Curriculum Policy of the Graduate School of System Informatics

In the Graduate School of System Informatics of Kobe University, both master's and doctoral programs provide outstanding education related to System Informatics to cultivate human resources in line with the degree awarding policy. Specifically, the systematic curriculum has been organized and executed as the following curriculum map shows.

Department of Systems Science , Graduate School of System Informatics
Curriculum organization and implementation system where the students can reach the learning goals set in the diploma policy of Faculty of Engineering by taking the provided courses

Degree Awarding Policy of the Faculty of Engineering	Learning goals	1st year of Master's Program		2nd year of Master's Program		Doctoral Program	
		1st semester	2nd semester	1st semester	2nd semester	1st semester	2nd semester
Enriched Humanity	To acquire high ethical standards		○Information Management				
	To acquire a solid understanding of the impact of science and technology on society				○Advanced Course on Network Computing		
	To acquire the ability to take appropriate action	○Advanced Course on Mathematical Statistics					
Creativity	To maintain the liberal and open-minded culture	○Specific Research ○Advanced Science and Technology I	○Specific Research	○Specific Research	○Specific Research	○Specific Research	○Specific Research
	To acquire the ability to resolve problems in a creative manner	○Advanced Course on Applied Mathematics ◎Data Mining ○Large-Scale Software Engineering ◎Computational Robotics ◎Computational Science Practice I ○Advanced Science and Technology I	○Advanced Course on Systems Planning ○Advanced Course on Algorithm ○Artificial Intelligence Construction ○Advanced Course on Computer Algebra	○Advanced Course on Programming Languages ○Information Visualization ○Algorithms for Parallel Computing	◎Computational Biology ◎Systems Mechanics		○Advanced Science and Technology II
International awareness	To acquire the ability to conduct exchanges with overseas partners	○Theory of Search and Learn	○Advanced Course on Multimedia ○Computational Science and Engineering I	○Computational Science and Engineering II			
	To acquire an understanding different cultures		○Computability Theory				
	To acquire the ability to exhibit individuality	○Advanced Topics in Software Science					○Advanced Science and Technology II
Expertise	To acquire highly specialized knowledge	◎Advanced Course on Systems Design ◎Computational Robotics ○Data Mining ◎Sensing Technology ○System Control Theory ○Processor Architecture	◎Advanced Course on System Structure Theory ○Artificial Intelligence Construction ○Advanced Course on Numerical Computation ○Advanced Course on Computer Algebra ◎Distributed Systems Theory ◎Biomechanics ◎Computational Science and Engineering I	◎Advanced Course on Systems Operation ◎Advanced Course on Programming Languages ◎Algorithms for Parallel Computing ○Information Visualization ◎Computational Science and Engineering II ○Dynamical Systems Theory	◎Advanced Course on Network Computing ○Mathematical Modeling ○Computational Physical Chemistry ◎Mixed Reality Systems		
