Curriculum Policy of the Faculty of Maritime Sciences

【Liberal Arts Core Courses】

Subject (part 1 of 4): Human Development and Thought / Literature and Art / History and Culture

Degree Awarding Policy of Kobe University	Study goals	Human Development and Thought						Literature and Art					History and Culture						
		Philosophy	Action and Norm	Logic	Psychology/Mind and Behavior	Education/Education and Human Development	Ethics of Science and Technology	Japanese Literature	A Comparative Study of World Literature	Language and Culture	Traditional Arts	Art and Culture	Japanese History	European and American History	Asian History	Archaeology	History and Today	History of Science and Technology	History of Art
	Term*	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ
Enriched Humanity	To acquire rich education	◎	◎	◎	◎	○		◎	◎	○	◎	◎	◎	◎	◎	◎	◎	◎	◎
	To acquire high ethical standards					○	◎									○			
	To acquire a good balance of intellect, reason and emotion	○		○	○	◎		○	○	○	○	○	○	○		○	○	○	○
	To be able to act as an independent member of society				○		◎						○	○		○	○	○	
Creativity	To be able to critically reexamine traditional thoughts and methodologies	◎	○	○				◎	○	○	◎	○	◎	◎		◎	◎		◎
	To be able to set innovative themes	○			○	◎				○			○	○			○	○	
	To be able to solve the issues in creative manner			○		○	○			○		○	○	○			○		○
International Awareness	To respect diverse sense of values		○		○			◎	○	◎	○	○	◎	◎	○	◎	◎	◎	○
	To acquire a deep understanding of other cultures		○					○	◎	◎		◎	○	◎	◎	○	◎		◎
	To display excellent communication skills			○			○			◎									
Expertise	To acquire expertise based on broad/rounded knowledge	○	○	○	○	◎	○	○	○	○	○	○	○	○	○	○	○	◎	◎
	To acquire specialized skills					○													○

Subject (part 2 of 4): Human Beings and Society / Law and Politics / Economy and Society

Degree Awarding Policy of Kobe University	Study goals	Human Beings and Society								Law and Politics					Economy and Society			
		Sociology	History of Social Ideas	Geography	Cultural Anthropology	Studies in Contemporary Society	Transborder Culture	Living Environment and Technology	School Education and Society	Introduction to Law	Social Life and Law	State and Law	Introduction to Politics	Modern Society and Politics	Introduction to Economics	The Development of Economic Society	Contemporary Economies	Business and Economy
	Term*	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ
Enriched Humanity	To acquire rich education	◎	○	○	○	○	◎	○	○	◎	○	◎	◎	○	◎	◎	◎	○
	To acquire high ethical standards		◎				○	○		○		○						
	To acquire a good balance of intellect, reason and emotion			○		○	○	○			◎		○					
	To be able to act as an independent member of society						○							◎	○		○	◎
Creativity	To be able to critically reexamine traditional thoughts and methodologies	○	○	◎	○	○	○	○	○									
	To be able to set innovative themes						○	○										
	To be able to solve the issues in creative manner						◎									○	○	○
International Awareness	To respect diverse sense of values	○	○	○	◎	○	◎	○	○							○	○	○
	To acquire a deep understanding of other cultures			○	◎	○	○		○									
	To display excellent communication skills						○											
Expertise	To acquire expertise based on broad/rounded knowledge	○	◎	○			◎								◎	○	○	○
	To acquire specialized skills																○	

Subject (part 3 of 4): Mathematics and Information / Material and Technology

Degree Awarding Policy of Kobe University	Study goals	Mathematics and Information						Material and Technology							
		Mathematical Structures	Mathematical Phenomena	The World of Mathematics	Cultural Studies of Shapes	Science of Shapes	Current Topics in Information Science	Elementary Particles and the Universe	Material Physics	World of Molecules	Constitution of Substance	Natural Resources, Materials and Energy	Science and Technology for Creation of the World	Basic Technology for Intelligent Society	Origin Evolution and Diversity of Planetary System
	Term*	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ
Enriched Humanity	To acquire rich education	◎	◎	◎	◎		◎	◎	◎	◎	◎	◎	◎	○	◎
	To acquire high ethical standards											◎	○		
	To acquire a good balance of intellect, reason and emotion	○	○	○		◎		○	○	○	○		○		
	To be able to act as an independent member of society						○			○	○		◎		
Creativity	To be able to critically reexamine traditional thoughts and methodologies											○	○		
	To be able to set innovative themes				○								○		
	To be able to solve the issues in creative manner	○	○	○		○		○	○			○	◎		
International Awareness	To respect diverse sense of values											◎	○		○
	To acquire a deep understanding of other cultures											○			
	To display excellent communication skills														
Expertise	To acquire expertise based on broad/rounded knowledge							◎	◎			◎	◎	◎	
	To acquire specialized skills											○			

