

RENCANA PEMBELAJARAN SEMESTER

(RPS)

PROGRAM STUDI	:	Teknik Keselamatan dan Resiko (Safety and Risk Engineering)
MATA KULIAH	:	MANAJEMEN KESELAMATAN LINGKUNGAN LAUT
BOBOT	:	Teori : 1 SKS ; Praktikum : 2 SKS
DOSEN PENGAMPU	:	1. Dr. Capt. Erwin F. Manurung, M.M.Tr 2. Dr. Abdul Rachman, MM. 3. Dr. Capt. Marihot Simanjuntak, MM



SEKOLAH TINGGI ILMU PELAYARAN (STIP)
JAKARTA
2024

RENCANA PEMBELAJARAN SEMESTER (RPS)

Universitas	:	Sekolah Tinggi Ilmu Pelayaran (STIP) Jakarta
Program	:	Pasca Sarjana Terapan
Program Studi	:	Teknik Keselamatan dan Resiko (Safety and Risk Engineering)
Mata Kuliah	:	MANAJEMEN KESELAMATAN LINGKUNGAN LAUT
Bobot/Sks	:	Teori 1 sks , Praktek 2 sks
Kode Mata Kuliah	:	22210310 (T) / 22210320 (P)
Sifat	:	Teori dan Praktek
Pra-Syarat (jika ada)	:	-
Semester	:	I (Satu)
Periode Kuliah	:	Semester Ganjil
Jumlah Pertemuan tatap muka	:	16 Tatap Muka
Jadwal Kuliah	:	1 (satu) kali seminggu
Ruang	:	
Dosen Pengampu	:	<ol style="list-style-type: none"> 1. Dr. Capt. Erwin F. Manurung, M.M.Tr 2. Dr. Abdul Rachman, MM. 3. Dr. Capt. Marihot Simanjuntak, MM

A. DESKRIPSI : Mata kuliah tersebut diberikan kepada mahasiswa/i agar dapat menguasai metodologi penelitian

B. CAPAIAN PEMBELAJARAN LULUSAN (CPL)

Ranah	Capaian Pembelajaran Lulusan
SIKAP	<ol style="list-style-type: none"> a. Bertaqwa kepada Tuhan Yang Maha Esa & mampu menunjukkan sikap religious. b. Menjunjung tinggi nilai kemanusiaan dalam menjalankan tugas berdasarkan agama, moral & etika.

Ranah	Capaian Pembelajaran Lulusan
	<p>c. Berkontribusi dalam peningkatan mutu kehidupan bermasyarakat, berbangsa, bernegara, & peradaban berdasarkan Pancasila.</p> <p>d. Berperan sebagai warga negara yang bangga & cinta tanah air, serta memiliki jiwa nasionalisme & rasa tanggungjawab pada negara & bangsa.</p> <p>e. Menghargai keanekaragaman budaya, pandangan, agama & kepercayaan, serta pendapat atau temuan orisinal orang lain.</p> <p>f. Bekerja sama & memiliki kepekaan sosial serta kepedulian terhadap masyarakat & lingkungan.</p> <p>g. Taat hukum & disiplin dalam kehidupan bermasyarakat & bernegara.</p> <p>h. Menginternalisasi nilai, norma, & etika akademik.</p> <p>i. Menunjukkan sikap bertanggungjawab atas pekerjaan di bidang keahliannya secara mandiri.</p> <p>j. Menginternalisasi semangat kemandirian, perjuangan, & kewirausahaan.</p>
PENGETAHUAN	Menguasai Pengetahuan tentang Keselamatan dan Resiko pencemaran lingkungan Laut
Keterampilan Umum	Mampu melakukan kegiatan Keselamatan dan Resiko pencemaran lingkungan Laut
Ketrampilan Khusus	Mampu menerapkan prinsip - prinsip pencegahan pencemaran dilaut,, dampak kegiatan pelayaran pada lingkungan laut

C. CAPAIAN PEMBELAJARAN MATA KULIAH (CPMK)

No	CPMK	SUB-CPMK	INDIKATOR
1.	Pengenalan terhadap keselamatan dan resiko pencemaran lingkungan laut dan Annex I: Prevention of pollution by oil & protocol	International Convention for the Prevention of Pollution from Ships, 1973 , protocol 1978 , Protocol – I , Protocol 1997 Chapter 1 , Chapter 2, Chapter 3, Chapter 4	Mahasiswa dapat memahami prinsip - prinsip pencegahan pencemaran laut berdasarkan International Convention for the Prevention of Pollution from Ships, 1973 , protocol 1978 , Protocol – I , Protocol 1997 Chapter 1 , Chapter 2, Chapter 3, Chapter 4

No	CPMK	SUB-CPMK	INDIKATOR
2	Annex I: Prevention of pollution by oil & protocol - lanjutan Annex II: Control of pollution by noxious liquid substances & protocol	Chapter 5 , Chapter 6, Chapter 7, Chapter 8, Chapter 9 Anex II : Chapter 1 , Chapter 2, Chapter 3, Chapter 4,	Mahasiswa dapat memahami pencegahan pencemaran oleh minyak pada Chapter 5 , Chapter 6, Chapter 7, Chapter 8, Chapter 9 Dan pencemaran cairan beracun pada Chapter 1 , Chapter 2, Chapter 3, Chapter 4
3	Annex II: Control of pollution by noxious liquid substances & protocol - lanjutan Annex III: Prevention of pollution by harmful substances in packaged form & protocol	Chapter 5 , Chapter 6, Chapter 7, Chapter 8 Anex - III Regulation 1; Regulation 2; Regulation 3 ;Regulation 4; Regulation 5;Regulation 6 ; Regulation 7; Regulation 8;	a. Mahasiswa mampu memahami pencemaran cairan beracun pada Chapter 5 , Chapter 6, Chapter 7, Chapter 8. b. Mahasiswa mampu memahami pencegahan pencemaran dari barang berbahaya dalam bentuk kemasan Regulation 1; Regulation 2; Regulation 3 ;Regulation 4; Regulation 5;Regulation 6 ; Regulation 7; Regulation 8;
4	Annex IV: Prevention of pollution by sewage from ships & protocol Annex V: Prevention of pollution by garbage from ships & protocol	Chapter 1, Chapter 2, Chapter 3, Chapter 4, Chapter 5 annex V Regulation 1; Regulation 2; Regulation 3 ;Regulation 4; Regulation 5;Regulation 6 ; Regulation 7; Regulation 8; Regulation 9	Mahasiswa mampu memahami pencegahan polusi kotoran manusia dari kapal Chapter 1, Chapter 2, Chapter 3, Chapter 4, Chapter 5 annex V Regulation 1; Regulation 2; Regulation 3 ;Regulation 4; Regulation 5;Regulation 6 ; Regulation 7; Regulation 8; Regulation 9
5	Annex VI: Prevention of Air Pollution from Ship & protocol ; Shipping Marine Environment Protection	Chapter 1, Chapter 2, Chapter 3 ; Structure and State of the Shipping Sector ; Impacts of Shipping on the Marine Environment; Cumulative Effects; Costs of Environmental Degradation;	a. Mahasiswa dapat mengerti tentang polusi udara dari kapal Chapter 1, Chapter 2, Chapter 3 ; b. Mahasiswa memahami Perlindungan lingkungan laut berdasarkan Structure and State of the Shipping Sector ; Impacts of Shipping on the Marine Environment; Cumulative Effects;

No	CPMK	SUB-CPMK	INDIKATOR
		International Agreements and Management requirements Regulation	Costs of Environmental Degradation; International Agreements and Management requirements Regulation
6.	Sustainable Shipping And Offshore Oil and Gas Production and Transportation	Introduction Sustainable Shipping and the International Community The International Legal Framework of Shipping Port State Control The Uncontrolled Spread of Non-native Aquatic Species Pollution Liability and Compensation Regimes Conclusion Introduction General Characteristics of Impacts Seismic Surveys Field Commissioning Drilling Operations Production Activity Tanker Transportation Transportation by Pipelines Decommissioning Oil Spills	Mahasiswa mampu memahami keberlanjutan pelayaran dan produksi minyak dan gas serta transportasinya dalam hal Pollution Liability and Compensation Regimes Conclusion Introduction General Characteristics of Impacts Seismic Surveys Field Commissioning Drilling Operations Production Activity Tanker Transportation Transportation by Pipelines Decommissioning Oil Spills

No	CPMK	SUB-CPMK	INDIKATOR
7.	Dredging for Navigation, Environmental Cleanup, and Sand/Aggregates for	Introduction Dredging: Purposes, Equipment, and Material Transport Dredged Material Disposal and Beneficial Use Environmental Considerations and Protection of the Marine Environment Environmental Regulation of Dredging and Disposal/ Placement Future Directions: Sustainable Dredging and Dredged Material Management	Mahasiswa dapat mengerti tentang Dredging: Purposes, Equipment, and Material Transport Dredged Material Disposal and Beneficial Use Environmental Considerations and Protection of the Marine Environment Environmental Regulation of Dredging and Disposal/ Placement Future Directions: Sustainable Dredging and Dredged Material Management
8.	Ujian Tengah Semester		

No	CPMK	SUB-CPMK	INDIKATOR
9.	Praktikum thd keselamatan dan resiko pencemaran lingkungan laut dan Annex I: Prevention of pollution by oil & protocol	Praktikum Protocol – I , Protocol 1997 a. Chapter 1 , b. Chapter 2, c. Chapter 3, d. Chapter 4	Mahasiswa dapat mempraktekkan prinsip - prinsip pencegahan resiko pencemaran lingkungan laut berdasarkan konvensi marpol Protocol – I , Protocol 1997 a. Chapter 1 , b. Chapter 2, c. Chapter 3, d. Chapter 4

No	CPMK	SUB-CPMK	INDIKATOR
10.	Praktikum Annex I: Prevention of pollution by oil & protocol - lanjutan Annex II: Control of pollution by noxious liquid substances & protocol	Praktikum annex – 1 ; a. Chapter 5 , b. Chapter 6, c. Chapter 7, d. Chapter 8, e. Chapter 9 Praktikum Anex II : a. Chapter 1 , b. Chapter 2, c. Chapter 3, d. Chapter 4,	Mahasiswa dapat melakukan praktek: a. Pencegahan pencemaran oleh minyak dari kapal 1) Chapter 5 , 2) Chapter 6, 3) Chapter 7, 4) Chapter 8, 5) Chapter 9 b. Pencegahan pencemaran cairan beracun 1) Chapter 1 , 2) Chapter 2, 3) Chapter 3, 4) Chapter 4,
11.	Praktikum– Annex II: Control of pollution by noxious liquid substances & protocol - lanjutan Annex III: Prevention of pollution by harmful substances in packaged form & protocol	Praktikum annex – II a. Chapter 5 , b. Chapter 6, c. Chapter 7, d. Chapter 8 Praktikum Anex - III a. Regulation 1; b. Regulation 2; c. Regulation 3 ; d. Regulation 4; e. Regulation 5; f. Regulation 6 ; g. Regulation 7; h. Regulation 8;	Mahasiswa dapat mempraktekkan a. Pencegahan pencemaran cairan beracun 1) Chapter 5 , 2) Chapter 6, 3) Chapter 7, 4) Chapter 8 b. Pencegahan pencemaran dari barang berbahaya dalam kemasan 1) Regulation 1; 2) Regulation 2; 3) Regulation 3 ; 4) Regulation 4; 5) Regulation 5; 6) Regulation 6 ; 7) Regulation 7;

No	CPMK	SUB-CPMK	INDIKATOR
			8) Regulation 8;
12.	Praktikum, Annex IV: Prevention of pollution by sewage from ships & protocol Annex V: Prevention of pollution by garbage from ships & protocol	Praktikum Anex - !V a. Chapter 1, b. Chapter 2, c. Chapter 3, d. Chapter 4, e. Chapter 5 Praktikum annex V a. Regulation 1; b. Regulation 2; c. Regulation 3 ; d. Regulation 4; e. Regulation 5; f. Regulation 6 ; g. Regulation 7; h. Regulation 8; i. Regulation 9	Mahasiswa dapat melakukan praktek a. Pencegahan pencemaran kotoran manusia dari kapal 1) Chapter 1, 2) Chapter 2, 3) Chapter 3, 4) Chapter 4, 5) Chapter 5 b. Pencegahan pencemaran dari sampah diatas kapal 1) Regulation 1; 2) Regulation 2; 3) Regulation 3 ; 4) Regulation 4; 5) Regulation 5; 6) Regulation 6 ; 7) Regulation 7; 8) Regulation 8; 9) Regulation 9
13	Praktikum Annex VI: Prevention of Air Pollution from Ship & protocol ; Shipping Marine Environment	Praktikum a. Annex VI Chapter 1, Chapter 2, Chapter 3 ; b. Structure and State of the Shipping Sector ;	Mahasiswa mampu mempraktekkan: a. Pencegahan Pencemaran udara dari kapal yang terdiri atas : 1) Annex VI Chapter 1, 2) Chapter 2, 3) Chapter 3

No	CPMK	SUB-CPMK	INDIKATOR
	Protection	<ul style="list-style-type: none"> c. Impacts of Shipping on the Marine Environment; d. Cumulative Effects; e. Costs of Environmental Degradation; f. International Agreements and Management requirements Regulation 	<ul style="list-style-type: none"> b. Perlindungan Lingkungan Laut pada kegiatan pelayaran yang terdiri atas : <ul style="list-style-type: none"> 1) Structure and State of the Shipping Sector ; 2) Impacts of Shipping on the Marine Environment; 3) Cumulative Effects; 4) Costs of Environmental Degradation; 5) International Agreements and Management requirements Regulation
14	Praktikum Sustainable Shipping And Offshore Oil and Gas Production and Transportation	Praktikum Sustainable Shipping and the International Community ; <ul style="list-style-type: none"> a. The International Legal Framework of Shipping : b. Port State Control : c. Pollution Liability and Compensation RegimesGeneral Characteristics of Impacts d. Seismic Surveys e. Drilling Operations f. Tanker Transportation g. Transportation by Pipelines h. Oil Spills 	Mahasiswa dapat melakukan Praktiku tentang keberlanjutan usaha pelayaran yang terdiri atas : <ul style="list-style-type: none"> a. The International Legal Framework of Shipping : b. Port State Control : c. Pollution Liability and Compensation RegimesGeneral Characteristics of Impacts d. Seismic Surveys e. Drilling Operations f. Tanker Transportation g. Transportation by Pipelines h. Oil Spills
15	Dredging for Navigation, Environmental Cleanup, and Sand/Aggregates	Praktikum <ul style="list-style-type: none"> a. Dredging: Purposes, Equipment, and Material Transport b. Dredged Material Disposal and Beneficial Use Environmental Considerations and Protection of the Marine Environment 	Mahasiswa dapat melakukan praktek tentang : <ul style="list-style-type: none"> a. Dredging: Purposes, Equipment, and Material Transport b. Dredged Material Disposal and Beneficial Use Environmental Considerations and Protection of the Marine Environment

No	CPMK	SUB-CPMK	INDIKATOR
		d. Environmental Regulation of Dredging and Disposal/ Placement e. Future Directions: Sustainable Dredging and Dredged Material Management	c. Environmental Regulation of Dredging and Disposal/ Placement d. Future Directions: Sustainable Dredging and Dredged Material Management
16.		Ujian Akhir Semester	

D. MATERI (BAHAN KAJIAN)

No	POKOK MATERI	SUB-MATERI
1	Pengenalan thd keselamatan dan resiko pencemaran lingkungan laut dan Annex I: Prevention of pollution by oil & protocol	International Convention for the Prevention of Pollution from Ships, 1973 , protocol 1978 , Protocol – I , Protocol 1997 Chapter 1 , Chapter 2, Chapter 3, Chapter 4
2	Annex I: Prevention of pollution by oil & protocol - lanjutan Annex II: Control of pollution by noxious liquid substances & protocol	Chapter 5 , Chapter 6, Chapter 7, Chapter 8, Chapter 9 Anex II : Chapter 1 , Chapter 2, Chapter 3, Chapter 4,
3	Annex II: Control of pollution by noxious liquid substances & protocol - lanjutan Annex III: Prevention of pollution by harmful substances in packaged form & protocol	Chapter 5 , Chapter 6, Chapter 7, Chapter 8 Anex - III Regulation 1; Regulation 2; Regulation 3 ;Regulation 4; Regulation 5;Regulation 6 ; Regulation 7; Regulation 8;
4	Annex IV: Prevention of pollution by sewage from ships & protocol Annex V: Prevention of pollution by garbage from ships & protocol	Chapter 1, Chapter 2, Chapter 3, Chapter 4, Chapter 5 annex V Regulation 1; Regulation 2; Regulation 3 ;Regulation 4; Regulation 5;Regulation 6 ; Regulation 7; Regulation 8; Regulation 9

No	POKOK MATERI	SUB-MATERI
5	Annex VI: Prevention of Air Pollution from Ship & protocol ; Shipping Marine Environment Protection	Chapter 1, Chapter 2, Chapter 3 ; Structure and State of the Shipping Sector ; Impacts of Shipping on the Marine Environment; Cumulative Effects; Costs of Environmental Degradation; International Agreements and Management requirements Regulation
6	Sustainable Shipping And Offshore Oil and Gas Production and Transportation	Introduction Sustainable Shipping and the International Community The International Legal Framework of Shipping Port State Control The Uncontrolled Spread of Non-native Aquatic Species Pollution Liability and Compensation Regimes Conclusion Introduction General Characteristics of Impacts Seismic Surveys Field Commissioning Drilling Operations Production Activity Tanker Transportation Transportation by Pipelines Decommissioning Oil Spills
7	Dredging for Navigation, for Environmental Cleanup, and for Sand/Aggregates	Introduction Dredging: Purposes, Equipment, and Material Transport Dredged Material Disposal and Beneficial Use Environmental Considerations and Protection of the Marine Environment Environmental Regulation of Dredging and Disposal/ Placement Future Directions: Sustainable Dredging and Dredged

No	POKOK MATERI	SUB-MATERI
		Material Management
8	UJIAN TENGAH SEMESTER	
9	Praktikum thd keselamatan dan resiko pencemaran lingkungan laut dan Annex I: Prevention of pollution by oil & protocol	Praktikum Protocol – I , Protocol 1997 a. Chapter 1 , b. Chapter 2, c. Chapter 3, d. Chapter 4
10	Praktikum Annex I: Prevention of pollution by oil & protocol - lanjutan Annex II: Control of pollution by noxious liquid substances & protocol	Praktikum annex – 1 ; a. Chapter 5 , b. Chapter 6, c. Chapter 7, d. Chapter 8, e. Chapter 9 Praktikum Anex II : a. Chapter 1 , b. Chapter 2, c. Chapter 3, d. Chapter 4,
11	Praktikum– Annex II: Control of pollution by noxious liquid substances & protocol - lanjutan Annex III: Prevention of pollution by harmful substances in packaged form & protocol	Praktikum annex – II a. Chapter 5 , b. Chapter 6, c. Chapter 7, d. Chapter 8 Praktikum Anex - III a. Regulation 1; b. Regulation 2; c. Regulation 3 ; d. Regulation 4; e. Regulation 5; f. Regulation 6 ;

No	POKOK MATERI	SUB-MATERI
		<ul style="list-style-type: none"> g. Regulation 7; h. Regulation 8;
12	Praktikum, Annex IV: Prevention of pollution by sewage from ships & protocol Annex V: Prevention of pollution by garbage from ships & protocol	Praktikum Anex - !V <ul style="list-style-type: none"> a. Chapter 1, b. Chapter 2, c. Chapter 3, d. Chapter 4, e. Chapter 5 Praktikum annex V <ul style="list-style-type: none"> a. Regulation 1; b. Regulation 2; c. Regulation 3 ; d. Regulation 4; e. Regulation 5; f. Regulation 6 ; g. Regulation 7; h. Regulation 8; i. Regulation 9
13	Praktikum Annex VI: Prevention of Air Pollution from Ship & protocol ; Shipping Marine Environment Protection	Praktikum <ul style="list-style-type: none"> a. Annex VI Chapter 1, Chapter 2, Chapter 3 ; b. Structure and State of the Shipping Sector ; c. Impacts of Shipping on the Marine Environment; d. Cumulative Effects; e. Costs of Environmental Degradation; f. International Agreements and Management requirements Regulation
14	Praktikum Sustainable Shipping And Offshore Oil and Gas Production and Transportation	Praktikum Sustainable Shipping and the International Community ; <ul style="list-style-type: none"> a. The International Legal Framework of Shipping : b. Port State Control :

No	POKOK MATERI	SUB-MATERI
		c. Pollution Liability and Compensation Regimes General Characteristics of Impacts d. Seismic Surveys e. Drilling Operations f. Tanker Transportation g. Transportation by Pipelines h. Oil Spills
15	Dredging for Navigation, for Environmental Cleanup, and for Sand/Aggregates	Praktikum a. Dredging: Purposes, Equipment, and Material Transport b. Dredged Material Disposal and Beneficial Use Environmental Considerations and Protection of the Marine Environment a. Environmental Regulation of Dredging and Disposal/ Placement b. Future Directions: Sustainable Dredging and Dredged Material Management
16	UJIAN AKHIR SEMESTER	

E. KEGIATAN PEMBELAJARAN (METODE)

1. **Ceramah**
2. **Diskusi**
3. **Tanya Jawab**
4. **Demonstrasi**
5. **Metode Latihan**
6. **Perancangan**
7. **Percobaan**
8. **Tim Teaching / Metode Mengajar Beregu**
9. **Kontekstual Teaching Learning**
10. **Simulasi**
11. **Studi Kasus**

12. Pembelajaran Kolaboratif
13. Pembelajaran Kooperatif
14. Pembelajaran Berbasis Proyek
15. Pembelajaran Berbasis Masalah
16. Pembelajaran Berbasis Layanan
17. Tanya Kelas
18. Tanya Jawab
19. Diskusi Kelompok
20. Memberikan Umpan Balik
21. Komunitas, Magang, Advokasi, Komunitas Pembelajaran

F. TUGAS (TAGIHAN)

1. Hasil tugas perorangan
2. Hasil Diskusi kelompok
3. Hasil tugas kelas

G. PENILAIAN

- **Metode:**
 1. Tes tertulis
 2. lisan
 3. Tanya jawab
 4. Tugas
 5. Observasi
 6. Partisipasi
 7. Unjuk Kerja
 8. Angket
- **Instrumen**
 1. Tes :
 - a. Soal Obyektif:

- 1) Benar Salah
- 2) Pilihan Ganda
- 3) Isian
- b. Soal Essay
- 2. Non Tes :
 - a. Lembar pengamatan
 - b. Lembar wawancara
 - c. Kuesioner
 - d. Cek list
 - e. Rating scale
 - f. Rubrik
 - g. Portofolio
 - h. Sosiometric
 - i. Dll
- **Komponen dan proporsi penilaian**
 - 1. Tugas : 25%
 - 2. UTS : 35%
 - 3. UAS : 40%
- **Kriteria penilaian / kelulusan**

Rentang Nilai Angka	Nilai Huruf	Bobot Nilai Huruf	Keterangan
80-100	A	4,00	Sangat Baik Sekali
70 - < 80	B+	3,50	Baik Sekali
65- < 70	B	3,00	Baik
60 - < 65	C+	2,50	Kurang
55 - < 60	C	2,00	Kurang sekali

45 - < 55	D	1,00	Sangat Kurang Sekali
00 - < 45	E	0	Gagal

H. PERATURAN (TATA TERTIB)

- 1. Mahasiswa/i hadir dalam perkuliahan tatap muka minimal 75 %.**
- 2. Setiap Mahasiswa/i harus aktif berpartisipasi dalam perkuliahan**
- 3. Dosen dan Mahasiswa/i tiba di kelas tepat waktu sesuai dengan waktu yang telah ditetapkan.**
- 4. Ada pemberitahuan dari Mahasiswa/i jika tidak hadir dalam perkuliahan tatap muka**
- 5. Saling menghargai & tidak membuat kegaduhan/gangguan/kerusakan dalam kelas**
- 6. Tidak boleh ada plagiat & bentuk-bentuk pelanggaran norma lainnya**

I. SUMBER (REFERENSI)

- 1. KUHP Perdata dan KUHP Pidana, KUHD**
- 2. UU No. 17/2008 tentang Pelayaran dan turunannya**
- 3. Konvensi Internasional terkait dengan pelayaran**
- 4. Buku-buku ilmiah yang terkait dengan pelayaran**

J. RINCIAN RENCANA KEGIATAN (SATUAN ACARA PERKULIAHAN)

SATUAN ACARA PERKULIAHAN

Minggu ke-	Kemampuan Akhir yang Diharapkan	Bahan Kajian	Metode Pembelajaran	Waktu	Pengalaman Belajar Mahasiswa	Kriteria dan Indikator Penilaian	Bobot Nilai
1	Pengenalan thd keselamatan dan resiko pencemaran lingkungan laut dan Annex I: Prevention of pollution by oil & protocol	International Convention for the Prevention of Pollution from Ships, 1973 , protocol 1978 , Protocol – I , Protocol 1997 Chapter 1 , Chapter 2, Chapter 3, Chapter 4	Tatap Muka OHP	3x50	Presentasi Tanya jawab	Mahasiswa dapat memahami prinsip - prinsip pencegahan pencemaran laut berdasarkan International Convention for the Prevention of Pollution from Ships, 1973 , protocol 1978 , Protocol – I , Protocol 1997 Chapter 1 , Chapter 2, Chapter 3, Chapter 4	1/14 x 10%
2	Annex I: Prevention of pollution by oil & protocol - lanjutan Annex II: Control of pollution by noxious liquid substances & protocol	Chapter 5 , Chapter 6, Chapter 7, Chapter 8, Chapter 9 Anex II : Chapter 1 , Chapter 2, Chapter 3, Chapter 4,	Tatap Muka OHP	3x50	Presentasi Tanya jawab	Mahasiswa dapat memahami pencegahan pencemaran oleh minyak pada Chapter 5 , Chapter 6, Chapter 7, Chapter 8, Chapter 9 Dan pencemaran cairan beracun pada Chapter 1 , Chapter 2, Chapter 3, Chapter 4	1/14 x 10%
3	Annex II: Control of pollution by noxious liquid substances & protocol - lanjutan Annex III: Prevention of pollution by harmful substances	Chapter 5 , Chapter 6, Chapter 7, Chapter 8 Anex - III Regulation 1; Regulation 2; Regulation 3 ;Regulation 4; Regulation 5;Regulation 6 ;	Tatap Muka OHP	3x50	Presentasi Tanya jawab	b. Mahasiswa mampu memahami pencemaran cairan beracun pada Chapter 5 , Chapter 6, Chapter 7, Chapter 8. c. Mahasiswa mampu memahami pencegahan pencemaran dari barang berbahaya dalam bentuk	1/14 x 10%

