The Western Michigan University Research Handbook

Learner Centered    Discovery Driven    Globally Engaged
Vision and Mission

Western Michigan University is among the nation’s top 200 public universities designated as high research institutions by the Carnegie Foundation. The Vision of the Office of the Vice President for Research (OVPR) is to be a leader and catalyst for excellence in discovery.

Our OVPR Mission is fourfold: 1) to advance the overall discovery enterprise of the University; 2) to support the discovery initiatives of WMU faculty, students, and staff; 3) to ensure compliance with all appropriate federal and state regulations; and 4) to support technology and knowledge dissemination.

The Western Michigan University Research Handbook is offered to assist faculty and students in their efforts to develop and manage their research projects. This booklet presents an overview of OVPR and introduces the researcher to internal funding, external funding, research compliance protocols, ethics, and commercialization of intellectual property at Western Michigan University. We look forward to working with you for success in your scholarship and research programs.

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On the cover
Sara Lara, chemical engineering undergraduate, at work on her senior design printed electronics project.
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I. Overview of OVPR

The Office of the Vice President for Research (OVPR) supports faculty, staff, students, and collaborative groups in efforts to secure funding and advance the overall research agenda of the University. In addition to the VP for Research and an associate VP, a team of research program officers and staff in OVPR serve as key resources in the grant application process. The OVPR supports external funding initiatives in compliance with all appropriate federal and state regulations and offers faculty and staff information and services regarding:

- Identification of funding sources
- Grant proposal and contract preparation
- University approval and submission of grants and contracts
- Partnerships with industry, government, and other institutions
- Multidisciplinary collaborations within the University
- Intellectual property and commercialization
- Research compliance, ethics, and regulatory issues
II. External Funding and Organization of OVPR

External funding is available from a variety of agencies and institutions that provide either grants or contracts. OVPR offers a number of resources, including online searches of funding sources. Contact with a research officer is vital once an initial search is conducted by the researcher. Links to some of these databases can be accessed through the OVPR website (www.wmich.edu/research/funding/external); others are accessible only by OVPR staff.

Research team and support staff offices are located on the second floor of West Walwood Hall on East Campus near the intersection of Oakland Drive and Oliver Lane. Here, the OVPR provides an array of resources and support personnel to assist scholars through the pre-award to submission phase, contract negotiations, and intellectual property and commercialization.

Research program officers and the contract administrator are available to meet with faculty, staff, and students. Each officer is assigned constituent areas such as colleges or units which are identified on our website. While available to meet with researchers in our Walwood offices, each research officer also has college and program specific offices located throughout campus. Go to the OVPR web site for a full listing of constituent areas and the assigned research officer.

Industrial and other research contracts are overseen by our research contracts administrator who can assist personnel with negotiating and completing the necessary forms for approved agreements between the individual, University, and third parties.

The Intellectual Property Management and Commercialization Office, also located in West Walwood, functions to increase the commercial impact and value of WMU personnel discoveries and inventions.

The director of Intellectual Property Management and Commercialization assists faculty, staff, and their students with intellectual property (IP) and commercialization issues. A significant amount of research conducted at WMU results in new discoveries that can benefit society; the coordination and transfer of these findings to the commercial sector is segued through the intellectual property and commercialization function known as technology transfer. The booklet, Technology Transfer at WMU: A Guide for Researchers, provides information about the process and is available through this office. The Technology Development Fund Award is an internal grant program available for faculty to further develop their inventions. The IP policy is available online at www.wmich.edu/research/policies/intellectual and guides the handling of related issues.
The OVPR assists in identification of grant funding opportunities, proposal development, and grant submissions. Approval by the VP for research is required for all proposals prior to submission.

Chairs, deans or associate deans, and specific VPs must also approve proposals from their units, prior to final approval by the VP for research. In addition, provost or associate provost approval may be required when WMU cost-share is included in a proposal budget.

Post-award assistance, including financial management and oversight, are provided by the Grants and Contracts Office. Depending on the value, either the VP for research (< $50K) and VP for business and finance (> $50K) are authorized to sign contracts for WMU.
The Grants and Contracts Office handles post-award grant administration, including fiscal management and oversight. A function of the vice president for business and finance, the grants and contracts offices are located in the administration building. More information about their services is available at www.wmich.edu/grantscontracts.