Subject (part 4 of 4): Life and Environment / General Culture

Degree Awarding Policy of Kobe University	Study goals	Life and Environment								General Culture									
		Structure and Functions of Human Body	Human Health and Disease	Molecular and Cellular Biology	Biodiversity and Evolution	Ecology and Natural Environment	Biological Resources and Agriculture	Food and Health	Earth and Planetary Sciences	Human Rights and Society	Forefront of Research at Kobe University	History of Kobe University	Frontiers of Social Science	Inducement to Maritime	Introduction to Inland Sea Environment	International Cooperation: Problems and Solutions	The Great Hanshin-Awaji Earthquake	Introduction of Environmentology	ESD Basic (Education for Sustainable Development)
	Term*	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ
Enriched Humanity	To acquire rich education	○	○	◎	◎	◎	○	○	◎	○	○	○	○	○	○	○	○	○	○
	To acquire high ethical standards	○	○	○	○	○		○		◎				○	○		○	○	○
	To acquire a good balance of intellect, reason and emotion			○	○	○				○	○	○	○	◎	◎	○	○	○	○
	To be able to act as an independent member of society			○	○	○				○						○			
Creativity	To be able to critically reexamine traditional thoughts and methodologies			○	○	○				◎	○	○	◎	○	○	◎	◎	○	○
	To be able to set innovative themes			○	○	○					○	○	○			○	○	○	○
	To be able to solve the issues in creative manner									○	○	○	○	○	○	○		○	○
International Awareness	To respect diverse sense of values			◎	◎	◎	○		○	○			○			○		○	○
	To acquire a deep understanding of other cultures						○			○			○			○		○	○
	To display excellent communication skills													○	○				
Expertise	To acquire expertise based on broad/rounded knowledge	◎	◎	○	○	○	◎	◎			○	○	○			○	○	○	○
	To acquire specialized skills	◎	◎	○	○	○	◎	◎			○	○		○	○		◎	◎	◎

Note: a double circle shows the deepest relationship between subject and a leaning target, and a circle shows a deep relationship.

Note: Roman numbers indicate semester: Ⅰ, the first semester of a first-year student; Ⅱ, the second semester of a first-year student; Ⅲ, the first semester of a second-year student; Ⅳ, the second semester of a second-year student; Ⅴ, the first semester of a third-year student; Ⅵ, the second semester of a third-year student; Ⅶ, the first semester of a fourth-year student; and Ⅷ, the second semester of a fourth-year student.

Curriculum Policy of the Faculty of Maritime Sciences

【Foreign Language Courses/Information Science Courses/Health and Physical Education Courses/Common Basic Courses for Majors】

Degree Awarding Policy of Kobe University	Study goals	Subject																		
		Foreign Language Courses					Information Science Course	Health and Physical Education Courses		Courses for Qualifications and Licenses	Common Basic Courses for Majors							Other Courses deemed requisite		
		English Aural/Oral Ⅰ・Ⅱ English Reading Ⅰ・Ⅱ	German ⅠA・ⅠB・ⅡA・ⅡB	French ⅠA・ⅠB・ⅡA・ⅡB	Chinese ⅠA・ⅠB・ⅡA・ⅡB	Russian ⅠA・ⅠB・ⅡA・ⅡB	Introduction to Computer Literacy	Health Sciences	Sports and Fitness Course Ⅰ・Ⅱ	The Japanese Constitution	Linear Algebra 1・2	Calculus 1・2	Mathematical Statistics	Physics B1・B2・B3	Physics C1・C2・C3	Basic Physical Chemistry	Basic Organic Chemistry	Current Issues Ⅰ (Introduction to Gender Equality)	Current Issues Ⅱ (Career and Learning)	Current Issues Ⅱ (Industry and Society)
	Term*	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ	Ⅱ	Ⅰ・Ⅱ	Ⅳ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅱ	Ⅰ・Ⅱ	Ⅰ・Ⅱ	Ⅰ	Ⅱ			
Enriched Humanity	To acquire rich education	◎	○	○	○	○		◎	◎		○	○	○	◎	◎	○	○	○	○	○
	To acquire high ethical standards						◎			○								○	○	○
	To acquire a good balance of intellect, reason and emotion	◎																○	○	○
	To be able to act as an independent member of society						◎												○	○
Creativity	To be able to critically reexamine traditional thoughts and methodologies																	○		
	To be able to set innovative themes	○							○				○	○	○	○	○	◎	◎	◎
	To be able to solve the issues in creative manner							○	○		○	○	○	○		○	○	○	○	○
International Awareness	To respect diverse sense of values	◎	○	○	○	○												○	○	○
	To acquire a deep understanding of other cultures	◎	○	○	○	○													○	○
	To display excellent communication skills	◎	◎	◎	◎	◎	○												○	○
Expertise	To acquire expertise based on broad/rounded knowledge	◎	○	○	○	○				◎	◎	◎	◎	◎	○	◎	◎	○	○	○
	To acquire specialized skills										◎	◎	◎		◎	◎	◎			

Note: Roman numbers indicate semester: I, the first semester of a first-year student; II, the second semester of a first-year student; III, the first semester of a second-year student; IV, the second semester of a second-year student; V, the first semester of a third-year student; VI, the second semester of a third-year student; VII, the first semester of a fourth-year stu and VIII, the second semester of a fourth-year student.

Curriculum Policy for the Faculty of Maritime Sciences

【Introductory Educational Subjects/Undergraduate Basic Subjects/Common Major Subjects】

Subject — Introductory Educational Subjects

Degree Awarding Policy of Kobe University	Study goals		Maritime Sports and Boat Handling	Aquatic Sports	Learn from the Sea	Computer Literacy	General Study 1	Communication English 1	Communication English 2
	Term*		Ⅰ	Ⅰ	Ⅱ	Ⅱ	Ⅱ	Ⅲ	Ⅳ
Enriched Humanity	Broad education	(acquisition of the required education of a university student)	◎	◎	◎	◎	◎	◎	◎
	Engineering ethics	(acquisition of a high ethical viewpoint of an engineer)			○	○	○		
	Leadership	(acquisition of an overall ability to involve actively in all fields)			○				
Creativity	Flexible thinking	(acquisition of an ability to think free from traditional thoughts and methodologies)	○		◎				
	Discovery and solution	(acquisition of an ability to discover and solve own issues)		○	○	△		◎	◎
	Planning	(acquisition of a planning ability of solution from various angles)	△	○				◎	◎
International Awareness	Communication	(acquisition of a conversation ability with understanding and respect for each other)	○	△				◎	◎
	Presentation	(acquisition of an accurate explainable ability of own opinion and an ability of gain the understanding of a person)				◎		◎	◎
	Cooperation	(acquisition of an ability to lead meaningful conclusion on each other, even if there are unfavorable conditions)	△	△				◎	◎
Expertise	Specialized knowledge	(acquisition of correct expertise in each special field)	○					△	△
	Technical skill	(acquisition of the technical skill required in each special field)				○			
	Application	(acquisition of an application ability using education and expertise freely)	△		○		○	△	△

Subject — Undergraduate Basic Subjects

Degree Awarding Policy of Kobe University	Study goals	General Study 2	General Study 3	Applied Mathematics 1	Applied Mathematics 2	Introduction to Applied Mechanics	Oceanography	Meteorology	Introduction to Transportation and the Environment	Introduction to the Study of Transportation	Introduction to Computer Sciences	Microeconomics	Macroeconomics	Economic Statistics	Basic Experiments of Maritime Science 1	Basic Experiments of Maritime Science 2	Leadership	On-board Training 1	On-board Seminar for Maritime Science	Introduction to Latest Marine Equipment and Technology
	Term*	Ⅲ	Ⅳ	Ⅲ	Ⅲ	Ⅲ	Ⅲ	Ⅲ	Ⅲ	Ⅲ	Ⅲ	Ⅲ	Ⅲ	Ⅳ	Ⅲ・Ⅳ	Ⅲ・Ⅳ	Ⅴ	Ⅰ	Ⅰ	Ⅵ
Enriched Humanity	Broad education	○	○			○	◎	◎	◎	◎	◎		◎	△			○	○	◎	○
	Engineering ethics					△	△				△						○		◎	
	Leadership																◎	△	◎	
Creativity	Flexible thinking	◎	◎	○	○		△		○		○		○	○			○		◎	
	Discovery and solution	◎	◎				△	○		◎			○	○	◎	◎	△	○	○	
	Planning	△	△	○	○		△			○	△		○	○			◎		○	
International Awareness	Communication								○								◎	◎	◎	
	Presentation	○	○	△	△			○		◎							△		△	
	Cooperation																◎	◎	◎	
Expertise	Specialized knowledge	○	○	◎	◎	◎	◎	◎		◎	○	○	◎	◎			○	○	○	◎
	Technical skill	○	○												◎	◎	◎	○	○	
	Application	○	○	○		○	△	○	○		△	◎	◎	◎			○	△	○	○

Subject — Common Major Subjects

Degree Awarding Policy of Kobe University	Study goals	Maritime International Law	International Radio Communication and Regulations at Sea	Satellite Oceanography	Coastal Oceanography	Chemical Oceanography	Materials and Environmental Engineering	Marine Environment Technology	Natural Energy Conversion Engineering	Economics of Maritime Industry	Safety Engineering	Marine Sanitation	Coastal Zone Environmental Chemistry	Maritime Labor Law	Special Study
	Term*	Ⅳ	Ⅴ・Ⅵ	Ⅵ	Ⅵ	Ⅶ	Ⅶ	Ⅶ	Ⅶ	Ⅶ	Ⅶ	Ⅶ	Ⅷ	Ⅷ	Ⅶ・Ⅷ
Enriched Humanity	Broad education	○		○	◎	○			○			◎	○	△	
	Engineering ethics	○	○	△	△				△		○	○		○	○
	Leadership	○	○									△		◎	△
Creativity	Flexible thinking	○	○	△	△	△			△	○		○		△	◎
	Discovery and solution	◎	△	△	△		△	○	△			○	○	△	◎
	Planning	◎		△	△							○		△	◎
International Awareness	Communication	◎	◎									△		△	○
	Presentation	◎	○									△		△	◎
	Cooperation	◎	△								△	△		○	○
Expertise	Specialized knowledge	◎	◎	◎	◎	◎	◎	○	◎	○	◎	◎	△	◎	◎
	Technical skill		◎	△	△				○			◎		△	◎
	Application	○	△	○	○		○	◎	◎	○		◎	◎	△	◎

Note: Roman numbers indicate semester: I, the first semester of a first-year student; II, the second semester of a first-year student; III, the first semester of a second-year student; IV, the second semester of a second-year student; V, the first semester of a third-year student; VI, the second semester of a third-year student; VII, the first semester of a fourth-year student; and VIII, the second semester of a fourth-year student.

Curriculum Policy for the Faculty of Maritime Sciences

【Major Subjects of Maritime Technology Management】

Subject – Maritime Safety and Technology Management Field

Degree Awarding Policy of Kobe University	Study goals		Maritime Management Science	Human Information Processing	Methods of Reliability Theory	Maintenance Metrology	Risk Management	Maritime Technical Evaluation Theory	Transportation Vehicle Engineering	Management of Technology Systems	Risk Analysis of Ship Handling	Risk Analysis of Ship Hull	Marine Casualties	Marine Traffic Safety Management	Ports and Harbors Design	Fleet Management System	Maritime Practical English	Introduction to Marine Environmental Management	Marine Environmental Life Engineering	Statistical Mathematics	Operations Research	Exercise in Information Processing
	Term*		V	VII	VI	V	VII	VI	V	VII	VI	VII	VII	VI	VII	VII	VI	V	V	IV	V	IV
Enriched Humanity	Broad education	(acquisition of the required education of a university student)	○	○		○	○	△	△				△	△			○			△	△	○
	Engineering ethics	(acquisition of a high ethical viewpoint of an engineer)	△	△			○			○	△	△	△					○				
	Leadership	(acquisition of an overall ability to involve actively in all fields)					△					△				◎	△					
Creativity	Flexible thinking	(acquisition of an ability to think free from traditional thoughts and methodologies)	◎	○		○		△			○					◎	△	△				△
	Discovery and solution	(acquisition of an ability to discover and solve own issues)	◎	○	△		○	△	△		○		○		○				○		○	○
	Planning	(acquisition of a planning ability of solution from various angles)	○			○	◎	○			○	○	○	◎	○	◎					◎	○
International Awareness	Communication	(acquisition of a conversation ability with understanding and respect for each other)		◎											△	○	◎					
	Presentation	(acquisition of an accurate explainable ability of own opinion and an ability of gain the understanding of a person)		○							△				△	○	◎					
	Cooperation	(acquisition of an ability to lead meaningful conclusion on each other, even if there are unfavorable conditions)									△	○			△	○	○					
Expertise	Specialized knowledge	(acquisition of correct expertise in each special field)		○	◎	◎	◎	◎	○	◎	◎		◎	◎	◎	◎		◎	△	◎		◎
	Technical skill	(acquisition of the technical skill required in each special field)		○		○		◎		○	○	◎	◎	○	○	◎						
	Application	(acquisition of an application ability using education and expertise freely)	○	△	○	◎	○	◎	◎	△	△	△	◎	○	△	◎		○	◎		○	○

Subject – Navigation Field

Degree Awarding Policy of Kobe University	Study goals		Fix and Sailing	Marine Electronics	Navigational Aids	Navigation Information	Celestial Navigation	Naval Architecture	Dynamics of Ship Motion	Ship Handling 1	Ship Handling 2	Marine Meteorology	Good Seamanship for Maritime Safety	Rules of the Maritime Road	Maritime Laws	Maritime English 1	Maritime English 2	Exercise in Navigation	Laboratory in Navigation 1	Laboratory in Navigation 2	Exercise 3 in Navigation	Ship Management Practice	Endowment Lectures on Current reality and Future of Maritime Industry World	Towards the Top Management of Maritime Industry World
	Term*		IV	IV	IV	VI	V	V	VI	IV	V	V	V	IV	VI	IV	V	V	V	VI	VI	V・VI・VII	V	VI
Enriched Humanity	Broad education	(acquisition of the required education of a university student)								○	△	○	○	△	○	○	○		○			◎		
	Engineering ethics	(acquisition of a high ethical viewpoint of an engineer)											○	△	△				△		△	◎		
	Leadership	(acquisition of an overall ability to involve actively in all fields)											◎		○				○		△	◎	○	◎
Creativity	Flexible thinking	(acquisition of an ability to think free from traditional thoughts and methodologies)						○					△		○	△	△		○			◎		◎
	Discovery and solution	(acquisition of an ability to discover and solve own issues)			○	○			○			○	○						◎		○	◎		◎
	Planning	(acquisition of a planning ability of solution from various angles)			○							△		○					◎		○	◎		◎
International Awareness	Communication	(acquisition of a conversation ability with understanding and respect for each other)											◎		◎	◎	◎					◎	○	○
	Presentation	(acquisition of an accurate explainable ability of own opinion and an ability of gain the understanding of a person)											△		○	◎	◎					◎	△	◎
	Cooperation	(acquisition of an ability to lead meaningful conclusion on each other, even if there are unfavorable conditions)														○	○		○		△	◎		○
Expertise	Specialized knowledge	(acquisition of correct expertise in each special field)	◎	◎	◎	◎	◎	◎	○	◎	◎	◎	◎	◎	◎	◎	◎	△	◎	◎	◎	◎	◎	
	Technical skill	(acquisition of the technical skill required in each special field)	○	○	△	△	○	○	◎	○	○		◎	◎	◎	○	○	◎	◎	○	◎	◎	○	
	Application	(acquisition of an application ability using education and expertise freely)	△	△	○		△			△	○	△	○	◎	○	○	○	○	◎	△	◎	◎	◎	◎

Subject – Engineering Field

Degree Awarding Policy of Kobe University	Study goals		Engineering Thermodynamics	General Electric Circuits	Naval Architecture	Strength of Materials	Fluid Mechanics	Control Theory	Heat Engine	Drawing Exercise	Heat Transfer	Manufacturing Processes	Propulsion Engineering	Fluid Machinery	Fuel・Combustion & Lubricating Theories	Electromagnetic Machinery	Exercise in Marine Engineering	Marine Engineering Laboratory	Management of Ship's Machinery	Manufacturing Practice	English for Marine Engineering	Ship Management Practice
	Term*		IV	IV	V	IV	IV	V	V	V	V	V	VI	VI	VI	V	VI	V・VI	VI	IV	VII	VII
Enriched Humanity	Broad education	(acquisition of the required education of a university student)	◎			○			△		○	△									○	◎
	Engineering ethics	(acquisition of a high ethical viewpoint of an engineer)				△				△									◎	△	◎	◎
	Leadership	(acquisition of an overall ability to involve actively in all fields)																	△		△	◎
Creativity	Flexible thinking	(acquisition of an ability to think free from traditional thoughts and methodologies)	○		○									○							○	◎
	Discovery and solution	(acquisition of an ability to discover and solve own issues)	△				△		○	○		△		○	△		△	△		○	○	◎
	Planning	(acquisition of a planning ability of solution from various angles)	△							○		○	△	○					△		○	◎
International Awareness	Communication	(acquisition of a conversation ability with understanding and respect for each other)																			◎	◎
	Presentation	(acquisition of an accurate explainable ability of own opinion and an ability of gain the understanding of a person)								◎											○	◎
	Cooperation	(acquisition of an ability to lead meaningful conclusion on each other, even if there are unfavorable conditions)																			○	◎
Expertise	Specialized knowledge	(acquisition of correct expertise in each special field)	◎	◎	◎	◎	◎	◎	◎	○	◎	◎	◎	◎	◎	◎	◎	◎	◎		△	◎
	Technical skill	(acquisition of the technical skill required in each special field)	△	○	○					○		○	△	◎		◎	◎	◎	◎	◎	○	◎
	Application	(acquisition of an application ability using education and expertise freely)	○	○		○	○	△	○	△	○	○	○	◎	○	○	○	○	○		○	◎

Note: Roman numbers indicate semester: I, the first semester of a first-year student; II, the second semester of a first-year student; III, the first semester of a second-year student; IV, the second semester of a second-year student;
V, the first semester of a third-year student; VI, the second semester of a third-year student; VII, the first semester of a fourth-year student; and VIII, the second semester of a fourth-year student.

Curriculum Policy for the Faculty of Maritime Sciences

【Major Subjects of Maritime Logistics Sciences)】

Subject — Trasportation Science Field

Degree Awarding Policy of Kobe University	Study goals		Transportation Economics	Cargo Management	Statistical Mathematics	Material Handling	Logistics Systems Planning	Maritime Cargo Transportation	Transportation Engineering for Dangerous Cargo	Behavior in Transportation	Exercises in Behavior in Transportation	International Transportation Economics	Strength of Materials for Packaging	Operations Research	Terminal Planning	Maritime Port Evaluation Theory	Transportation Planning	Material Chemistry	National and Regional Port Planning	Transportation Systems Analysis	Packaging Materials	Advanced Exercises in Systems Science	Science & Technology English	Lab in Maritime Transportation Systems	Ship Management Practice
	Term*		Ⅳ	Ⅳ	Ⅳ	Ⅳ	Ⅳ	Ⅳ	Ⅳ	Ⅳ	Ⅴ	Ⅴ	Ⅴ	Ⅴ	Ⅴ	Ⅴ	Ⅴ	Ⅴ	Ⅵ	Ⅵ	Ⅵ	Ⅶ	Ⅶ	Ⅴ・Ⅵ	Ⅵ
Enriched Humanity	Broad education	(acquisition of the required education of a university student)	△		△		○			○		△	○	△		○			◎			○		○	
Enriched Humanity	Engineering ethics	(acquisition of a high ethical viewpoint of an engineer)		△				△		○			△				○			○		○			
Enriched Humanity	Leadership	(acquisition of an overall ability to involve actively in all fields)																				○			◎
Creativity	Flexible thinking	(acquisition of an ability to think free from traditional thoughts and methodologies)	○			○				○	○	○										○			
Creativity	Discovery and solution	(acquisition of an ability to discover and solve own issues)	○	○			◎	○		◎		○		○			◎		◎	◎		○			◎
Creativity	Planning	(acquisition of a planning ability of solution from various angles)	○				○				◎	○		◎		○	○		○	○		○		○	○
International Awareness	Communication	(acquisition of a conversation ability with understanding and respect for each other)																	○			◎	○		○
International Awareness	Presentation	(acquisition of an accurate explainable ability of own opinion and an ability of gain the understanding of a person)															○		○	○		△	○		
International Awareness	Cooperation	(acquisition of an ability to lead meaningful conclusion on each other, even if there are unfavorable conditions)																				◎			○
Expertise	Specialized knowledge	(acquisition of correct expertise in each special field)	◎	○	◎	○	◎	○	◎		○	◎	◎		◎	○		◎	◎		◎	△		○	○
Expertise	Technical skill	(acquisition of the technical skill required in each special field)		◎		◎		◎			○				○	○	◎		◎	◎		△	◎	○	
Expertise	Application	(acquisition of an application ability using education and expertise freely)	◎	○	○	△	○	○				◎	○	○		○		◎	◎		○	○		◎	◎

Subject — Intelligent Traffic Field

Degree Awarding Policy of Kobe University	Study goals		Information Processing	Discrete Mathematics	Ship's Navigation	Outline of Maritime Engineering	Introduction to System Technologies	Computer System	Program Design	Exercises in Program Design	Marine Information Analysis	Meteorological Information Analysis	Ocean Instrumentation	Ship's Navigation System	Advanced Information Processing	Introduction to Artificial Intelligence	Marine Pollution	Management of Chemical Substances at the Sea	Marine Communication Systems	Theory of Communication Networks	Introduction of Marine Transportation System
	Term*		Ⅳ	Ⅳ	Ⅳ	Ⅳ	Ⅳ	Ⅴ	Ⅴ	Ⅴ	Ⅴ	Ⅴ	Ⅴ	Ⅴ	Ⅵ	Ⅵ	Ⅵ	Ⅵ	Ⅵ	Ⅵ	Ⅵ
Enriched Humanity	Broad education	(acquisition of the required education of a university student)		△	○	◎	○	○			△	◎	○		○	△	○				
Enriched Humanity	Engineering ethics	(acquisition of a high ethical viewpoint of an engineer)			△		△				△										
Enriched Humanity	Leadership	(acquisition of an overall ability to involve actively in all fields)									△										
Creativity	Flexible thinking	(acquisition of an ability to think free from traditional thoughts and methodologies)				◎	○		△	△	△		△				△				
Creativity	Discovery and solution	(acquisition of an ability to discover and solve own issues)					△		△	△	○	○	◎		○			○			
Creativity	Planning	(acquisition of a planning ability of solution from various angles)	△	○		△	○	○	△	△	○		○		○	○				△	△
International Awareness	Communication	(acquisition of a conversation ability with understanding and respect for each other)									◎										
International Awareness	Presentation	(acquisition of an accurate explainable ability of own opinion and an ability of gain the understanding of a person)							△	△	◎	○									
International Awareness	Cooperation	(acquisition of an ability to lead meaningful conclusion on each other, even if there are unfavorable conditions)									◎										
Expertise	Specialized knowledge	(acquisition of correct expertise in each special field)	◎	◎	◎	△	○	◎	△	△	◎	○	◎	◎	◎	◎	◎	△	◎	◎	○
Expertise	Technical skill	(acquisition of the technical skill required in each special field)	○			△	○	◎	◎	◎	◎		△		◎				○		
Expertise	Application	(acquisition of an application ability using education and expertise freely)		○		○	△	○			◎	◎	○	△	◎	○		◎	△		◎

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Curriculum Policy of the Faculty of Maritime Sciences

【Major Subjects of Marine Engineering】

Subject — Marine Mechatronics Field

Degree Awarding Policy of Kobe University	Study goals		Electrical Circuit	Strength of Materials	Manufacturing Practice	Kinematics of Machine	Applied Mathematics 3	Applied Mathematics 4	Control Theory	Fluid Machinery	Electromagnetic Machinery	Mechanical Vibration	Manufacturing Processes	Machine Design	Electronic Circuits	Mechanical Drawing	Simulation Engineering	Electrical and Electronic Materials	Strength and Fracture of Materials	Metals and Alloys	Superconductor Technology	Power Electronics	Exercises in Marine-Mechatronics
	Term*		Ⅳ	Ⅳ	Ⅳ	Ⅳ	Ⅳ	Ⅳ	Ⅴ	Ⅵ	Ⅴ	Ⅴ	Ⅴ	Ⅴ	Ⅴ	Ⅵ	Ⅵ	Ⅵ	Ⅵ	Ⅵ	Ⅵ	Ⅶ	Ⅶ
Enriched Humanity	Broad education	(acquisition of the required education of a university student)		△								△	△				△		△	○			
	Engineering ethics	(acquisition of a high ethical viewpoint of an engineer)		△	△							△		△		△			△				
	Leadership	(acquisition of an overall ability to involve actively in all fields)																					
Creativity	Flexible thinking	(acquisition of an ability to think free from traditional thoughts and methodologies)				○	○	△		○													
	Discovery and solution	(acquisition of an ability to discover and solve own issues)			○					○			○			○	○			○			○
	Planning	(acquisition of a planning ability of solution from various angles)		△			△			○						○	○		△				△
International Awareness	Communication	(acquisition of a conversation ability with understanding and respect for each other)																					
	Presentation	(acquisition of an accurate explainable ability of own opinion and an ability of gain the understanding of a person)														◎	△						
	Cooperation	(acquisition of an ability to lead meaningful conclusion on each other, even if there are unfavorable conditions)																					
Expertise	Specialized knowledge	(acquisition of correct expertise in each special field)	◎	◎		◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	○	△	◎	◎	◎	◎	◎	◎
	Technical skill	(acquisition of the technical skill required in each special field)		◎	◎					◎	◎	◎	○		△	○	○	△	◎	◎	△	○	
	Application	(acquisition of an application ability using education and expertise freely)	△	○		△	○	○	△	◎	○		○	○	○	△	◎	○	○		○	◎	○

Subject — Eco-Energy Filed

Degree Awarding Policy of Kobe University	Study goals		Engineering Thermodynamics	Fluid Mechanics	Heat Transfer	Information Processing	Statistical Mechanics	Electromagnetic Energy	Physics of Atoms	Introductory Quantum Energetics	Internal Combustion Engines	Fuel・Combustion & Lubricating Theories	Atomic Energy Engineering	Materials Science	Thermofluid Analysis	Refrigeration Engineering	Energy Plant Engineering	Hydrogen Energy Engineering	Elementary Sub-atomic Science	Technical English	Exercises in Eco-Energy Engineering	Marine Engineering Laboratory	Ship Management Practice
	Term*		Ⅳ	Ⅳ	Ⅳ	Ⅳ	Ⅳ	Ⅴ	Ⅴ	Ⅳ	Ⅴ	Ⅴ	Ⅴ	Ⅵ	Ⅵ	Ⅵ	Ⅵ	Ⅵ	Ⅴ	Ⅶ	Ⅶ	Ⅴ・Ⅵ	Ⅵ
Enriched Humanity	Broad education	(acquisition of the required education of a university student)	△				○	○	○	○	△		◎	○	△		△	○	△	○			
	Engineering ethics	(acquisition of a high ethical viewpoint of an engineer)				△		○								○	△		○			△	
	Leadership	(acquisition of an overall ability to involve actively in all fields)						△														△	◎
Creativity	Flexible thinking	(acquisition of an ability to think free from traditional thoughts and methodologies)	△	○			○	△		◎					△			○	△	△			
	Discovery and solution	(acquisition of an ability to discover and solve own issues)	◎	○	△	○		△	○				○	○	◎	○		◎			○	○	◎
	Planning	(acquisition of a planning ability of solution from various angles)	○	○		○		△							○		△		△		△	△	○
International Awareness	Communication	(acquisition of a conversation ability with understanding and respect for each other)						△								○				○			○
	Presentation	(acquisition of an accurate explainable ability of own opinion and an ability of gain the understanding of a person)				○		△												◎			
	Cooperation	(acquisition of an ability to lead meaningful conclusion on each other, even if there are unfavorable conditions)						△															○
Expertise	Specialized knowledge	(acquisition of correct expertise in each special field)	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	○	◎	◎	◎	◎	◎	○	◎	◎	○
	Technical skill	(acquisition of the technical skill required in each special field)	○	◎		○		○	◎		○				○		◎			○		◎	
	Application	(acquisition of an application ability using education and expertise freely)	○	◎	○	△		○			○		○	◎	◎	○	○	○	◎	○	○	○	◎

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