

University Common Use Facilities



● Research Center for Biosignal

[Purpose of Establishment]

We conduct unique research activities into biological information molecules such as lipids, proteins, nucleic acids, etc., and cooperate with similar Japanese and foreign organizations to maintain an open science and technology dialogue with the Japanese people. We are committed to sharing the results of our school's research with the local community and the rest of the world.



● Information Integration Center

[Facilities and Equipment]

- Educational PCs (total 400): PC study rooms 1.2.4, PC study rooms A/B, Hondo PC study room, Group study corner, Scanner corner, Multilingual corner, Central Library, Medical Library
- Information services: Web mail, Large-size printer, Large-scale computing server, Virtual server hosting
- Information network : LAN cable (1-4 Gbps to the floor switch), Wireless LAN, Connection network outside the university (1 Gbps)

● Cooperative Research Center

[Purpose of Establishment]

Advance joint research with extra university organizations to develop Akita University's education and research level. Promote to share intellectual property and intellectual property within the community from the research results. Contribute to the technological development and technological development promotion in society.

● International Center for Research and Education on Mineral and Energy Resources

[Purpose of Establishment]

Train advanced resource development professionals with a global perspective, and contribute to the establishment of Japan's resource security and stable resource-supply system. Create an international resource network for further international exchange and global contributions.



● Bio-science research and education support center

[Facilities and Equipment]

- Animal Center: [Breeding facilities] For mice, rats, guinea pigs, rabbits, cats, dogs, pigs, etc. [Special experiment equipment] Laboratory for infected animals, chemical hazard laboratory. [Analysis equipment] Ultrasound imaging, in vivo luminescence imaging, fluorescence imaging, X-ray television systems, etc. [Research support work] Reproductive engineering technological support (cryopreservation, individual cloning), creation of genetically modified animals, guidance on animal experiment techniques.
- Radioisotope Laboratory: [Equipment] Survey meter, liquid scintillation counter, image analysis scanner, etc. [Nuclide application approved] ^{32}P , ^3H , ^{125}I , ^{15}O . [Experiment support] Departmental staff available to carry out RI-related duties (Negotiable).
- Department of Molecular Medicine: [Equipment] Advanced technology sequencer, confocal laser microscope, transmission electron microscope, flow cytometer, LC-MS analysis equipment, centrifuges, spectrophotometer [Contract services] Tissue sample preparation, gene analysis, preparation of electron microscope samples, cell fractionation, mass spectrometry.
- Department of Education and Research Liaison



● Radioisotope Research Center

[Facilities and Equipment]

- Unsealed source experiment area: -10°C and 4°C experiment laboratories: 3 fume hoods and 1 biosafety cabinet, liquid scintillation counter, tritium gas measuring and experiment equipment, various scalars, survey meters and plate analyzers
- Sealed source experiment area: Multi-channel ray spectrometer, high-performance liquid chromatograph mass spectroscope, image analyzer, horizontal x-ray diffractometer

16 types of unsealed sources and 5 types of sealed sources are available for use.



● Environmental Research Center

[Facilities and Equipment]

- Waste Treatment Building: inorganic waste – ferritization processing, organic waste/hazardous solid waste – spray combustion/incineration, mercury, cyanide waste – oxidative decomposition and absorption processing, fluorine-phosphoric acid-based waste – calcification processing, COD waste – Fenton treatment
- Experiment and Analysis Building: Gas chromatograph/ mass spectrometer, gas chromatograph, atomic absorption spectrophotometer, liquid chromatograph, X-ray analysis equipment, other necessary equipment

for Education and Research



● Regional Innovation Center

[Purpose of Establishment]

As a university which serves as a base for learning in the region, we contribute to the promotion and revitalization of local businesses, developing talent which serves the community, through collaborative research and support initiatives to promote the local economy and prevent disasters in the region, and research which supports local businesses.

