

From: [Smith, Randy](#)
To: [Drew, Mark](#)
Cc: [Leite, Fabio](#); [Reed, Katie](#); [Smith, Randy](#); [Miriti, Maria](#); [Clinchot, Dan](#); [Oltz, Eugene](#); [Bradford, Carol](#); [Hunt, Ryan](#); [Duffy, Lisa](#)
Subject: Revision to the MS Immunology and Microbial Pathogenesis Program
Date: Thursday, March 7, 2024 3:18:41 PM
Attachments: [image001.png](#)

Mark,

The proposal from the Department of Microbial Infection and Immunity to revise its Master of Science Immunology and Microbial Pathogenesis Program to include a non-theses track option, was approved by the Council on Academic Affairs at its meeting on March 6, 2024. Thank you for attending the meeting to respond to questions/comments.

No additional level of internal review/approval is necessary. This action will be included in the Council's next [Annual Activities Report](#) to the University Senate (July 2024).

The Office of the University Registrar will work you with any implementation issues.

Please keep a copy of this message for your file on the proposal and I will do the same for the file in the Office of Academic Affairs.

If you have any questions please contact the Chair of the Council, Professor Fábio Leite (.11), or me.

Randy



W. Randy Smith, Ph.D.

Vice Provost for Academic Programs

Office of Academic Affairs

University Square South, 15 E. 15th Avenue, Columbus, OH 43201

614-292-5881 Office

smith.70@osu.edu

Assisted by:

Katie Reed

Executive Assistant

(614) 292-5672

reed.901@osu.edu

TO: Randy Smith, Vice Provost for Academic Programs

FROM: Graduate School Curriculum Services

DATE: **2/06/2024**

RE: Proposal to **Add a Non-Thesis option to the MS Program in Immunology and Microbial Pathogenesis** in **College of Medicine**

The **Department of Microbial Infection and Immunity** in the **College of Medicine** is proposing a **Addition of Non-Thesis Track option to the Master of Science in Immunology and Microbial Pathogenesis.**

The proposal was received by the Graduate School on **11/09/2023**. The combined GS/CAA subcommittee first reviewed the proposal on **10/31/2023** and requested revisions. Revisions were received on **12/06/2023**. GS/CAA conducted a second review of the proposal and recommended it for approval 1/17/2024 with minor clarifications. These requested clarifications have been addressed and the proposal is recommended for elevation to CAA.

Proposal to add a non-thesis option to the MS Program in Immunology and Microbial Pathogenesis



THE OHIO STATE UNIVERSITY

COLLEGE OF MEDICINE

Request for Addition of Non-Thesis Track Option to the Master of Science in Immunology and Microbial Pathogenesis Program

The Ohio State University College of Medicine, Department of Microbial Infection and Immunity

Proposal to add a non-thesis option to the MS Program in Immunology and Microbial Pathogenesis



THE OHIO STATE UNIVERSITY
COLLEGE OF MEDICINE

Microbial Infection and Immunity

Eugene Oltz, PhD, Chair
Samuel Saslaw Professor of
Infectious Diseases

July 13, 2023

W. Randy Smith, Ph.D.
Vice Provost, Academic Programs
Office of Academic Affairs
203 Bricker Hall
190 North Oval Mall

776A Biomedical Research Tower
460 W. 12th Avenue
Columbus, OH 43210-2210
Phone: 614-292-0918

Dear Dr. Smith,

The Department of Microbial Infection and Immunity is submitting a proposal for a degree revision to our Master of Science in Immunology and Microbial Pathogenesis graduate program. This revision seeks to add an optional, non-thesis track to the program for those applicants with strong research backgrounds. If approved, this track would constitute a less than 50% change from the existing thesis-based curriculum. I am highly supportive of the revision, as are the department's faculty. Dr. Daniel Clinchot, Vice Dean of Education for the College of Medicine, has reviewed the proposal and lends his strong support (letter included). For any questions related to the proposal, please reach out to me or our Director of Graduate Education, Dr. Mark Drew (mark.drew@osumc.edu).

