESCRIPTION OF COURSE

Rotating Equipment course is in semester VI with a weight of 3 credits. This Rotating Equipment course is included in the Safety Instrumentation course at the FV –ITS Instrumentation Engineering Department. This course discusses rotating equipment and its application in industrial instrumentation systems.

LEARNING OUTCOMES

- Able to review cases of the application of science and technology in areas of expertise according to work competency standards, and able to make appropriate decisions from the results of their own work or group work in the form of a final project report or form of activity. (CPL-2)
- Able to communicate, write reports and make presentations effectively. (CPL-4)
- Able to design solutions to instrumentation technology and engineering problems and be able to contribute to the design of systems, components, and processes to meet certain needs by taking into account safety, health and public safety standards. (CPL-7)
- Be able to investigate industrial instrumentation problems, search for, select relevant data from the literature, design, and conduct experiments to provide valid conclusions. (CPL-8)
- Able to select, use and apply the right techniques and resources including the use of the latest hardware and software to provide solutions to problems in the field of Instrumentation engineering. (CPL-9)

COURSE LEARNING OUTCOME

- Students can understand the basics of rotating equipment.
- Students can identify the characteristics of rotating equipment.

- Students can analyze disturbance problems in rotating equipment.
- Students can apply the lubrication system method, monitoring and reliability of rotating equipment.

MAIN SUBJECT

- Introduction to Rotating Equipment
- Introduction to Advanced Rotating Equipment
- Compressor
- Advanced Compressor
- Pump
- Advanced Pump
- Centrifugal Pump Hydraulic Fault
- Advanced Centrifugal Pump Hydraulic Interference
- Gas Turbine
- Advanced Gas Turbine
- Lubrication System, Monitoring the Reliability of Rotating Equipment Components
- Lubrication System, Advanced Rotating Equipment Component Reliability Monitoring

PREREQUISITES

REFERENCE

Main:

Support: