# **Evidence Submission**

# Research/Scholarship Policies and Procedures

## **Student Research and Scholarship Policies and Procedures**

The Student Research and Scholarship Policies and Procedures described within this document are designed to provide guidelines and protocols that support and regulate student engagement in research and scholarship at DYU-COM. This section outlines the vision and goals for student research, standards for student involvement, application processes, faculty supervision, resources and ethical considerations, and research follow-up protocols required of students. By establishing these policies and procedures, we aim to foster a structured and supportive environment that encourages student participation in research, enhances their academic experience, and contributes to the advancement of osteopathic medicine.

#### **Vision and Goals**

Student participation in research and scholarly activity at DYU-COM will be strongly encouraged. For an osteopathic medical student, this will be beneficial for their career enhancement while providing a clearer understanding of foundational knowledge and clinical skills. Participation in research and scholarly activity would help the medical students appreciate and retain what they will learn in the classrooms and clinical skills labs. The opportunity to participate in such academic activities will also improve skills in critical thinking, and data analytics, and support the development of a well-rounded physician. Upon the completion of medical school at DYU-COM, the goal is to educate all students to be capable of answering questions from patients regarding the latest technological advancement, be able to effectively analyze questions in their board exams and possess the research skills and experience to be a competitive candidate for admission to residency programs.

## Standards for Student Involvement in Research

All medical students interested in participating in research will have to undergo training in the standards of research, ethics, compliance, and safety. This will be provided by the Collaborative Institutional Training Initiative (CITI) program. (https://about.citiprogram.org/)

The CITI program will require the completion of learning modules on various protocols like the HIPAA, the Biomedical Research Refresher courses and Biohazard Safety, and the Institutional Animal Care and Use Committee (IACUC) training for conducting research with animals. Students named on a human subject research proposal must also complete the following training modules before beginning their project, as determined by the DYU-COM Research Committee

- 1. The Most Applicable Responsible Conduct Research (RCR) module to the project:
  - Biomedical RCR
  - Social and Behavioral RCR
- 2. AND one (1) of the following additional research modules:
  - Biomedical Research
  - Social and Behavioral Research
  - Biomedical Data
  - Specimens Only Research

Any student requesting access to a DYU-COM research laboratory must also complete any relevant training modules listed below that apply to their project before security card reader access is granted. Students must keep current on training to ensure ongoing access to the laboratory.

- Biomedical Research
- Biomedical RCR
- Initial biosafety training
- NIH Recombinant DNA Guidelines
- OSHA Bloodborne Pathogens
- Hazard communication
- Lab Chemical and Radiation Safety
- Institutional Biosafety Plan
- Institutional Chemical Hygiene Plan
- Institutional Laboratory Safety Agreement and Access Policy

# **Application Processes and Procedures**

Students with a research plan will need to submit their proposal to the DYU-COM Research Committee (and in the case of human subject research the Parent Institution IRB), then be granted approval before they can start their research or scholarly activity. The exact steps that need to be completed by the student, in conjunction with their faculty mentor, to start a project, are as follows:

**Full Proposal:** Applicants must provide a description of their research intent, including the student's info, identification of other participants (e.g., lab technicians and graduate students), identification of faculty mentor(s), proposed title of the study, rationale and justification, research question and hypotheses, space where this research will be conducted, overview of research methodology, timeline, and source of funding.

The Full Proposal must be signed by the faculty mentor before submission to the DYU-COM Research Committee. The Full Proposal should include an expanded account of details describing the research project.

**IRB Application:** In the event an application is approved by the DYU-COM Research Committee, and it involves human subject research, then students must also submit a research application to the Parent Institution's IRB to seek approval before commencing research.

Application Grading Rubric: The DYU-COM Research Committee will review the proposal and determine feasibility using a grading rubric system that evaluates the proposal on a 0–100-point scale. The proposal can be accepted, sent back for modification, or rejected. There will be an annual review for all projects longer than a year. A final report will have to be submitted irrespective of results and outcomes. This research application grading rubric is intended to ensure a comprehensive evaluation of research applications, providing clear criteria, and scoring guidelines to facilitate objective and consistent reviews. Additional details on the application grading scale are as follows:

- Excellent (90-100 points): App meets all criteria with high quality and strong justification.
- Good (70-89 points): App meets most criteria with minor weaknesses/areas for improvement.
- Fair (50-69 points): App meets some criteria but has significant weaknesses or gaps.
- Poor (Below 50 points): App does not meet most criteria and requires substantial revision.