Thank you in advance for your consideration.

Sincerely,

Eugene Oltz, PhD
Professor and Chair
Samuel Saslaw Professor of Infectious Diseases
Department of Microbial Infection and Immunity
College of Medicine

Proposal to add a non-thesis option to the MS Program in Immunology and Microbial Pathogenesis

Narrative of the rationale and motivation for the revision including anticipated benefits for participants and admission requirements.....4

Statement of what percentage of the existing program is changing and a summary of how the percentage change was calculated:.....6

*Side-by Side Comparison of Proposed Curricula (current thesis track vs. non-thesis track).
Note: all courses are currently in-person at the Columbus campus.....7*

Revised advising sheets for student use tracking their progress through the program10

Student Advising (from currently approved program).....10

Syllabi for all new courses OR courses that will be changing in delivery format or credit hour (if any).....12

Statement of whether learning goals, program objectives, and/or the assessment plan will change13

Appendix A - Letters of Support.....15

Appendix B – Recommended Electives.....17

Proposal to add a non-thesis option to the MS Program in Immunology and Microbial Pathogenesis

Narrative of the rationale and motivation for the revision including anticipated benefits for participants and admission requirements

Narrative of the rationale:

This proposal seeks to revise the current Master of Science in Immunology and Microbial Pathogenesis Program to offer an optional non-thesis track. The current program, a research-based thesis track is currently the only option for the Program. The new track will afford students that have significant prior research training (see “Admission to the non-thesis track”, below) to earn the MS degree through completion of an expanded curriculum of didactic coursework. This track’s required curriculum will benefit students who have sufficient previous independent research training by providing an extended depth of knowledge in the Program’s core areas of immunology and microbial pathogenesis. The proposed curriculum for this track can be completed in five full-time, consecutive semesters of coursework, as does the current thesis-track option.

Motivation for the revision including anticipated benefits:

Our motivation to offer this track stems from a need we have seen since we conceived of our thesis-track curriculum. In general, there is a pool of applicants who are eager to earn their master’s degree in the fields of immunology and microbial pathogenesis who already possess the research skills that make up a significant component of our program’s objective. More specifically, since our initial admit cycle in 2022, we have had numerous enquiries from applicants who are only interested in this non-thesis option. Many of these potential students have been actively employed in research laboratories (both academic and industry) as technicians and/or lab managers. These potential applicants are seeking an MS degree primarily to expand their foundational knowledge and also to open them to higher paying job opportunities. For these research-experienced applicants, a non-thesis option would provide a curriculum which is more focused on their needs, thus maximizing their time, effort, and expenses in graduate school.

Beyond addressing the needs of potential applicants, examples of where a non-thesis track option would be a more appropriate choice for an applicant can be seen in our recent potential and current students. First, since we do not offer this option, a current full-time lab manager in the Department of Microbial Infection and Immunity chose instead to apply and was admitted to a similar (yet distinct in course content), non-thesis MS program in Microbiology (OSU College of Arts and Sciences). The Microbiology MS program is excellent, however the proposed curriculum for our option could have been more relevant to the applicant’s area of research within their current laboratory. Second, our program currently enrolls two students who are employed in research full-time and would have been strong candidates for a non-thesis option. One works full-time in at Nationwide Children’s Research Institute, and one is employed at a recent biotech startup. In these cases, their research skill set is already at, or above, the level of what our program seeks to deliver. A non-thesis option would have provided them with a curriculum that would better address their needs, translating into a higher value for their tuition costs.

Proposal to add a non-thesis option to the MS Program in Immunology and Microbial Pathogenesis

For these examples, we feel that applicants with significant research experience, an interest in immunology and microbial pathogenesis, and a desire for a master's degree would benefit professionally from a non-thesis option for the MS Program in Immunology and Microbial Pathogenesis.

Admission requirements:

The current thesis track admits students from a variety of pathways and defines the qualifications for admission rather loosely, in the following way: "As potential research thesis focus areas within the program are diverse, students accepted into to the program are likely to have varying backgrounds of both formal educational and professional experience. Students will be expected however to hold a Bachelor's degree in the biological sciences and are seeking to advance their knowledge and skills to increase their chances for employment and/or increase their earning potential in relevant research positions."

