

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
The main research themes are ultra-trace Raman spectroscopy (surface-enhanced Raman scattering, SERS) and Raman spectroscopy. The lab also broadly covers surface-enhanced fluorescence and surface-enhanced nonlinear spectroscopy based on quantum optics, interdisciplinary areas between physics and chemistry, plasmonics, and nanomaterials research. In addition, we are flexible in accommodating student-proposed research topics.
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.
<ul style="list-style-type: none">• Ability to independently plan and conduct research projects• Ability to obtain research and development funding• Ability to critically and accurately evaluate existing literature and published research and to appropriately apply such knowledge to one's own research activities• Understanding of research ethics and responsible conduct of research• Ability to prepare effective research presentations• Ability to prepare and deliver poster and oral presentations at domestic academic conferences and international meetings• Ability to write academic theses (Master's and Doctoral degrees)• Ability to build and maintain professional and research networks• Ability to write, submit, and publish international peer-reviewed papers, particularly developed during doctoral-level training
3. 研究指導方針 / Research Guiding Principle
We foster a flexible and vibrant research environment dedicated to world-class basic science. Our laboratory operates without set core hours, allowing members to structure their research schedules independently. Team collaboration occurs through weekly general meetings and seminars, where members exchange information and share progress updates. This setup particularly suits students who excel at self-directed research. We encourage researchers to present their work at academic conferences annually. Research themes blend advisor-suggested topics with students' individual interests and career goals. Our primary aim is to publish findings in international, English-language journals. This makes our lab an ideal environment for aspiring professional researchers. I, as an academic supervisor, am always available for one-on-one guidance. We encourage you to leverage my expertise and experience fully.
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 : Independent research activities, self-directed work <input type="checkbox"/> 週次活動 / Weekly Activities : Individual meetings with supervisors, research progress consultations (Weekly meeting), journal club <input type="checkbox"/> 月次活動 / Monthly Activities : Research progress presentations (Monthly meeting) <input type="checkbox"/> 不定期活動 / Occasional Activities : Study sessions with domestic and international experts, individual meetings (available upon student request), presentations at academic conferences (domestic and international), research seminars (on-campus and off-campus), technical study sessions (on-campus and off-campus), research funding acquisition workshops, networking and social events (on-campus and off-campus),

collaborative research with industry or industry-government-university partnerships, attendance at presentations in other laboratories, research ethics training, university-wide joint laboratory seminars, retreats (intensive workshops)

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)

- Welcome party for new students (spring and autumn)
- Laboratory orientation and training for new students (spring and autumn)
- Laboratory retreat (summer or winter)
- Participation in domestic and international conferences in autumn (recommended once during the master’s program, and approximately once a year during the doctoral program)
Recommended conferences: The Japan Society of Applied Physics (JSAP), International Conference on Raman Spectroscopy (ICORS), International Conference on Advanced Vibrational Spectroscopy (ICAVS)
- Year-end laboratory cleaning (December)
- Participation in domestic and international conferences in spring (recommended once during the master’s program, and approximately once a year during the doctoral program)
Recommended conferences: The Japan Society of Applied Physics (JSAP), The Spectroscopical Society of Japan (SPSJ), and others