Minggu ke-	Kemampuan Akhir yang Diharapkan	Bahan Kajian	Metode Pembelajaran	Waktu	Pengalaman Belajar Mahasiswa	Kriteria dan Indikator Penilaian	Bobot Nilai
	in packaged form & protocol	Regulation 7; Regulation 8;				kemasaan Regulation 1; Regulation 2; Regulation 3 ;Regulation 4; Regulation 5; Regulation 6 ; Regulation 7; Regulation 8;	
4	Annex IV: Prevention of pollution by sewage from ships & protocol Annex V: Prevention of pollution by garbage from ships & protocol	Chapter 1, Chapter 2, Chapter 3, Chapter 4, Chapter 5 annex V Regulation 1; Regulation 2; Regulation 3 ;Regulation 4; Regulation 5; Regulation 6 ; Regulation 7; Regulation 8; Regulation 9	Tatap Muka OHP	3x50	Presentasi Tanya jawab	Mahasiswa mampu memahami pencegahan polusi kotoran manusia dari kapal Chapter 1, Chapter 2, Chapter 3, Chapter 4, Chapter 5 annex V Regulation 1; Regulation 2; Regulation 3 ;Regulation 4; Regulation 5;Regulation 6 ; Regulation 7; Regulation 8; Regulation 9	1/14 x 10%
5	Annex VI: Prevention of Air Pollution from Ship & protocol ; Shipping Marine Environment Protection	Chapter 1, Chapter 2, Chapter 3 ; Structure and State of the Shipping Sector ; Impacts of Shipping on the Marine Environment;	Tatap Muka OHP	3x50	Presentasi Tanya jawab	c. Mahasiswa dapat mengerti tentang polusi udara dari kapal Chapter 1, Chapter 2, Chapter 3 ; d. Mahasiswa memahami Perlindungan lingkungan laut berdasarkan	1/14 x 10%

Minggu ke-	Kemampuan Akhir yang Diharapkan	Bahan Kajian	Metode Pembelajaran	Waktu	Pengalaman Belajar Mahasiswa	Kriteria dan Indikator Penilaian	Bobot Nilai
		Cumulative Effects; Costs of Environmental Degradation; International Agreements and Management requirements Regulation				Structure and State of the Shipping Sector ; Impacts of Shipping on the Marine Environment; Cumulative Effects; Costs of Environmental Degradation; International Agreements and Management requirements Regulation	
6	Sustainable Shipping And Offshore Oil and Gas Production and Transportation	Introduction Sustainable Shipping and the International Community The International Legal Framework of Shipping Port State Control The Uncontrolled Spread of Non-native Aquatic Species Pollution Liability and Compensation Regimes Conclusion Introduction	Tatap Muka OHP	3x50	Presentasi Tanya jawab	Mahasiswa mampu memahami keberlanjutan pelayaran dan produksi minyak dan gas serta transportasinya dalam hal Pollution Liability and Compensation Regimes Conclusion Introduction General Characteristics of Impacts Seismic Surveys Field Commissioning Drilling Operations Production Activity Tanker Transportation Transportation by Pipelines Decommissioning	1/14 x 10%

Minggu ke-	Kemampuan Akhir yang Diharapkan	Bahan Kajian	Metode Pembelajaran	Waktu	Pengalaman Belajar Mahasiswa	Kriteria dan Indikator Penilaian	Bobot Nilai
		General Characteristics of Impacts Seismic Surveys Field Commissioning Drilling Operations Production Activity Tanker Transportation Transportation by Pipelines Decommissioning Oil Spills				Oil Spills	
7	Dredging for Navigation, Environmental Cleanup, and Sand/Aggregates	Introduction Dredging: Purposes, Equipment, and Material Transport Dredged Material Disposal and Beneficial Use Environmental Considerations and Protection of the Marine Environment Environmental Regulation of Dredging and Disposal/ Placement	Tatap Muka OHP	3x50	Presentasi Tanya jawab	Mahasiswa dapat mengerti tentang Dredging: Purposes, Equipment, and Material Transport Dredged Material Disposal and Beneficial Use Environmental Considerations and Protection of the Marine Environment Environmental Regulation of Dredging and Disposal/ Placement Future Directions: Sustainable Dredging and Dredged Material Management	1/14 x 10%

Minggu ke-	Kemampuan Akhir yang Diharapkan	Bahan Kajian	Metode Pembelajaran	Waktu	Pengalaman Belajar Mahasiswa	Kriteria dan Indikator Penilaian	Bobot Nilai
		Future Directions: Sustainable Dredging and Dredged Material Management					
8	UJIAN TENGAH SEMESTER (UTS)						
9	Praktikum thd keselamatan dan resiko pencemaran lingkungan laut dan Annex I: Prevention of pollution by oil & protocol	Praktikum Protocol – I , Protocol 1997 e. Chapter 1 , f. Chapter 2, g. Chapter 3, h. Chapter 4	Praktikum Laptop	3x50	Presentasi Tanya jawab Laporan praktikum	Mahasiswa dapat mempraktekkan prinsip - prinsip pencegahan resiko pencemaran lingkungan laut berdasarkan konvensi marpol Protocol – I , Protocol 1997 e. Chapter 1 , f. Chapter 2, g. Chapter 3, h. Chapter 4	1/14 x 10%
10	Praktikum Annex I: Prevention of pollution by oil & protocol - lanjutan Annex II: Control of pollution by noxious liquid substances & protocol	Praktikum annex – 1 ; f. Chapter 5 , g. Chapter 6, h. Chapter 7, i. Chapter 8, j. Chapter 9 Praktikum Anex II : e. Chapter 1 , f. Chapter 2, g. Chapter 3, h. Chapter 4,	Praktikum Laptop	3x50	Presentasi Tanya jawab Laporan praktikum	Mahasiswa dapat melakukan praktek: c. Pencegahan pencemaran oleh minyak dari kapal 6) Chapter 5 , 7) Chapter 6, 8) Chapter 7, 9) Chapter 8, 10)Chapter 9 d. Pencegahan pencemaran cairan beracun	1/14 x 10%