For this proposed, non-thesis option, we define the admissions qualifications as follows:

"Students accepted into to the non-thesis option will hold a Bachelor's degree in the biological sciences and have demonstrated significant laboratory research experience and skills.

"Significant research experience" is defined as approximately 6 months of cumulative research as a volunteer or employee in a relevant research or clinical laboratory, this being an approximate hourly equivalent to the independent research required for the thesis option (16 credit hours x 14-week semester average x 4 lab hours/credit multiplier). Applicants with significant undergraduate research experience (e.g., ≥ 2 years continual research in a relevant academic laboratory including a letter of recommendation by the PI/lab head attesting to the applicant's skillset and level of independence) could also be considered for acceptance."

Employment experience, lab skills, and level of research independence will be verified by contact with the employer or PI/laboratory head.

Proposal to add a non-thesis option to the MS Program in Immunology and Microbial Pathogenesis

Statement of what percentage of the existing program is changing and a summary of how the percentage change was calculated:

The percent change to the existing thesis track will change by the removal of 6 independent research courses and one thesis writing course, replacing them with didactic, classroom coursework. This represents a percent change of 33% to the required courses (6 out of 18) and a 40% change on a credit hour basis (16 research-based credits replaced with 17 non-research credits).

Proposal to add a non-thesis option to the MS Program in Immunology and Microbial Pathogenesis

Side-by Side Comparison of Proposed Curricula (current thesis track vs. non-thesis track).

Note: all courses are currently in-person at the Columbus campus

CURRENT THESIS TRACK CURRICULUM	CREDIT HOURS	PROPOSED NON-THESIS TRACK CURRICULUM	CREDIT HOURS	CHANGE IN CREDIT HOURS
AUTUMN Y1				
MEDMCIM 7050: MI&I Laboratory Scientific and Management Skills	2	MEDMCIM 7050: MI&I Laboratory Scientific and Management Skills	2	NC
BSGP 7240: Molecular Pathogenesis	3	MEDMCIM 7010: Molecular and Cellular Immunology	3	NC (note this reflects and upcoming Au/Sp swap of these courses to begin Au24, not specific to non-thesis option)
MEDMCIM 7500: Recent Discoveries in Immunology and Microbial Pathogenesis	1	MEDMCIM 7500: Recent Discoveries in Immunology and Microbial Pathogenesis	1	NC
MEDMCIM 7998: MI&I Laboratory Rotations	2	OMIT	-2	-2 research credits -1 research course
		Add - BIOETHC 6010: Biomedical Research Ethics	+3	+3 NR credits +1 NR course
Semester Total	8		9	-2 research credits +3 NR credits 0 net # ofcourses

SPRING Y1				
MEDMCIM 7010: Molecular and Cellular Immunology	3	BSGP 7240: Molecular Pathogenesis	3	NC (Au/Sp swap)
MEDMCIM 7500: Recent Discoveries in Immunology and Microbial Pathogenesis	1	MEDMCIM 7500: Recent Discoveries in Immunology and Microbial Pathogenesis	1	NC
Elective	2		2	NC

Proposal to add a non-thesis option to the MS Program in Immunology and Microbial Pathogenesis

MEDMCIM 7998: MI&I Graduate Research	2	OMIT	-2	-2 research credits -1 course
		Elective*	≥ 2	+2 NR credits +1 NR course
Semester Total	8		8	-2 research credits +2 NR credits 0 net # of courses

Summer Y1				
Elective*	≥ 3	Elective*	3	NC
		Elective*	+2	+2 NR credits +1 NR course
		Elective*	+3	+3 NR credits +1 NR course
MEDMCIM 7998: MI&I Graduate Research	≥ 5	OMIT	-5	-5 research credits
Semester Total	8		8	-5 research credits + 5 NR credits +2 net # of courses