	To acquire wide-ranging insights	◎Advanced Course on Mathematical Statistics ○Sensing Technology ○Computational Science Practice I ◎Advanced Science and Technology I ○Processor Architecture	○Advanced Course on Numerical Computation ◎Computational Science Practice II ○Biomechanics	◎Advanced Course on Systems Operation ◎Advanced Course on Mathematical Logic ○Dynamical Systems Theory	○Mathematical Modeling ○Computational Biology ○Computational Physical Chemistry ○Systems Mechanics ◎Medical Information Systems		
	To acquire basic academic abilities to resolve issues from a broad perspective	○Advanced Course on Systems Design ◎Advanced Course on Applied Mathematics ◎Advanced Course on Mathematics for Computer Science ○Sensing Technology ○System Control Theory ◎Computational Science Practice I ◎Processor Architecture	◎Mathematical Theory of Distributed Systems ◎Advanced Course on Algorithm ◎Computability Theory ◎Advanced Course on Numerical Computation ◎Advanced Course on Computer Algebra ○Distributed Systems Theory ○Biomechanics ○Computational Science and Engineering I ○Computational Science Practice II	○Algorithms for Parallel Computing ○Computational Science and Engineering II	◎Advanced Course on Set Theory		
	To acquire practical skills and creativity to resolve issues from a broad perspective	○Advanced Course on Applied Mathematics ◎Large-Scale Software Engineering ○Computational Robotics ◎Theory of Search and Learn	◎Advanced Course on Systems Planning ◎Artificial Intelligence Construction ◎Large-Scale Intelligent Systems ◎Information Management ◎Advanced Course on Multimedia ◎Computational Science Practice II	◎Information Visualization ◎Applied System Recognition Theory ◎Applied System Planning Theory	◎Mathematical Modeling ◎Computational Physical Chemistry ◎Computational Biology ◎Systems Mechanics ◎Mixed Reality Systems ◎Medical Information Systems	◎Applied Systems Theory	
	To acquire advanced and superior expertise	○Large-Scale Software Engineering ○System Control Theory ◎Advanced Topics in Software Science ○Specific Research	◎Advanced Course on System Structure Theory ○Specific Research	○Dynamical Systems Theory ○Specific Research	◎Advanced Mathematical System Theory ○Specific Research	○Theory of System Fundamentals	○Theory of System Innovation
	To acquire in-depth knowledge to work as researchers in their respective fields of specialty	○Data Mining ◎Specific Research	◎Advanced Course on System Structure Theory ◎Design of information systems ◎Specific Research	◎Specific Research	◎Specific Research	◎Theory of System Fundamentals ○Specific Research	◎Advanced Science and Technology II ○Theory of System Innovation ○Specific Research
	To acquire highly specialized knowledge and wide-ranging insights to work as leading researchers in their respective fields of specialty					◎Theory of System Fundamentals ◎Specific Research	◎Theory of System Innovation ◎Specific Research