Minggu ke-	Kemampuan Akhir yang Diharapkan	Bahan Kajian	Metode Pembelajaran	Waktu	Pengalaman Belajar Mahasiswa	Kriteria dan Indikator Penilaian	Bobot Nilai
						5) Chapter 1 , 6) Chapter 2, 7) Chapter 3, 8) Chapter 4,	
11	Praktikum– Annex II: Control of pollution by noxious liquid substances & protocol - lanjutan Annex III: Prevention of pollution by harmful substances in packaged form & protocol	Praktikum annex – II e. Chapter 5 , f. Chapter 6, g. Chapter 7, h. Chapter 8 Praktikum Anex - III i. Regulation 1; j. Regulation 2; k. Regulation 3 ; l. Regulation 4; m. Regulation 5; n. Regulation 6 ; o. Regulation 7; p. Regulation 8;	Praktikum Laptop	3x50	Presentasi Tanya jawab Laporan praktikum	Mahasiswa dapat mempraktekkan c. Pencegahan pencemaran cairan beracun 5) Chapter 5 , 6) Chapter 6, 7) Chapter 7, 8) Chapter 8 d. Pencegahan pencemaran dari barang berbahaya dalam kemasan 9) Regulation 1; 10)Regulation 2; 11)Regulation 3 ; 12)Regulation 4; 13)Regulation 5; 14)Regulation 6 ; 15)Regulation 7; 16)Regulation 8;	1/14 x 10%
12	Praktikum, Annex IV: Prevention of pollution by sewage from ships & protocol Annex V: Prevention of pollution by garbage	Praktikum Anex - IV f. Chapter 1, g. Chapter 2, h. Chapter 3, i. Chapter 4, j. Chapter 5 Praktikum annex V	Praktikum Laptop	3x50	Presentasi Tanya jawab Laporan praktikum	Mahasiswa dapat melakukan praktek c. Pencegahan pencemaran kotoran manusia dari kapal 6) Chapter 1, 7) Chapter 2,	1/14 x 10%

Minggu ke-	Kemampuan Akhir yang Diharapkan	Bahan Kajian	Metode Pembelajaran	Waktu	Pengalaman Belajar Mahasiswa	Kriteria dan Indikator Penilaian	Bobot Nilai
	from ships & protocol	<ul style="list-style-type: none"> j. Regulation 1; k. Regulation 2; l. Regulation 3 ; m. Regulation 4; n. Regulation 5; o. Regulation 6 ; p. Regulation 7; q. Regulation 8; r. Regulation 9 				<ul style="list-style-type: none"> 8) Chapter 3, 9) Chapter 4, 10)Chapter 5 d. Pencegahan pencemaran dari sampah diatas kapal <ul style="list-style-type: none"> 10)Regulation 1; 11)Regulation 2; 12)Regulation 3 ; 13)Regulation 4; 14)Regulation 5; 15)Regulation 6 ; 16)Regulation 7; 17)Regulation 8; 18)Regulation 9 	
13	Praktikum Annex VI: Prevention of Air Pollution from Ship & protocol ; Shipping Marine Environment Protection	Praktikum <ul style="list-style-type: none"> g. Annex VI Chapter 1, Chapter 2, Chapter 3 ; h. Structure and State of the Shipping Sector ; i. Impacts of Shipping on the Marine Environment; j. Cumulative Effects; 	Praktikum Laptop	3x50	Presentasi Tanya jawab Laporan praktikum	Mahasiswa mampu mempraktekkan: <ul style="list-style-type: none"> c. Pencegahan Pencemaran udara dari kapal yang terdiri atas : <ul style="list-style-type: none"> 4) Annex VI Chapter 1, 5) Chapter 2, 6) Chapter 3 d. Perlindungan Lingkungan Laut pada kegiatan pelayaran yang terdiri atas : <ul style="list-style-type: none"> 6) Structure and State of the Shipping Sector ; 	1/14 x 10%

Minggu ke-	Kemampuan Akhir yang Diharapkan	Bahan Kajian	Metode Pembelajaran	Waktu	Pengalaman Belajar Mahasiswa	Kriteria dan Indikator Penilaian	Bobot Nilai
		<ul style="list-style-type: none"> k. Costs of Environmental Degradation; l. International Agreements and Management requirements Regulation 				<ul style="list-style-type: none"> 7) Impacts of Shipping on the Marine Environment; 8) Cumulative Effects; 9) Costs of Environmental Degradation; 10) International Agreements and Management requirements Regulation 	
14	Praktikum Sustainable Shipping And Offshore Oil and Gas Production and Transportation	Praktikum Sustainable Shipping and the International Community ; <ul style="list-style-type: none"> i. The International Legal Framework of Shipping : j. Port State Control : k. Pollution Liability and Compensation RegimesGeneral Characteristics of Impacts l. Seismic Surveys m. Drilling Operations n. Tanker Transportation o. Transportation by Pipelines 	Praktikum Laptop	3x50	Presentasi Tanya jawab Laporan praktikum	Mahasiwa dapat melakukan Praktiku tentang keberlanjutan usaha pelayaran yang terdiri atas : <ul style="list-style-type: none"> i. The International Legal Framework of Shipping : j. Port State Control : k. Pollution Liability and Compensation RegimesGeneral Characteristics of Impacts l. Seismic Surveys m. Drilling Operations n. Tanker Transportation o. Transportation by Pipelines p. Oil Spills 	1/14 x 10%