Criteria	Description	Points	Scoring Guidelines	
Alignment	Alignment to the four major research priorities of DYU-COM.	0-10	0-5: Poor budget alignment. 6-8: Adequate alignment. 9-10: Excellent alignment.	
Significance	Importance of the research and its potential impact on the field.	0-15	0-7: Minimal significance. 8-10: Moderate significance. 11-15: High significance.	
Originality	Novelty of the research approach or hypothesis.	0-15	0-7: Minimal innovation. 8-10: Some innovation. 11-15: Highly innovative.	
Methodology	Rigor and appropriateness of the research design and methods.	0-15	0-7: Inadequate methodology. 8-10: Adequate methodology. 11-15: Strong methodology.	
Feasibility	Realistic nature of the research plan and timeline for completion.	0-15	0-7: Unfeasible. 8-10: Somewhat feasible. 11-15: Highly feasible.	
Budget	Justification of the budget and effective use of resources.	0-10	0-5: Poor budget justification. 6-8: Adequate justification. 9-10: Excellent justification.	
Team and Expertise	Qualifications and experience of the research team members.	0-5	<ul><li>0-2: Inadequate qualifications.</li><li>3-4: Adequate qualifications.</li><li>5: Highly qualified.</li></ul>	
Ethical Considerations	Adherence to ethical guidelines and considerations.	0-10	<ul><li>0-5: Inadequate ethical considerations.</li><li>6-8: Adequate considerations.</li><li>9-10: Excellent ethical considerations.</li></ul>	
Dissemination Plan	Plan for sharing research findings and results.	0-10	0-5: Weak dissemination plan. 6-8: Adequate plan. 9-10: Strong plan.	
Total			100 Possible Points	

**Application Acceptance:** If accepted, the student will receive an email notification from the DYU-COM Research Committee and be required to undergo CITI training before starting their project.

## <u>Special Considerations:</u>

- 1. Projects aligned to the DYU-COM major focus area of cultural competency and community health disparities will be strongly favored.
- 2. Collaboration with faculty/departments with established projects at DYU-COM will be favored because of convenience, access, and control over accountability.
- 3. Projects with strong communication plans that strengthen the culture of research at DYU-COM will be strongly favored.

# **Faculty Mentor Supervision**

Students will work under the guidance and supervision of faculty mentors. Students interested in research will have some time reserved to work on research in their academic schedule, typically Friday afternoons. However, since research is an ongoing process, and may require work on a more frequent basis, every effort will be made to accommodate such a timeline.

Projects must include faculty mentors who are experts in that subject/field, whether at DYU-COM or other affiliated schools, centers, and/or labs. Upon availability and interest, medical students may also participate in interdisciplinary projects with other Health Professions such as Pharmacy, Chiropractic, Nursing, Physician Assistant, Speech and Language Pathology, Occupational Therapy, Physical Therapy, Dietetics and Nutrition, Mental Health Counseling, Health Care Administration, and in the Natural Sciences departments.

### Other Student Research Resources

DYU-COM aims to make critical resources, tools, and facilities available to support students engaged in research. An example of such include but are not limited to state-of-the-art laboratories, specialized research equipment, academic databases, funding opportunities, digital tools for statistical analysis and manuscript preparation. In terms of digital library catalogs, students will have online access to major research resources including PubMed, ScienceDirect, and EBSCO. There will also be a travel budget for posters and presentations at regional and national meetings and conventions. By detailing these resources, we aim to highlight DYU-COM's commitment to students by equipping them with the essential tools and support needed to achieve their research goals and drive academic excellence

# **Research Follow-up and Publication**

Following the completion of a student research project, students are expected to analyze the data and write a research report that follows the major sections of a research manuscript with minimal assistance. One example of the major sections of a research manuscript include:

- Title (please be concise, yet descriptive)
- **Abstract** (must synthesize all sections of the manuscript)
- Introduction (overview of the background, problem, significance, and originality)
- Literature Review (overview of related research and support of the research gap)
- Methodology (research design, participants/setting, data collection, and analysis procedures)
- Results (presentation of demographics, research findings, including data and statistics)
- Discussion (interpretation/analysis of results, including implications/relation to prior work)

- Conclusion (concise summary of major findings, implications, limitations, and future research)
- Acknowledgements and Conflict of Interest Statement
- References and Appendices

#### **Communication and Research Dissemination**

Students will be encouraged to submit posters and presentations to seminars, meetings, and conferences. Some examples of these events and conferences include those of the New York State Osteopathic Medical Society, the American Osteopathic Association, the American Academy of Osteopaths, and the National Osteopathic Medical Association. Students may also present at universities in the region or country.

Depending on the overall quantity of research outcomes, DYU-COM will either organize its own or participate in the annual research day of the Parent Institution, D'Youville University. At this annual research event, students will be asked to display and discuss their research with conference attendees. Any student who is awarded funding from DYU-COM or its Parent Institution will be required to participate in the annual research event.

# **Expectations of Ethics and Academic Integrity**

Following the completion of significant work, students will be encouraged to pursue publication in high-quality peer-reviewed, indexed journals in collaboration with their faculty mentors. Cheating, falsification of data or documentation, plagiarism, and any unethical behavior at any step of their research activity will be subject to strict disciplinary action.

Responsible Unit: DYU-COM Leadership

Adoption Date: April 17, 2023 Last Review Date: Sept. 5, 2024 Next Review Date: April 17, 2027

#### More information is available at:

https://www.dyu.edu/academics/schools-and-departments/proposed-college-osteopathic-medicine/dyu-com-policies-procedures





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#### **Policies & Procedures**





#### **DYU-COM Policy & Procedures**

DYU-COM Completion of COCA Survey Policy
 DYU-COM Policy and Procedures on Comparability Across Clinical Education Sites

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