Department of Information Science , Graduate School of System Informatics
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		1st semester	2nd semester	1st semester	2nd semester	1st semester	2nd semester
Enriched Humanity	To acquire high ethical standards		○Information Management				
	To acquire a solid understanding of the impact of science and technology on society				○Advanced Course on Network Computing		
	To acquire the ability to take appropriate action	○Advanced Course on Mathematical Statistics					
Creativity	To maintain the liberal and open-minded culture	○Specific Research ○Advanced Science and Technology I	○Specific Research	○Specific Research	○Specific Research	○Specific Research	○Specific Research
	To acquire the ability to resolve problems in a creative manner	◎Advanced Course on Applied Mathematics ◎Data Mining ○Large-Scale Software Engineering ○Computational Robotics ○Computational Science Practice I ○Advanced Science and Technology I	○Advanced Course on Systems Planning ○Advanced Course on Algorithm ○Artificial Intelligence Construction ○Advanced Course on Computer Algebra	○Advanced Course on Programming Languages ○Information Visualization ○Algorithms for Parallel Computing	○Computational Biology ○Systems Mechanics		○Advanced Science and Technology II
International awareness	To acquire the ability to conduct exchanges with overseas partners	○Theory of Search and Learn	○Advanced Course on Multimedia ○Computational Science and Engineering I	○Computational Science and Engineering II			
	To acquire an understanding different cultures		○Computability Theory				
	To acquire the ability to exhibit individuality	○Advanced Topics in Software Science					○Advanced Science and Technology II
Expertise	To acquire highly specialized knowledge	◎Advanced Course on Systems Design ◎Computational Robotics ○Data Mining ◎Sensing Technology ○System Control Theory ○Processor Architecture	◎Advanced Course on System Structure Theory ○Artificial Intelligence Construction ○Advanced Course on Numerical Computation ○Advanced Course on Computer Algebra ◎Distributed Systems Theory ◎Biomechanics ◎Computational Science and Engineering I	◎Advanced Course on Systems Operation ◎Advanced Course on Programming Languages ◎Algorithms for Parallel Computing ○Information Visualization ◎Computational Science and Engineering II ○Dynamical Systems Theory	◎Advanced Course on Network Computing ○Mathematical Modeling ○Computational Physical Chemistry ◎Mixed Reality Systems		
	To acquire wide-ranging insights	◎Advanced Course on Mathematical Statistics ○Sensing Technology ○Computational Science Practice I ◎Advanced Science and Technology I ○Processor Architecture	○Advanced Course on Numerical Computation ◎Computational Science Practice II ○Biomechanics	◎Advanced Course on Systems Operation ◎Advanced Course on Mathematical Logic ○Dynamical Systems Theory	○Mathematical Modeling ◎Computational Biology ◎Computational Physical Chemistry ○Systems Mechanics ◎Medical Information Systems		
	To acquire basic academic abilities to resolve issues from a broad perspective	○Advanced Course on Systems Design ◎Advanced Course on Applied Mathematics ◎Advanced Course on Mathematics for Computer Science ○Sensing Technology ○System Control Theory ◎Computational Science Practice I ◎Processor Architecture	◎Mathematical Theory of Distributed Systems ◎Advanced Course on Algorithm ◎Computability Theory ◎Advanced Course on Numerical Computation ◎Advanced Course on Computer Algebra ○Distributed Systems Theory ○Biomechanics ○Computational Science and Engineering	○Algorithms for Parallel Computing ○Computational Science and Engineering II	◎Advanced Course on Set Theory		
	To acquire practical skills and creativity to resolve issues from a broad perspective	○Advanced Course on Applied Mathematics ◎Large-Scale Software Engineering ○Computational Robotics ◎Theory of Search and Learn	◎Advanced Course on Systems Planning ◎Artificial Intelligence Construction ◎Large-Scale Intelligent Systems ◎Information Management ◎Advanced Course on Multimedia ○Computational Science Practice II	○Information Visualization ◎Applied System Recognition Theory ◎Applied System Planning Theory	◎Mathematical Modeling ◎Computational Physical Chemistry ◎Computational Biology ◎Systems Mechanics ◎Mixed Reality Systems ○Medical Information Systems	◎Applied Systems Theory	
	To acquire advanced and superior expertise	○Large-Scale Software Engineering ○System Control Theory ◎Advanced Topics in Software Science ○Specific Research	○Advanced Course on System Structure Theory ○Specific Research	○Dynamical Systems Theory ○Specific Research	◎Advanced Mathematical System Theory ○Specific Research	○Theory of System Fundamentals	○Theory of System Innovation
	To acquire in-depth knowledge to work as researchers in their respective fields of specialty	○Data Mining ◎Specific Research	○Advanced Course on System Structure Theory ◎Design of information systems ◎Specific Research	◎Specific Research	◎Specific Research	◎Theory of System Fundamentals ○Specific Research	◎Advanced Science and Technology II ○Theory of System Innovation ○Specific Research
	To acquire highly specialized knowledge and wide-ranging insights to work as leading researchers in their respective fields of specialty					◎Theory of System Fundamentals ◎Specific Research	◎Theory of System Innovation ◎Specific Research