Minggu ke-	Kemampuan Akhir yang Diharapkan	Bahan Kajian	Metode Pembelajaran	Waktu	Pengalaman Belajar Mahasiswa	Kriteria dan Indikator Penilaian	Bobot Nilai
		p. Oil Spills					
15	Dredging for Navigation, Environmental Cleanup, and for Sand/Aggregates	Praktikum c. Dredging: Purposes, Equipment, and Material Transport d. Dredged Material Disposal and Beneficial Use Environmental Considerations and Protection of the Marine Environment c. Environmental Regulation of Dredging and Disposal/ Placement d. Future Directions: Sustainable Dredging and Dredged Material Management	Praktikum Laptop	3x50	Presentasi Tanya jawab Laporan praktikum	Mahasiswa dapat melakukan praktek tentang : c. Dredging: Purposes, Equipment, and Material Transport d. Dredged Material Disposal and Beneficial Use Environmental Considerations and Protection of the Marine Environment e. Environmental Regulation of Dredging and Disposal/ Placement f. Future Directions: Sustainable Dredging and Dredged Material Management	1/14 x 10%
16	UJIAN AKHIR SEMESTER (UAS)						

RANCANGAN TUGAS DAN LATIHAN

Minggu Ke	Nama Tugas	Sub-CPMK	Penugasan	Ruang Lingkup	Cara Pengerjaan	Batas Waktu	Luaran Tugas yang Dihasilkan
1,2,3,4 6,7	PR	1, 2, 3, 4, 5,6	Mengerjakan latihan soal di buku sesuai materi di setiap pertemuan	Hanya mengerjakan soal-soal yang ditugaskan	Dikerjakan secara individu	1 minggu	Lembar jawaban dikumpulkan melalui platform daring
1-14	Tugas Kelompok	1,2,3,4,5,6	Mahasiswa secara berkelompok menyelesaikan kasus terkait dengan	Terbatas pada kasus dan materi yang diberikan dosen	<i>Small group discussion</i> (2-3 orang) <i>Problem solving</i> kasus perencanaan keuangan	1 minggu	Makalah dikumpulkan melalui platform daring
10	Praktikum	2, 5, 6	Mengerjakan praktikum yang diberikan. 1. Praktikum 2. Praktikum Dst	Mengerjakan praktikum terkait dengan penerapan konsep	Tugas dikerjakan secara individu atas kasus yang diberikan oleh dosen	1 hari	Laporan praktikum

KRITERIA PENILAIAN (EVALUASI HASIL PEMBELAJARAN)

Bentuk Evaluasi	Sub-CPMK	Instrumen/ Jenis Asesmen	Frekuensi	Bobot Evaluasi (%)
Tugas Kelompok		Presentasi Problem Solving Studi	1 kali	15%
Tugas Individu dan PR		Latihan dengan ...	14 kali	10%
UTS		Sumatif – Soal Esai	1 kali	35%
UAS		Sumatif – Soal Esai	1 kali	40%
Total				100%

Kriteria Penilaian/Kelulusan

Konversi nilai akhir mahasiswa berdasarkan ketentuan yang berlaku di Sekolah Tinggi Ilmu Pelayaran. Konversi nilai tersebut adalah:

Rentang Nilai Angka	Nilai Huruf	Bobot Nilai Huruf	Keterangan
80-100	A	4,00	Sangat Baik Sekali
70 - < 80	B+	3,50	Baik Sekali
65- < 70	B	3,00	Baik
60 - < 65	C+	2,50	Kurang
55 - < 60	C	2,00	Kurang sekali
45 - < 55	D	1,00	Sangat Kurang Sekali
00 - < 45	E	0	Gagal

Rubrik Penilaian:

Rubrik ini digunakan sebagai pedoman untuk menilai atau memberi tingkatan dari hasil kinerja mahasiswa. Rubrik biasanya terdiri dari kriteria penilaian yang mencakup dimensi/aspek yang dinilai berdasarkan indikator capaian pembelajaran. Rubrik penilaian ini berguna untuk memperjelas dasar dan aspek penilaian sehingga mahasiswa dan dosen bisa berpedoman pada hal yang sama mengenai tuntutan kinerja yang diharapkan. Dosen dapat memilih jenis rubrik yang sesuai dengan asesmen yang diberikan. Rubrik ini dapat digunakan melalui fitur *Assignment* dalam, dengan mengaktifkan fitur *Rubric* pada bagian *Grading Method*.

Kriteria	Level pencapaian 1 55	Level pencapaian 2 75	Level pencapaian 3 83	Level pencapaian 4 90
Aspek kemampuan menjelaskan konsep-konsep	Menjelaskan $\leq 60\%$	Menjelaskan 60% - <70%	Menjelaskan 70% - 85%	Menjelaskan secara lengkap dan benar
Aspek kemampuan menganalisis implemementasi penerapan	Menghitung dengan hasil benar $\leq 60\%$	Menghitung dengan hasil benar 60% - <70%	Menghitung dengan hasil benar 70% - 85%	Menghitung dengan hasil benar 100%
Aspek kemampuan memberikan alternatif solusi sebagai dasar pengambilan keputusan manajemen berdasarkan kasus yang diberikan	Memberikan alternatif solusi yang benar $\leq 60\%$	Memberikan alternatif solusi yang benar 60% - <70%	Memberikan alternatif solusi yang benar 70% - 85%	Memberikan alternatif solusi yang benar 100%

PERATURAN (TATA TERTIB)

1. Mahasiswa/i hadir dalam perkuliahan tatap muka minimal 75%.
2. Setiap Mahasiswa/i harus aktif berpartisipasi dalam perkuliahan
3. Dosen dan Mahasiswa/i tiba di kelas tepat waktu sesuai dengan waktu yang telah ditetapkan.
4. Ada pemberitahuan dari Mahasiswa/i jika tidak hadir dalam perkuliahan tatap muka
5. Saling menghargai & tidak membuat kegaduhan/gangguan/kerusakan dalam kelas
6. Tidak boleh ada plagiat & bentuk-bentuk pelanggaran norma lainnya

Jakarta, Oktober 2024
Ketua Program Studi
Teknik Keselamatan dan Resiko



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