

CWRU Core Facility Services

Case Western Reserve University's professional service centers offer facilities & expertise to solve your imaging, characterization, testing & prototyping needs.



Case Western Reserve University, one of the nation's leading research universities, is the proud home to many exceptional centers, covering a wide variety of disciplines. These centers provide access to specialized machines and laboratories for students, faculty, staff and researchers as well as non-university customers to use. Additionally, trained professionals with years of expertise are available for service work and consultation.

SERVICES AND EXPERTISE:

- Material characterization
XPS, XRD, NMR, TOF-SIMS
- Analytical instrumentation
MS, GC, HPLC, AAS, FTIR & UV/VIS
- Imaging
SEM, AFM, TEM, Optical
- Biological imaging
MRI, tomography, fluorescence, SPECT
- Biophysical techniques
Cryo-EM, NMR, X-ray crystallography, proteomics
- Mechanical characterization, deformation simulator, rolling mill, tension, compression, torsion, fatigue testing
- Stylus & Optical profilometers, nanoindenters
- Machine shop services, 3D printing, laser cutting
- Scientific instrument repair
- Solar durability and analysis, spectrophotometry scatterometry
- Spectroscopic Ellipsometer, Spectrophotometer, Quantum Efficiency Measurement System
- Thermal evaporation and sputtering, microfabrication, thick film printing, wafer dicing
- Metal casting, forging, thermal fatigue
- Electro-chemical energy research, double layer capacitor testing

If you represent a core facility or service center that would like to join our group please contact cwrucores@case.edu.

CWRU Core Facility Services

Promoting & supporting research across Case Western Reserve University, Northern Ohio & beyond.

CENTER NAME	EXPERTISE	CONTACT	WEBSITE
Advanced Manufacturing & Mechanical Reliability Center (AMMRC)	Advanced manufacturing and mechanical characterization, deformation simulator, bending fatigue, tension, compression, torsion testing equipment, high pressure testing	Chris Tuma	ammrc.case.edu
Case Electrochemical Capacitor Fabrication Facility (CECFF)	Facilitate performance evaluations & durability studies of new materials and designs for electric double layer capacitors	Mirko Antloga	energy.case.edu/CECFF
Case Metals Processing Lab (CMPL)	Casting, Forging, Thermal Fatigue, Ferrous Alloys, Non-ferrous Alloys	Matthew Willard	engineering.case.edu/groups/CMPL
Case Center for Imaging Research	Preclinical and clinical medical imaging systems, MRI, tomography, bioluminescence, SPECT, fluorescence	Cena Hilliard	ccir.case.edu
Center for Advanced Polymer Processing (CAPP)	Polymer blending, compounding and reactive extrusion in support of the polymer processing and pharmaceutical industries	Dr. João Maia	engineering.case.edu/centers/capp
Chemistry Instrumentation Facility	Analytical Instrumentation such as MS, GC, HPLC, AAS, FTIR and UV/vis	Dr. James Faulk	case.edu/artsci/chem/faculty/_research/instruments.html
Cleveland Center for Membrane and Structural Biology (CCMSB)	Cryo-EM facility usable with negatively stained or flash-frozen (cryo-EM, cryo-tomography), NMR, X-ray crystallography, proteomics, related biophysical techniques	Heather Holdaway	ccmsb.case.edu
Design Fabrication Center (DFC)	Design & fabrication of custom research apparatus, modification of existing instrumentation	Steven Torontali	casemed.case.edu/dfc/projects_purchase.cfm
Electrochemical Engineering & Energy Laboratory (EEEL)	Electrochemical energy efficiency, conversion, storage technologies, focus on fuel cell technologies, flow batteries, electrochemical synthesis of fuels	Mirko Antloga	mfa9@case.edu
Electron Microscopy Core Facility	Transmission electron microscopic services, biological sample preparation, immunocytochemistry, ultramicrotomy, digital image recording	Midori Hitomi	casemed.case.edu/em-facility
Electronics Design Center (EDC)	R&D sensor production, microfabrication, clean room access, sputtering, wafer dicing, thick film printing	Laurie Dudik	engineering.case.edu/edct
Engineering Services Fabrication Center	Develop and fabricate an original design or assist in the modification of existing laboratory devices	Sam Cordaro	engineering.case.edu/centers/esfc/home
Materials for Opto/Electronics Research and Education (MORE) Center	Fabrication, characterization of materials & de-vices for solar energy, emerging electronic & optoelectronic technologies	Ina Martin	morecenter.case.edu
NMR Facilities	Modern NMR experiments, including different nuclei analysis, molecular structure, dynamics & reaction mechanisms	Prashansa Agrawal	case.edu/artsci/chem/faculty/_research/nmr.html
Physics Machine Shop	Fabrication & design of custom apparatus	Rick Bihary	Physics Research Machine Shop, AW Smith 17-19, rfb19@case.edu
Scientific Instrument Repair Center	Diagnostic analysis, repair & calibration of general & specialized laboratory equipment, consultation on new & used equipment purchases, energy efficient replacement options	Bill Frank	casemed.case.edu/sirc/default.htm
Solar Durability and Lifetime Extension Center (SDLE)	Capabilities in environmental exposure & materials evaluation, including spectrophotometry, scatterometry & other analysis	Chris Littman	engineering.case.edu/centers/sdle/About-SDLE
Swagelok Center for Surface Analysis of Materials (SCSAM)	Instrumentation for microstructural characterization of materials, surface and near-surface chemical analysis	Amir Avishai	engineering.case.edu/centers/scsam
Technical Development Lab (TDL)	Implantable medical device design and development facility for clinical research under IDE regulations	Jim Uhler	fescenter.org/about-fes-center/fes-center-facilities
Think [box]	Invention center to tinker and creatively invent	Ben Guengerich	engineering.case.edu/thinkbox/home

Visit research.case.edu/corefacilities for more information and a comprehensive listing of facilities.