北陸先端科学技術大学院大学研究室教育指針
Laboratory Education Guideline

研究室教育指針は、学則第３０条の３に基づき、研究指導の方法及び内容並びに修了までの研究指導の計画をあらかじめ明示するものです。
Based on the Article 30-3 of the general academic rules, the Laboratory Education Guideline is intended to clearly outline the methods and content of research guidance, as well as the plan for research guidance until completion.

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1. 研究テーマ / Research Theme
Game informatics, such as human-like, entertaining or educating computer game players, procedural content generation. We use supervised learning, reinforcement learning, game tree search, or genetic algorithms etc.
2. 修得が期待される能力 / Competencies expected to be acquired 研究室教育は必修 A 科目（先端）又は研究支援科目（融合）の一部として単位化されており、この欄はそれら科目のシラバス上の達成目標の一部となります。 Laboratory Education is accredited as a part of the Required courses A (Division of Advanced Science and Technology) or Research Support Courses (Division of Transdisciplinary Sciences), and this section constitutes a part of the course goals stated in the syllabus for such subjects.
Research requires (1) specialized knowledge in game informatics, (2) information technologies such as artificial intelligence and programming, and (3) general abilities as an intellectual worker, and the goal is to acquire these skills. In (2), depending on the target game, students learn techniques such as optimization, machine learning, and tree search, and also develop programming skills with an awareness that the code will be read by others and maintained over the long term. In (3), the aim is to acquire abilities such as deeply analyzing a subject and identifying problems; examining and testing multiple approaches to those problems; objectively comparing results and iterating the research cycle; explaining methods and results clearly using figures, examples, and equations with consideration of the audience and context; reporting, communicating, consulting, and collaborating while considering the situation when necessary; and decomposing long-term goals to create short- and mid-term schedules.
3. 研究指導方針 / Research Guiding Principle
Students are asked to propose research topics based on their own "affection for and dissatisfaction with" games, and through repeated discussions, themes with academic value, originality, and practical usefulness are developed. Rather than waiting for instructions or predefined topics, students are expected to advance research proposals proactively, while also cultivating research ethics, idea generation techniques, and critical thinking skills. Through regular and occasional presentations and consultations, communication skills, skills for abstraction and concretization, visualization skills, and presentation skills are also fostered. For master's students, the expected completion benchmark is reaching a level at which they can present their work at a domestic specialized academic conference. However, because students at this university vary greatly in background, ability, goals, and length of enrollment, the program does not aim for all students to reach a single common level by graduation. Instead, emphasis is placed on ensuring that each student achieves a certain minimum degree of improvement relative to their own starting point.
4. 研究室活動の内容及び方法 / Content and Methods of Laboratory Activities
□日次活動 / Daily Activities： A brief lunchtime check-in at 12:35 for information sharing and maintaining well-being □週次活動 / Weekly Activities： Weekly report email (about 10 lines are sufficient) at Friday. Weekly lab seminar (presentation is about monthly). □月次活動 / Monthly Activities： Student interview. □不定期活動 / Occasional Activities： 10 minutes scientific presentations for new M1

students

5. 年間スケジュール / Annual Schedule

本学の全学共通の年間スケジュールは「履修案内」の「学位取得に至るスケジュール」を参照してください。(本学HP 参照：ホーム＞教育＞履修関係＞履修案内)

Please refer to the "Degree conferment schedule for the master's program/doctoral program" in the "Degree Completion Guide" for university-wide common schedule (JAIST website: Home >Education>Taking Courses>Degree Completion Guide)

The following is only an example of a master's program completed in two years and a doctoral program completed in five years. In practice, there are cases in which an extended master's program (M-alpha) is recommended, and some students progress quickly while others proceed at a more deliberate pace.

M1 (first semester): Focus on coursework. Internships during the summer break are recommended, preferably in place of a minor research theme.

M1 (second semester): Become accustomed to presentations through short (e.g., 10-minute) scientific presentations, gain hands-on experience through small-scale research, and determine a research theme before starting job hunting. For job hunting, students are encouraged to start early and explore options broadly, both horizontally and vertically.

M2 (first semester): After securing a job offer, complete the minor research theme as early as possible if it has not yet been finished. Begin full-scale research.

M2 (second semester): Complete the research and present it at an academic conference (such as the Game Programming Workshop or the Special Interest Group on Game Informatics).

D1: Broaden perspectives through overseas study, internships, and related experiences, and begin participating in the research community. This is also a period in which research themes can be expanded with relative freedom.

D2: Concentrate on the core and main line of the research, aiming for world-class results. Actively submit papers, enhance visibility and presence, and in some cases connect research activities to career development through collaborations.

D3: Continue research and presentations, while also proceeding with job hunting and doctoral dissertation writing with sufficient time margin.