Autumn Y2				
MEDMCIM 7500: Recent Discoveries in Immunology and Microbial Pathogenesis	1	MEDMCIM 7500: Recent Discoveries in Immunology and Microbial Pathogenesis	1	NC
Elective*	2	Elective*	2	NC
BSGP 7400: Advanced Topics in Microbial Pathogenesis	2	BSGP 7400: Advanced Topics in Microbial Pathogenesis	2	
MEDMCIM 8010: Advanced Topics in Immunology	or 3	MEDMCIM 8010: Advanced Topics in Immunology	and 3	+2 or +3 NR credits +1 NR course
MEDMCIM 7998: MI&I Graduate Research	≥ 3	OMIT		-3 research credits -1 research course
Semester Total	8(9)		8	-3 research credits +2 or +3 NR credits

Proposal to add a non-thesis option to the MS Program in Immunology and Microbial Pathogenesis

				0 net # of courses
Spring Y2				
MEDMCIM 7500: Recent Discoveries in Immunology and Microbial Pathogenesis	1	MEDMCIM 7500: Recent Discoveries in Immunology and Microbial Pathogenesis	1	NC
Elective*	2	Elective*	3	+1 NR credit
MEDMCIM 7998: MI&I Graduate Research	4	OMIT	-4	-4 research credits -1 research course
MEDMCIM 7XXX: Thesis Writing	1	OMIT		-1 research credits -1 research course
		Elective*	+3	+3 NR credits +1 course
Semester Total	8		8	-4 research credits +4 NR credit -1 net # of courses

Total Program Credit Hours	40 (16 research)		41 (0 research)	-16 research credits +17 NR credits
Total # Courses	18		18	-6 research courses +7 NR courses
Percent Curriculum Change (thesis-based to non thesis-based)				33.3% by # of courses 40% by # of credits

* See Appendix B for a list of recommended electives

Proposal to add a non-thesis option to the MS Program in Immunology and Microbial Pathogenesis

Revised advising sheets for student use tracking their progress through the program

Note: No changes are needed to the current advising sheet (below) for the proposed new track.

Student Advising (from currently approved program)

Date: _____
 Student Name: _____
 OSU email address: _____
 Entering Term: _____

Coursework Completed

Course	Term and Year (e.g Sp21)	Grade Earned

Coursework in Progress

Course	Term and Year	Grading Structure (letter, P/NP)

Coursework Remaining for Degree Completion

Course	Expected Year and Term	Grading Structure (letter, P/NP)

Proposal to add a non-thesis option to the MS Program in Immunology and Microbial Pathogenesis

1

The Ohio State University
MS in Immunology and Microbial Pathogenesis

Total Credit Hours Completed to Date: _____
Cumulative GPA to Date: _____
Total Credit Hours Remaining for Graduation _____
Expected Date of Graduation _____

Student Signature: _____
Date: _____

Program Advisor Signature _____
Date: _____

Proposal to add a non-thesis option to the MS Program in Immunology and Microbial Pathogenesis

Syllabi for all new courses OR courses that will be changing in delivery format or credit hour (if any)

There are no new courses related to this proposal and no changes in credit hours or delivery. All courses are to be delivered in-person at the Columbus campus.

Proposal to add a non-thesis option to the MS Program in Immunology and Microbial Pathogenesis

Statement of whether learning goals, program objectives, and/or the assessment plan will change

The learning goals, objectives, and assessment plan (below) for the current thesis track will not change. For the non-thesis track, independent research training will not be required. A minor change to the assessment plan for the non-thesis track is indicated in the table below.