Department of Computational Science , Graduate School of System Informatics

Curriculum organization and implementation system where the students can reach the learning goals set in the diploma policy of Faculty of Engineering by taking the provided courses

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		1st semester	2nd semester	1st semester	2nd semester	1st semester	2nd semester
Enriched Humanity	To acquire high ethical standards		○Information Management				
	To acquire a solid understanding of the impact of science and technology on society				○Advanced Course on Network Computing		
	To acquire the ability to take appropriate action	○Advanced Course on Mathematical Statistics					
Creativity	To maintain the liberal and open-minded culture	○Specific Research ○Advanced Science and Technology I	○Specific Research	○Specific Research	○Specific Research	○Specific Research	○Specific Research
	To acquire the ability to resolve problems in a creative manner	○Advanced Course on Applied Mathematics ◎Data Mining ○Large-Scale Software Engineering ○Computational Robotics ◎Computational Science Practice I ◎Advanced Science and Technology I	○Advanced Course on Systems Planning ○Advanced Course on Algorithm ○Artificial Intelligence Construction ◎Advanced Course on Computer Algebra	◎Advanced Course on Programming Languages ○Information Visualization ○Algorithms for Parallel Computing	◎Computational Biology ◎Systems Mechanics		○Advanced Science and Technology II
International awareness	To acquire the ability to conduct exchanges with overseas partners	○Theory of Search and Learn	○Advanced Course on Multimedia ○Computational Science and Engineering I	◎Computational Science and Engineering II			
	To acquire an understanding different cultures		○Computability Theory				
	To acquire the ability to exhibit individuality	○Advanced Topics in Software Science					○Advanced Science and Technology II
Expertise	To acquire highly specialized knowledge	◎Advanced Course on Systems Design ◎Computational Robotics ○Data Mining ◎Sensing Technology ○System Control Theory ○Processor Architecture	◎Advanced Course on System Structure Theory ○Artificial Intelligence Construction ○Advanced Course on Numerical Computation ○Advanced Course on Computer Algebra ◎Distributed Systems Theory ◎Biomechanics ◎Computational Science and Engineering I	◎Advanced Course on Systems Operation ◎Advanced Course on Programming Languages ◎Algorithms for Parallel Computing ○Information Visualization ◎Computational Science and Engineering II ○Dynamical Systems Theory	◎Advanced Course on Network Computing ◎Mathematical Modeling ○Computational Physical Chemistry ◎Mixed Reality Systems		
	To acquire wide-ranging insights	◎Advanced Course on Mathematical Statistics ◎Sensing Technology ○Computational Science Practice I ◎Advanced Science and Technology I ○Processor Architecture	○Advanced Course on Numerical Computation ◎Computational Science Practice II ○Biomechanics	◎Advanced Course on Systems Operation ◎Advanced Course on Mathematical Logic ○Dynamical Systems Theory	◎Mathematical Modeling ○Computational Biology ◎Computational Physical Chemistry ○Systems Mechanics ◎Medical Information Systems		
	To acquire basic academic abilities to resolve issues from a broad perspective	○Advanced Course on Systems Design ◎Advanced Course on Applied Mathematics ◎Advanced Course on Mathematics for Computer Science ○Sensing Technology ○System Control Theory ◎Computational Science Practice I ◎Processor Architecture	◎Mathematical Theory of Distributed Systems ◎Advanced Course on Algorithm ◎Computability Theory ◎Advanced Course on Numerical Computation ◎Advanced Course on Computer Algebra ○Distributed Systems Theory ○Biomechanics ○Computational Science and Engineering	○Algorithms for Parallel Computing ○Computational Science and Engineering II	◎Advanced Course on Set Theory		
	To acquire practical skills and creativity to resolve issues from a broad perspective	○Advanced Course on Applied Mathematics ◎Large-Scale Software Engineering ○Computational Robotics ◎Theory of Search and Learn	◎Advanced Course on Systems Planning ◎Artificial Intelligence Construction ◎Large-Scale Intelligent Systems ◎Information Management ◎Advanced Course on Multimedia ○Computational Science Practice II	◎Information Visualization ◎Applied System Recognition Theory ◎Applied System Planning Theory	◎Mathematical Modeling ◎Computational Physical Chemistry ◎Computational Biology ◎Systems Mechanics ◎Mixed Reality Systems ○Medical Information Systems	◎Applied Systems Theory	
	To acquire advanced and superior expertise	○Large-Scale Software Engineering ○System Control Theory ◎Advanced Topics in Software Science ○Specific Research	◎Advanced Course on System Structure Theory ○Specific Research	○Dynamical Systems Theory ○Specific Research	◎Advanced Mathematical System Theory ○Specific Research	○Theory of System Fundamentals	○Theory of System Innovation
	To acquire in-depth knowledge to work as researchers in their respective fields of specialty	○Data Mining ◎Specific Research	○Advanced Course on System Structure Theory ◎Design of information systems ◎Specific Research	◎Specific Research	◎Specific Research	○Theory of System Fundamentals ○Specific Research	◎Advanced Science and Technology II ○Theory of System Innovation ○Specific Research
	To acquire highly specialized knowledge and wide-ranging insights to work as leading researchers in their respective fields of specialty					◎Theory of System Fundamentals ◎Specific Research	◎Theory of System Innovation ◎Specific Research