

登録コード	TS220600	開講年度	2026				
授業科目	数理情報学応用特別実験					担当教員	KAWAMOTO PAULINE NAOMI
英文授業名	Applied Mathematics and Informatics Laboratory 1					副担当	
単位数	4	講義期間	不定期	曜日・時限	集中・不定期	対象学生	
講義室				授業形態	実験	備考	
信大コンピテンシー	該当						
(1)授業の達成目標	【授業で得られる「学位授与の方針」要素】				【授業の達成目標】		
	2 4 TSカリ, 2 3 TSカリ						
	【研究科共通】人類, 社会の平和的・持続的発展のために, 研究者・技術者として科学・技術を発展させるための幅広い見識と健全な倫理観				Students will learn to consider and discuss the contribution of their engineering work to the peaceful and sustainable development of humanity and society.		
	【研究科共通】環境調和社会, 知識基盤社会を多様に支える高度な専門知識と実践的技術力				Students will learn to apply their engineering knowledge and skills to solving problems for an information-based society.		
	【研究科共通】さまざまな課題に対処できる高い情報収集・分析能力とグローバルな情報発信能力				By surveying various information sources, students will learn to consider and discuss the reliability of sources and find ways to communicate to a global audience with accountability.		
	【研究科共通】深い専門知識に基づいて自らの思考や妥当性を論理的に説明できる批判的思考力				Students will learn to plan, critique, and explain their work from an engineering perspective.		
	2 6 TSカリ, 2 5 TSカリ, 2 4 TSカリ, 2 3 TSカリ						
	【専攻】工学分野の研究者・技術者として科学・技術を発展させるための幅広い見識と健全な倫理観				Students will learn to consider and discuss the contribution of their engineering work to the peaceful and sustainable development of humanity and society.		
	【専攻】環境調和社会, 知識基盤社会を多様に支える工学分野の高度な専門知識と実践的技術力				Students will learn to apply their engineering knowledge and skills to solving problems for an information-based society.		
	【専攻】さまざまな課題に対処できる高い情報収集・分析能力とグローバルな情報発信能力				By surveying various information sources, students will learn to consider and discuss the reliability of sources and find ways to communicate to a global audience with accountability.		
	【専攻】専門知識に基づいて自らの思考や妥当性を論理的に説明できる批判的思考力				Students will learn to plan, critique, and explain their work from an engineering perspective.		
(2)授業の概要	Students will be able to do an extended piece of independent engineering research using the knowledge and skills gained in the graduate and undergraduate studies and discuss and report on the results of experiments and studies done to answer specific research questions.						
(3)授業計画	Week 1: Orientation Weeks 2-5: Development of experiment schedule (including preliminary investigations and experiments done to form research questions to be answered in the research period) Weeks 6-12: Research experiments and discussions Week 13: Presentation of experiment milestones (1) Weeks 14-21: Research experiments and discussions Week 22: Presentation of experiment milestones (2) Weeks 23-32: Research experiments and discussions						
(4)成績評価の方法	Students will be evaluated on their participation and reports in weekly research meetings and discussions of their investigations and experiment milestones for answering specific research questions.						
(5)成績評価の基準	Development of experiment milestone schedule (10%): to check their understanding of how to plan tests and experiments for answering specific research questions in the research period Preparation, execution, and review of experiments (50%): to check their understanding of the work of planning and preparing materials for investigations and experiments relating to a defined research problem and reviewing the results Presentation of experiment milestones (40%): to check their understanding of how to explain their research investigations and experiment milestones from an engineering perspective						
(6)事前事後学習の内容							
(7)履修上の注意	Students will be responsible for managing version control of their research work, data, and reports.						
(8)質問,相談への対応	Instructor contact e-mail: pauline@cs.shinshu-u.ac.jp						
(9)その他							
【教科書】	None.						
【参考書】	Indicated, as needed during the course of research planning and execution.						