Mata Kuliah : Instalasi Tenaga Kapal
Kode/Bobot/Semester : MP 2.34.4.3/3 SKS (1-2)/IV
Capaian Pembelajaran : Mampu mengidentifikasi, mengoperasikan dan merawat instalasi tenaga kapal penangkap ikan

No	Kompetensi	Sub Kompetensi/Pokok Bahasan	Tatap Muka Ke-
1	Mengidentifikasi prinsip kerja instalasi tenaga kapal pada kapal penangkap ikan	1.1 Jenis penggerak utama kapal (Diesel engine, Gas Turbine, Diesel Electric, Wind Propulsion, Nuclear, Hydrogen Fuel Cell, Steam Turbine, Water Jet, Gas Fuel)	1
		1.2 Komponen instalasi tenaga kapal	
		1.3 Fungsi komponen instalasi tenaga kapal	
		1.4 Multi-engine propulsion arrangement	2
2	Mengidentifikasi prinsip kerja instalasi poros pada kapal penangkap ikan	2.1 Prinsip kerja porors	3
		2.2 Shaft Alignment	
		2.3 Kekuatan poros	
		2.4 Poros propeller dan stern tube	
		2.5 Controllable-pitch propellers	4
		2.6 Shaft fittings	
		2.7 Thrust block	
		2.8 Balancing	
		2.9 Getaran dan kebisingan	5
3	Melakukan pengoperasian dan perawatan ouboard motors	3.1 Komponen utama outboard motors	6
		3.2 Pengoperasian outboard motor	
		3.3 Troubleshooting outboard motor	7
		3.4 Perawatan umum outboard motor	
Ujian Tengah Semester			8

No	Kompetensi	Sub Kompetensi/Pokok Bahasan	Tatap Muka Ke-
4.	Melakukan pengoperasian dan perawatan sistem transmisi	4.1 Fungsi dan jenis transmisi	9
		4.2 Prinsip kerja transmisi (mekanik dan hidrolik)	
		4.3 Komponen sistem transmisi	10
		4.4 Pengoperasian sistem transmisi	11-12
		4.5 Perawatan sistem transmisi	
		4.6 Troubleshooting sistem transmisi	
5.	Mengidentifikasi instalasi, pengoperasian dan perawatan marine gas turbine	5.1 Siklus gas turbin	13-14
		5.2 Siklus kombinasi	
		5.3 Komponen utama turbin gas	
		5.4 Gas turbin sebagai mesin penggerak utama kapal	15
		5.5 Instalasi, pengoperasian, dan perawatan gas turbin	
Ujian Akhir Semester			16

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5. Jackson, L. and Morton, T.D. General Engineering Knowledge for Marine Engineers. 5th
6. Joel, R. Basic Engineering Thermodynamics in SI. Units. 5th ed. Harlow, Longman, 1996 (ISBN 0582256291)
7. Kuiken, K. 2017. Diesel Engines: For Ship Propulsion and Power Plants from 0 to 100,000Kw part I. In: Regulations for Propulsion Engines, Classification, Repair and Damage, 3rd Edition, Onnen Target Global Energy Training, Netherlands

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