Research ethics and compliance are an important part of the research enterprise. Most often, research and creative activities are subject to a range of regulations regarding financial accountability and research procedures. Faculty, staff, and students must comply with University and federal regulations. See pages 10—11 for information on WMU’s Research Misconduct Policy and Procedures.

OVPR employs a research compliance coordinator who coordinates the functions of the Human Subjects Institutional Review Board (HSIRB), the Institutional Animal Care and Use Committee (IACUC), the Recombinant DNA Biosafety Committee (RDBC), and compliance with export control regulations. WMU’s radiation and biosafety officer oversees all research projects that use potentially hazardous materials.

The proposal approval process entails specific procedures, such as completion of the proposal approval form (PAF), prior to proposal submission. The PAF is a web-based form, accessed through the WMU website (wmich.edu/research/forms/proposal-approval). Your research officer can assist with completing the PAF, which protects both the University and principal investigator (PI). Issues such as cost share, release time, buyout, and laboratory space must be agreed to in advance by the chair, dean, and VP for research. Some proposals also require additional VP or provost approval. A budget, budget justification, and draft of the proposal must accompany the electronic PAF; research officers must approve proposal budgets before the PAF can be routed to others for approval.

Allow at least five business days to obtain signature approval from the department, college, and OVPR. If a contract is required by the grant, allow additional time. PIs are not authorized to sign proposals on behalf of WMU. Grant proposals and contracts can be signed only by the VP and associate VP for research or the VP and associate VP for business and finance.

While the PAF is being routed, OVPR staff can assist the PI with duplicating, completing assurance forms, or navigating the submission process. The electronic PAF has reduced time and paperwork but timing remains critical. It is important that electronic PAF files are at OVPR at least three business days prior to deadline so they can be reviewed for accuracy and approved for submission.
In addition to external sources of funding, the OVPR administers internal funding provided by the University to support research and creative activities. Following are introductions to each of the individual programs for internal funding. Detailed information about each program is available at www.wmich.edu/research/funding/internal.

**Faculty Research and Creative Activities Award (FRACAA)**
The purpose of the FRACAA is to encourage and support faculty in significant research, rigorous scientific inquiry, original artistic activity, and inventive technology. The award is also intended to increase external funding to WMU in support of faculty scholarship. A competitive award, FRACAA proposals are reviewed by the FRACAA Research Screening Committee. Awards are made for up to $10,000 and require submission of an external funding proposal within 18 months of the end of the project period. FRACAA applications are typically due in early January, with awards made to begin by July 1.

**Faculty Research Travel Fund (FRTF)**
The FRTF supports faculty travel to meetings of professional organizations for the purpose of reporting research results, exhibiting or performing creative works, or otherwise disseminating results of the University’s scholarly activity. Applications are accepted on a continuing basis and should be submitted after travel has occurred. Applications must include evidence of the presentation, exhibition, or performance.

**Support for Faculty Scholars Award (SFSA)**
The purpose of the SFSA is to advance the research mission of the University. The SFSA provides up to $2,000 in support of creative activities and research that may not lead to external funding but that enhance and sustain the scholarly reputation of WMU and the faculty investigator. SFSA applications are accepted twice each year on September 30 and January 31. Award periods are for 12 months, with no extensions allowed.

**Research Equipment Fund**
The Research Equipment Fund provides cost share for equipment related to externally-funded projects. PIs work through their associate deans to request funding from OVPR.

**Final Preparation and Publication of Papers and Exhibition of Creative Works (PPP&E) Program**
The PPP&E program provides funds to support preparation and publication of papers and creative works through recognized professional media. In this context, final preparation, publication, and exhibition mean activities occurring after the research and creative activity have been completed. The program supports such costs as journal page charges, preparation of figures or illustrations, and...
other expenses associated with final publication or exhibition. Applications for reimbursement of such expenses are accepted on a continuing basis throughout the fiscal year.

**OVPR Undergraduate Research Excellence Award (UREA)**
The UREA provides undergraduate students with opportunities for hands-on research or creative experience with faculty members whose work is supported with external funding. The UREA provides students with up to $500 toward a stipend, travel, or supplies. Faculty can also request up to $200 for the purchase of supplies to support the student’s work. Applications are accepted twice each year on September 30 and January 31.