● Regional Innovation Center Building No. 1

[Facilities and Equipment]

(Equipment implemented at the Akita Industry Academia and Government Cooperative Research Center installed in the Center)

Ultrapure water production system, fume hood, microwave sample pretreatment system, ultra-high resolution field emission scanning electron microscope, carbon, hydrogen, nitrogen, sulfur, oxygen fully automated analyzer, flame/furnace high-resolution continuum source atomic absorption spectrometer, elemental analyzer, high-resolution nuclear magnetic resonance spectrometer (600MHz), x-ray photoelectron spectrometer, micro-focus x-ray CT fluoroscopy equipment, mercury porosimeter, ultra-high performance liquid chromatographic system, light scattering GPC molecular weight measurement device, Terahertz spectral measurement device, bipolar power supply, activated sludge treatment equipment, spray dryer equipment, specific surface area and pore size distribution measuring apparatus, catalyst analyzer, real-time PCR system, multi-label counter, rotational viscometer, quadrupole – flight time MS/MS analysis system, gas absorption measuring equipment, modular electrochemical measurement system, confocal laser scanning microscope, matrix-assisted laser desorption ionization flight time mass spectrometer bio-clean bench.

● Regional Innovation Center Building No. 2

[Purpose and Establishment]

- New recycling technique and assessment system: Particle size and surface potential analyzer, Ion chromatograph, Measuring microscope, Scanning probe microscope, ICP emission spectrometer, Differential thermal balance, Disk-type manual grinder, Roll-type magnetic separator, Laser date electrometer, ERIEZ nonferrous metal sorter, Vacuum arc melting furnace, X-ray fluorescence (XRF) spectrometer, metallic dispersion measurement equipment, pneumatic table, wet drum magnetic separator, etc.
- High-function material planning and assessment systems: Field Emission Scanning Electron Microscope, Multilayer film production device, Multiple alloy film production device, Scanning electron microscope, High vacuum scanning probe microscope, High sensitivity magnetization measurement device, High vacuum heat treatment apparatus, Thin film x-ray diffraction apparatus, Powder x-ray diffraction apparatus, Magnetic storage material analysis and evaluation system. Nanoparticle particle size analysis device/ zeta potential meter; liquid nitrogen production equipment; surface roughness tester, etc.

Center for Education and Research

	Purpose of Establishment
Institutional Research and Evaluation Center	<ul style="list-style-type: none"> ● To support self-evaluation, assessment activities, and the effort to improve the student experience at Akita University ● To research and develop student/faculty evaluation systems ● Utilization and analysis of information inside and outside the university
Center for Promotion of Educational Research and Affairs	<ul style="list-style-type: none"> ● To promote the structure and educational activities of an education system centered on a fundamental core curriculum education ● To improve and enhance fundamental core curriculum education and specialized education through investigation, research, and development
Student Support Center	<ul style="list-style-type: none"> ● To provide support for students through various types of consultation, and financial aid through tuition waivers and scholarship recommendations ● To provide support for extracurricular activities such as the university festival, and to promote the maintenance and improvement of extracurricular activity facilities ● To provide career selection guidance and support career search activities by providing career-related information, etc
Secondary Education Collaboration Center	<ul style="list-style-type: none"> ● Connection between high school and university studies ● Research and development of selection methods for university admissions based on admissions policies ● Planning and drafting PR material for aspiring university applicants
Center for Teaching License Extension	<ul style="list-style-type: none"> ● To plan and execute training for educators who need to extend their teaching license ● Liaise with Akita boards of education, prefectural universities and education organizations
International Exchange Center	<ul style="list-style-type: none"> ● Planning and advertising activities related to international exchange ● To promote international scholarly exchange ● To promote international educational exchange

Technological Organization

	Purpose of Establishment
General Technology Section	<ul style="list-style-type: none"> ● To provide campus-wide technological support for educational research activities ● To maintain and develop the expertise of the engineering faculty as a common asset of the university, and to improve those capabilities and qualities and to ensure excellent tech support.