

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.

氏名 / name : Hidekazu Yoshioka 役職 / official position : Associate Professor

1. 研究テーマ / Research Theme
Decision science for environmental and social sustainability
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.
Knowledge and skills for investigating sustainable management of resources and the environment from a mathematical perspective, particularly related to modeling, control theory, and optimization theory.
3. 研究指導方針 / Research Guiding Principle
We respect the students' autonomy when deciding on research themes, and aim to do so in consultation with faculty. A variety of research themes are anticipated, including mathematical analysis and numerical calculations based on data collected in research fields such as rivers, lakes, dam reservoirs, and farmland. Collecting data in the field is always a one-off experience, and there are many situations where students are forced to uncover the mathematical structures hidden behind phenomena from limited data. To achieve this, we cultivate the ability to uncover real phenomena from data.
4. 研究室活動の内容及び方法 / Content and Methods of Laboratory Activities
<input type="checkbox"/> 日次活動 / Daily Activities : Nothing in particular <input type="checkbox"/> 週次活動 / Weekly Activities : Individual meetings (as needed), research progress report seminars (maybe once a week) <input type="checkbox"/> 月次活動 / Monthly Activities : Nothing in particular <input type="checkbox"/> 不定期活動 / Occasional Activities : Presentation practice before midterm presentations, thesis presentations, and research presentations both on and off campus
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)
Master's and doctoral students are inevitably expected to take initiative in their research, but we believe this is the same at any university and in any laboratory. With this premise, our laboratory will conduct laboratory activities based on the following schedule. (June-November every year) M2 and above students participate in and present their research at off-campus research conferences related to applied mathematics.

(December every year)

M2 students graduating in March are required to complete the first draft of their master's thesis during this period. Students graduating at other times are also required to do the same, but at a later date.

(As needed each year)

M2 and above students, especially those in their first year or above, are required to submit at least one research paper each year to a peer-reviewed academic journal in applied mathematics or a related field.

(February-March every year)

Graduating students hand over their research to students conducting related research. Students graduating at other times are also required to do the same, but at a later date.