**Technology Development Fund Award (TDF)**
The Technology Development Fund is available for researchers with discoveries that need assistance to transition from invention to commercialization. The award helps researchers bridge the gap that often exists between research-stage technologies and technologies that are ready to be licensed by a corporation, or which may be ready for private investment as part of a new enterprise. Criteria for qualifying projects are detailed online. Proposed projects must be based on intellectual property (IP) disclosed to OVPR. Applications are generally due during the fall semester.

Information about all internal funding opportunities managed by the OVPR is available at www.wmich.edu/research/funding/internal or by calling 269-387-8270.
**IV. Compliance**

**Human Subjects Institutional Review Board (HSIRB)**

A local review board, the WMU HSIRB was established by the WMU Board of Trustees in accordance with federal regulations to interpret and apply federal regulations, state law, and sponsor requirements for the use of human subjects in research. The HSIRB is charged with the protection of the rights and welfare of human subjects in research conducted under the aegis of WMU.

Three basic ethical principles guiding the HSIRB are derived from the Belmont Report: respect for persons, beneficence, and justice. By submitting a protocol to HSIRB:

- Investigators comply with University policy and federal regulations
- Investigators promote the protection of the rights and welfare of research participants
- Faculty set an example for student researchers, and students learn about the ethical conduct of research with humans

Graduate student advisors must require their students whose research projects include working with human subjects in any way to contact the research compliance coordinator to determine the need for HSIRB review. If the project does not require HSIRB review, a letter from the OVPR compliance office will be provided. Cases exist of students unable to complete their theses because they did not seek HSIRB approval prior to beginning their research.

Faculty are likewise reminded to check with the HSIRB before beginning projects that involve the use of human subjects. Federal and University regulations require that all investigators (faculty and students) who will conduct research with human subjects or materials of human origins to obtain HSIRB approval. Contact the associate director research compliance with questions.

**Institutional Animal Care and Use Committee (IACUC)**

IACUC reviews all research and teaching protocols involving vertebrate animals. Animal use in research involves responsibility for the stewardship of the animals and accountability to the scientific community and society for animal welfare.

Three basic principles are particularly relevant to the ethics of research using animals: respect for life; societal benefit; and, non-malfeasance.

Before a researcher can order animals for research projects, he/she must have an IACUC approved protocol. University policies on animal use and care adhere to federal requirements. Copies of these policies are available online, or from the associate director research compliance.
Radiation Safety Policy

The radiation safety officer, whose office is located in Wood Hall, is responsible for ensuring that all research involving use of radiation and/or radioactive materials conducted under the aegis of Western Michigan University adheres to federal regulations.

These regulations require that WMU assures that exposure to radiation is ALARA (As Low As Reasonably Achievable). This policy applies to all personnel in facilities or on property owned by WMU who utilize radioactive materials or radiation producing devices.

Questions should be directed to the WMU Radiation Safety—Biosafety Officer. Contact information is available on the website.

Recombinant DNA Biosafety Committee (RDBC)

This committee reviews research conducted under the aegis of WMU that involves recombinant DNA molecules. The purpose of this committee is to ensure that all teaching, research, and clinical activities at WMU involving the use of potentially hazardous microbial agents and/or their products are conducted in a safe and secure environment.

Recombinant DNA molecules are defined as either (1) molecules that are constructed outside living cells by joining natural or synthetic DNA segment to DNA molecules that can replicate in a living cell, or (2) DNA molecules that result from the replication of those described in (1).

Biosafety requirements
1. WMU expressly prohibits the use and/or storage of Class 4 agents as listed in the National Institutes of Health guidelines, unless a Biosafety Level 4 facility is constructed.
2. No work may be conducted with restricted animal pathogens as listed in Appendix D to the BMBL, which are strictly prohibited by law or by the U. S. Department of Agriculture.
**Export Control Policy**

U.S. export control laws regulate certain transfers of technology to foreign nationals and the physical export of hardware and software. WMU’s policy ensures the University's compliance with these laws.

U.S. export control laws, including the Export Administration Regulations (EAR), the International Traffic in Arms Regulations (ITAR), and the U.S. Department of Treasury, Office of Foreign Assets Control (OFAC) sanction regulations, require that WMU obtain an export license prior to providing controlled technologies to certain foreign nationals, employees, professors, students, researchers, or other foreign national collaborators.

Information generated during the course of “fundamental research” as defined under such laws is exempt from export licensing requirements.