Current Assessment Plan (changes highlighted in yellow):

Assessment	Primary Metrics	Reporting/Review Frequency	Administered by	Reviewed by	Alignment between Program Goals and Assessments
Program application and enrollment data	Tracking of of applications, applicant GPAs, applicant diversity, offer and acceptance rates	Annually, Sp term	Program Director/Administrative Assistant	Program Faculty Committee and posted on Program website	Assessment of program strengths and weaknesses in recruitment (e.g. low applicant diversity, trends in average GPA) to help meet program enrollment goals
Program academic performance	Time-to-degree tracking, average GPA, publication and presentation data	Annually, Sp term	Program director/Administrative Assistant	Program Faculty Committee	Assessment to evaluate program performance (e.g. employment/placement rates) to meet quality of program
Student academic performance	GPA, research advisor and thesis committee evaluations	Beginning of each academic term (Au, Sp, Su)	Administrative Assistant	Program Director	Assessment of student progress to meet GPA and expected graduation date.
Student satisfaction	Student evaluations of instruction (SEIs), one-on-one advisory meetings, exit surveys	Beginning of each academic term (Au, Sp, Su) and upon graduation (exit surveys)	Administrative Assistant and Program Director	Program Faculty Committee	Assessment used by the program to provide feedback to the program and course directors to ensure student expectations are met
Faculty satisfaction	Program faculty reviews	Annually, Sp term	Administrative Assistant	Program Faculty Committee	Assessment to monitor and maintain faculty enthusiasm and support of the program to continually improve the student course and lab research experience
Program Performance	Alumni career recording	Annually, Au term	Administrative Assistant	Program Faculty Committee, Posted on Program website	Assessment to evaluate program graduate employment success to help meet the overall goal of the program.

Non-research Track Assessment Plan (changes highlighted in yellow):

Assessment	Primary Metrics	Reporting/Review Frequency	Administered by	Reviewed by	Alignment between Program Goals and Assessments
Program application and enrollment data	Tracking of of applications, applicant GPAs, applicant diversity, offer and acceptance rates	Annually, Sp term	Program Director/Administrative Assistant	Program Faculty Committee and posted on Program website	Assessment of program strengths and weaknesses in recruitment (e.g. low applicant diversity, trends in average GPA)

Proposal to add a non-thesis option to the MS Program in Immunology and Microbial Pathogenesis

					to help meet program enrollment goals
Program academic performance	Time-to-degree tracking, average GPA, publication and presentation data	Annually, Sp term	Program director/Administrative Assistant	Program Faculty Committee	Assessment to evaluate program performance (e.g. employment/placement rates) to meet quality of program
Student academic performance	GPA, research advisor and thesis committee evaluations	Beginning of each academic term (Au, Sp, Su)	Administrative Assistant	Program Director	Assessment of student progress to meet GPA and expected graduation date.
Student satisfaction	Student evaluations of instruction (SEIs), one-on-one advisory meetings, exit surveys	Beginning of each academic term (Au, Sp, Su) and upon graduation (exit surveys)	Administrative Assistant and Program Director	Program Faculty Committee	Assessment used by the program to provide feedback to the program and course directors to ensure student expectations are met
Faculty satisfaction	Program faculty reviews	Annually, Sp term	Administrative Assistant	Program Faculty Committee	Assessment to monitor and maintain faculty enthusiasm and support of the program to continually improve the student course and lab research -experience
Program Performance	Alumni career recording	Annually, Au term	Administrative Assistant	Program Faculty Committee, Posted on Program website	Assessment to evaluate program graduate employment success to help meet the overall goal of the program.

Proposal to add a non-thesis option to the MS Program in Immunology and Microbial Pathogenesis

Appendix A - Letters of Support



Daniel M. Clinchot, MD
College of Medicine
Vice Dean for Education
Associate Vice President for Health Sciences Education
260 Meeting Hall
370 West 9th Ave
Columbus, OH 43210-1238
614-688-3104 Office
614-292-4499 Fax
Dan.Clinchot@osu.edu

July 11, 2023

W. Randy Smith, Ph.D.
Vice Provost, Academic Programs
Office of Academic Affairs
203 Bricker Hall
190 North Oval Mall

Dear Randy:

The College of Medicine has reviewed and fully endorses the proposed revision to the MS Program in Immunology and Microbial Pathogenesis. The proposal is to offer an optional non-thesis track for students with prior research training. This will allow the student to focus instead on core areas of immunology and microbial pathogenesis in much greater depth.

Sincerely,

A handwritten signature in blue ink, appearing to read 'D. Clinchot', written over a light blue horizontal line.

