

CHEM 4850 - Chemistry Research

Fall 2026 Syllabus, Section 01, CRN 41067,

Credit hours: 1

Instructor

Dr. Nina V. Stourman

Professional Qualifications:

Ph. D., Bioorganic Chemistry and Chemistry of Natural Physiologically Active Compounds, Moscow State University, Russia
BS/MS Chemistry, Moscow State University, Russia

Professor

Email: nvstourman@ysu.edu

Office: WBH 6027

Public Instructor Information

Instructor Title: Professor

Instructor Professional Qualifications:

- Ph. D., Bioorganic Chemistry and Chemistry of Natural Physiologically Active Compounds, Moscow State University, Russia

Instructor Office Location: WBH 6027

Instructor Office Phone: 330-941-7112

Course Description

4850. Chemistry Research. Research planning, design, and execution including literature survey techniques, proposal writing, and critical scientific analysis. Students will prepare a written research proposal for CHEM 4851, or another topic as approved by the instructor, and give an oral presentation. Approval of instructor required. Prereq.: "C" or better in CHEM 2604 or CHEM 3719. 1 s.h.

Course Readings

Group	Title	Author	ISBN
	No textbook		

There is no prescribed textbook. Students will read multiple scientific papers, selected by the instructor or by students themselves based on their chosen topics. The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Schedule of Topics and Assignments

Day	Date	Proposed Topic	Due/To Prepare for Class
Fri	8/28	Introduction. What is Research?	
Fri	9/4	Scientific Paper	
Fri	9/11	The Literature Search	
Fri	9/18	Scientific Writing/Literature Review	Research Topic Summary
Fri	9/25	The Research Proposal Research Problem and Specific Aims	Selection of Five Articles for Review
Fri	10/2	Methods vs Methodology Research Design	

Fri	10/9	Keeping Research Records	Literature Review (draft) Research Proposal Idea
Fri	10/16	Short Presentations of Proposal idea and Specific aims	
Fri	10/23	Short Presentations of Experimental Design	Literature Review (final)
Fri	10/30	Short Presentations of Experimental Design	Two Specific Aims for Proposal
Fri	11/6	Ethical Standards in Research	Experimental Design for Proposal
Fri	11/13	Making Effective Oral Presentations	Written Proposal (draft)
Fri	11/20	Oral presentations by students	
Fri	11/27		
Fri	12/4	Oral presentations by students	Written Proposal (final)
Fri	12/11		

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.