The OVPR is committed to educating our faculty, staff, students, and other collaborators regarding U.S. export control laws and regulations and their application within the University setting.

OVPR staff members will assist with the process of export control review and education. The Research Compliance Coordinator (RCC) ensures institutional compliance with federal, state, and University regulations, policies, and procedures, especially those associated with externally-funded activities.

Scholarly activities, including research and instruction, regardless of the funding source, may be subject to specific compliance regulations. It is the responsibility of faculty, staff, and students to comply with relevant policies and procedures prior to and during the conduct of such activities.

For more information regarding compliance policies and procedures, go to www.wmich.edu/research/compliance or call the associate director research compliance at 269-387-8293.
V. University Policies Governing Research

Distribution and Collection of Facilities and Administrative (F&A) Costs

Facilities and administrative costs, formerly called indirect costs, are funds above the direct costs of the project provided to the University to defray some of the costs of infrastructure investment and administrative functions that enable and maintain the sponsored project.

The University F&A rate is set via a formal negotiation process with the U.S. Department of Health and Human Services that occurs every few years. The rate is derived from a number of factors such as the value of equipment and the amount of space used for research and other such costs. Currently our negotiated F&A rate is 51% of allowable direct costs.

Recovered F&A costs are important to research at WMU. A major goal for improving research at WMU is to increase the overall amount of F&A recovered from funded projects. It is University policy that grant and contract budgets request the full rate unless:

- The project is located in facilities off campus and rent for such facilities is included as a direct cost
- The agency has a policy or the RFP requires that F&A recovery is limited to a lower rate
- The VP for research agrees to a reduced rate in advance

WMU has a generous return policy which distributes 40% of the total F&A received from funding agencies to the college, department, and PI from whose projects these costs were recovered. Millions of dollars have been distributed to these units. Critically important to research at WMU, recovered F&A is used to support research activities through such investments as cost share, startup resources, travel funds, and to address other needs significant to all researchers.

Intellectual Property Policy

The principal rights that govern the ownership and disposition of new technologies and discoveries are known as “intellectual property” (IP) rights. IP rights are derived primarily from legislation and common law granting patent, copyright, trademark, trade secret, and integrated circuit mask work protections. A copy of the IP Policy is available online at www.wmich.edu/research/policies/intellectual.

WMU Research Misconduct Policy and Procedures

The WMU Research Misconduct Policy and Procedures apply to: (a) the conduct of research and/or related activities, whether or not the research is externally funded; (b) the presentation and/or publication of results; (c) the process of applying for funds; (d) the expenditure of project funds; and (e) the fiscal reporting on the use of project funds.
WMU faculty members, students, trainees, or any member of the staff found to have committed research misconduct are subject to discipline, up to and including discharge or expulsion. In addition the findings will, where appropriate, be reported to external entities or authorities; the external entity or authority may take additional action.

Research misconduct includes, but is not limited to, the following: (a) fabrication of data; (b) falsification of data; (c) plagiarism; (d) abuse of confidentiality; (e) misuse of data or failure to comply with HSIRB and other University policies; and (f) financial misconduct.

A finding of misconduct requires a significant departure from accepted practices of the relevant research community; that the misconduct be committed intentionally, knowingly, or recklessly; and that the allegation be proven by a preponderance of the evidence.

Disciplinary action proceedings shall be in accordance with applicable University policies, codes, procedures, and/or collective bargaining agreements. A copy of the Research Misconduct Policy and Procedure Manual is available at: www.wmich.edu/research/policies/misconduct.

Policy for Signature Authority on Grants and Contracts

Most grants and all contracts and subcontracts issued to the University require signatures from both the sponsor and the University. In some cases the University signature will have been provided when the proposal was submitted. The proposal then becomes a part of the grant document either directly or by reference.

For a contract to be valid and enforceable, it must be signed by a person with specific statutory authority to sign on behalf of the University.

The following outlines such authority:

Proposals — The VP and associate VP for research are authorized to sign proposal submissions on behalf of WMU.

Contracts up to $50,000 — The VP and associate VP for research are authorized to sign research-related contracts up to $50,000.

Contracts $50,000 and over — The VP and associate VP for business and finance are authorized to sign contracts $50,000 and over that result from grant proposals.