Daniel M. Clinchot, MD
Vice Dean for Education
Associate Vice President for Health Sciences Education
Chair, Department of Biomedical Education and Anatomy
College of Medicine

DMC:sl

Proposal to add a non-thesis option to the MS Program in Immunology and Microbial Pathogenesis



College of Arts and Sciences

Department of Microbiology

540 Biological Sciences Bldg.
484 W. 12th Avenue
Columbus, OH 43210

614-247-2718

rappleye.1@osu.edu

2023 July 13

Dear Curriculum Committee,

This letter serves as the Microbiology graduate program's support and concurrence for addition of the non-thesis MS track to the graduate program in Immunology and Microbial Pathogenesis. From our own experience with non-thesis MS degrees, the option for a non-thesis degree will benefit those students who desire an advanced degree, but who will be pursuing non-research based career options (e.g., teaching, patent law, public policy, etc.). We are glad to support this, including making available graduate courses in Microbiology as options for the elective courses of non-thesis MS students.

Sincerely,

Chad Rappleye
Chair, Graduate Studies Committee
Department of Microbiology

Proposal to add a non-thesis option to the MS Program in Immunology and Microbial Pathogenesis

Appendix B – Recommended Electives

Department of Microbiology, OSU College of Arts and Sciences

MICRBIOL 5147 (3 credits): Eukaryotic Pathogens
MICRBIOL 5161 (3 credits): Bioinformatics and Molecular Microbiology
MICRBIOL 5270 (3 credits): Antibiotics and Natural Products
MICRBIOL 6010 (2 credits): Principles of Microbiology
MICRBIOL 6020 (3 credits): Microbial Physiology and Biochemistry
MICRBIOL 6080 (3 credits): Advanced Microbial Genetics
MICRBIOL 6155 (3 credits): Microbial Ecology and Evolution
MICRBIOL 7536 (2 credits): Advanced Food Microbiology

Division of Biostatistics, OSU College of Public Health

PUBHBIO 6210 (3 credits) - Applied Biostatistics I

Department of Microbial Infection and Immunity, OSU College of Medicine

MEDMCIM 6600 (3 credits) – Pathobiology of Cystic Fibrosis
MEDMCIM 7400 (1 credit) - Current Topics in Virus-Host Interactions
MEDMCIM 7402 (2 credits) – Microbial Pathogenesis Journal Club
MEDMCIM 7998: (up to 6 credits/term) Graduate Research in Microbial Infection and Immunity

Department of Biological Chemistry and Pharmacology, OSU College of Medicine

BIOPHRM 5510 (1-2 credits) - Responsible Conduct in Biomedical Research
BIOPHRM 5600 (3 credits) - Introduction to General Pharmacology

Department of Biomedical Informatics, OSU College of Medicine

BMI 5710 (3 credits): Introduction to Biomedical Informatics
BMI 5750 (3 credits): Methods in Biomedical Informatics
BMI 5760 (3 credits): Public Health Informatics
BMI 5770 (3 credits): Health Analytics: Data to Discovery to Dissemination



**THE OHIO STATE
UNIVERSITY**

Curriculum Proposal Checklist

Title of Program:

Effective term:

College:

New/Establish:

Secondary Major Eligible:

Academic Unit:

Revise:

50% Revision:

Mark Up:

Program Contact:

Terminate:

Suspend:

Certificate Category*:

Degree/Credential:

Program of Study :

Title:

Code:

Program Focus*:

Credit hours to degree/credential:

Is this a change to the current total?

Yes No

Program offered only online?

Yes No

If yes, is there a signed MOU with ODEE?

Yes No

Campus(es) where offered:

Columbus

ATI

Lima

Mansfield

Marion

Newark

Rationale:

Student Curriculum Sheet Required:

Four Year (or appropriate) Plan:

Academic Unit Curriculum Committee approval date:

College Curriculum Committee approval date:

Graduate School Council approval date*:

Regional Campus approval date*:

Council on Academic Affairs approval date:

University Senate approval date*:

Board of Trustees approval date*:

ODHE approval date*:

* If applicable