This policy requires that proposal or award documents must be signed by an authorized University official prior to submission.
WMU Data Rights Policy Statement

WMU is committed to excellence in research. Both the University and the principal investigator (PI) have responsibilities and rights that concern the access to, use of, and maintenance of original research records.

This policy applies to all WMU faculty and staff members, students, and others participating in WMU programs, including visitors, for activities conducted at WMU, under its auspices, or utilizing WMU resources and which become incorporated into a final work, database, intellectual property (IP), scholarly work, or other product.

The PI as herein mentioned refers to the WMU employee directing the activity which leads to the creation of the research records. For research work done in partial fulfillment of a thesis or dissertation, the committee chair will be considered the PI. If the chair is not a WMU faculty member, a WMU committee member will be appointed to this role by the committee.

Whenever WMU faculty members, students, and others (including visitors) are acting as agents of the institution or have generated research under work for hire, the Board of Trustees will own the research records.

WMU’s rights regarding research records for projects conducted under its auspices or with its resources are based on regulations and sound management principles. WMU’s responsibilities include:

1. Complying with the terms of sponsored project agreements;
2. Ensuring the appropriate use of animals, human subjects, recombinant DNA, etiological agents, radioactive materials, etc.;
3. Protecting the rights of students, scholars, and staff, including but not limited to, their rights to access data from research in which they participated;
4. Securing intellectual property rights;
5. Facilitating the investigation of charges, such as scientific misconduct or conflict of interest.

Research records must be retained with access available for a minimum of four years after completion of the activity, with original data retained whenever possible. Exceptions to this are specified in the full IP policy statement, available at www.wmich.edu/research/policies/intellectual

Transfer of data in the event a researcher leaves WMU must be addressed as well. When an individual researcher leaves WMU, he/she may take copies of the research record which he/she has generated. WMU will have access to or retain copies of such research records for projects continuing at WMU after the researcher leaves.
**Investigator Significant Financial Disclosure Policy for Sponsored Projects**

WMU’s general policy and procedures regarding significant financial conflicts of interest serve to protect the credibility and integrity of the University, thereby ensuring public trust and confidence in the University’s sponsored research activities.

In accordance with federal regulations, the University has a responsibility to manage, reduce, or eliminate conflicts of interest that may be presented by a financial interest of an investigator. Thus, the University requires that investigators disclose any significant financial interest that may present a conflict of interest in relationship with a sponsored project. This policy applies to all externally sponsored projects, regardless of funding source.

In addition, some agencies, such as the National Institutes of Health, have enacted conflict of interest rules and regulations specific to PIs and projects funded through their programs. Investigators should contact their research officer and/or compliance coordinator to discuss policies associated with specific agencies.

For more information on specific policies that govern research protocols and projects, see [www.wmich.edu/research/policies](http://www.wmich.edu/research/policies).
VI. Grants and Contracts Administration

Sponsored projects are administered in the Grants and Contracts Office. This office is primarily responsible for the following:

- Advising appropriate University officials on matters relating to federal and state laws, University rules, regulations, and policies that pertain to fiscal management of sponsored research;

- Ensuring that the business interests of the University are protected in the terms of proposed agreements and throughout the operation of such agreements;

- Determining that the University complies with all provisions of contracts, grants, or agreements entered into with external sponsors;

- Maintaining auditable records in support of direct and indirect charges to contracts, grants, or agreements;

- Preparing and submitting billings and fiscal reports required by sponsors; and

- Negotiating the F&A rate with the cognizant agency, which includes organizing and preparing the facilities and administrative (F&A) documentation such as expenditure and space utilization analyses.

Fiscal analysts in the Grants and Contracts Office are the primary contacts for issues related to the administration of externally-funded projects once they are awarded. Assigned to work with specific constituencies, project fiscal analysts can assist PIs with such functions as pre-award spending, budget transfers, documentation of payment to research subjects, time and effort certification, and providing annual expenditure information for required progress reports.

For a full listing of staff, constituent areas, policies and procedures, and contacts, go to the Grants and Contracts Office website at www.wmich.edu/grantscontracts.

For information on proposal preparation and budget guidelines, including information on fringe benefits and rates, go to the OVPR website, select the Research and Proposal Development Tools tab and follow the link to Budget Guidelines.

For more details on funding sources or the OVPR, visit the web at www.wmich.edu/research and follow the links.
For additional information, contact:

OVPR

(269) 387-8270

www.wmich.edu/research

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