UC RIVERSIDE Academic Senate

June 12, 2025

To: Kenneth Barish, Chair
Riverside Division Academic Senate

From: Special Review Committee for the Proposed Transfer of CNAS Microbiology Undergraduate Program to the CNAS Department Microbiology & Plant Pathology

Chair, Richard J. Debus, Professor of Biochemistry, CNAS
Reza Abbaschian, Distinguished Professor, Winston Chung Endowed Professor in Sustainability, Department of Mechanical Engineering, BCOE
Amy Litt, Associate Professor and Plant Evolution & Developmental Biologist, Department of Botany and Plant Sciences, CNAS
David D. Lo, Distinguished Professor of Biomedical Sciences, SOM
Chikako Takeshita, Associate Professor of Society, Environment, and Health Equity, CHASS

Re: Special Review Committee for the Proposed Transfer of CNAS Microbiology Undergraduate Program to the CNAS Department Microbiology & Plant Pathology

Introduction

Per Appendix 7 (5a) of the Academic Senate Bylaws, Special Review Committee (SRC) was entrusted with the following charge:

1. Evaluate the rationale and justification for the proposed program move
2. Comment on whether the CNAS Microbiology and Plant Pathology department's infrastructure is adequate to accommodate the move
3. Consider the effect of the proposal (if approved) on other units within CNAS and on campus
4. Discuss budgetary implications

Each of these items is discussed below.

1. Evaluate the rationale and justification for the proposed program move.

The committee finds the rationale and justification for the move to be acceptable.

The Microbiology Undergraduate Interdepartmental Program has enrolled approximately 56 new students each Fall since 2021 (as of May 13, 2025, the Program's SIRs for Fall 2025 were 62 first year students and 8 Transfer students). Since its inception in 2011, the Program has been run by MPP faculty. Its required upper division courses have been taught exclusively by MPP faculty, the majority of its upper division elective courses have been created and taught by MPP faculty, the Program's director and Lead Faculty Advisor positions have been filled exclusively

by MPP faculty, and the program has been administered by MPP and the BMPN Administrative Unit. In addition, the MPP department has hired all necessary lecturers and Associate In's, has appointed and supervised the TAs for MCBL courses, and secured, organized, and equipped renovated laboratory space in Pierce Hall for expanded teaching of MCBL courses. Efforts to improve the program historically have involved only MPP faculty. Nevertheless, being an Interdepartmental Program, the Microbiology Program has a three-member Steering Committee that includes one faculty member who is not a member of MPP. The Steering Committee typically meets once every other year, when a vote is needed on program changes. Moving the program into the MPP Department would simplify the administration of the major and would benefit students by facilitating more frequent discussion of curricular issues and learning objectives at faculty meetings. Moving the Microbiology Major into the MPP department would also forestall future problems that have been observed in other Interdepartmental programs: the MPP department chair would be able to assign teaching, MPP faculty would feel more engaged with the major because developing/teaching courses would count as department-level service, and MPP faculty would be more inclined to mentor MCBL undergraduate students.

The program move is supported almost unanimously by the MPP faculty and by the faculty in the Microbiology Undergraduate Interdepartmental Program. Large majorities of faculty participated in the email voting that took place in the Interdepartmental Program and separately in the MPP Department. No faculty member voted against the move and only a few faculty members were unavailable to vote. The current Director of the Program and the current Chair of MPP also support the proposed mover.

2. Comment on whether the CNAS Microbiology and Plant Pathology department's infrastructure is adequate to accommodate the move.

Since its inception in 2011, the Microbiology Undergraduate Interdepartmental Program has been administered by the MPP Department and the BMPN Administrative unit. This would remain the same. Consequently, the MPP Department's infrastructure is adequate to accommodate the proposed move.

3. Consider the effect of the proposal (if approved) on other units within CNAS and on campus.

Since its inception in 2011, the required upper division courses of Microbiology Undergraduate Interdepartmental Program have been taught exclusively by MPP faculty, the majority of its upper division elective courses have been created and taught by MPP faculty, the Program's director and Lead Faculty Advisor positions have been filled exclusively by MPP faculty, and the program has been administered by MPP and the BMPN Administrative Unit. In addition, the MPP department has hired all necessary lecturers and Associate In's and has appointed and supervised the TAs for MCBL courses. There would be no change in these activities. Therefore, there would be no effect on other units within CNAS or on campus.

4. Discuss budgetary implications.

Since its inception in 2011, the Microbiology Undergraduate Interdepartmental Program has been administered by MPP and the BMPN Administrative Unit. This would not change. Consequently, there would be no budgetary implications.

Received 4/10/24 Academic Senate

UC RIVERSIDE

College of Natural and Agricultural Sciences
Office of the Dean
900 University Avenue
2315 Olmsted
Riverside, CA 92521-0127

Proposal to transfer the CNAS Microbiology Undergraduate Program to the CNAS Department Microbiology and Plant Pathology

March 3, 2025

Proposal for a charge for the Special Review Committee

Per Appendix 7 (5a) of the Academic Senate Bylaws dealing with procedures for transfer, consolidation, disestablishment, or discontinuance of an academic program, or unit, we propose the following charge for the Special Review Committee:

1. Evaluate the rationale and justification for the proposed program move
2. Comment on whether the CNAS Microbiology and Plant Pathology department's infrastructure is adequate to accommodate the move
3. Consider the effect of the proposal (if approved) on other units within CNAS and on campus
4. Discuss budgetary implications
5. Provide a report to the Senate Executive Council dated 7 weeks from the issuance of the charge

DocuSigned by:
Elizabeth Watkins 3/11/2025 | 7:41 AM PDT
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Elizabeth Watkins
Provost and Executive Vice Chancellor

Signed by:
Peter Atkinson 3/11/2025 | 6:25 AM PDT
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Peter W. Atkinson
Dean, CNAS

UNIVERSITY OF CALIFORNIA, RIVERSIDE

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Date: November 2, 2024

To: UCR Academic Senate Committees

From: James Borneman, Director, Microbiology Undergraduate Major

RE: Moving Microbiology Undergraduate Major to Dept. Microbiology & Plant Pathology

The faculty of the Microbiology Undergraduate Major considered a proposal to move the program from an interdepartmental major to a departmental major housed in the Department of Microbiology and Plant Pathology. The faculty thought students would be better served by a departmentally-housed major because the monthly faculty meetings would facilitate more frequent discussions of many important topics including the annual student learning assessments, coordinating curriculum among the courses, and possible new courses that would benefit the students.

A vote of the faculty of the Microbiology Undergraduate Major to move the major to a departmental major housed in the Department of Microbiology and Plant Pathology was taken by email. A large majority of faculty voted, and all who voted were in favor, with 20 In Favor, 0 Against and 3 Not Voting.

Based on this positive vote, we request that the appropriate Academic Senate Committees consider our proposal to move the Microbiology Undergraduate Major to a departmental major housed in the Department of Microbiology and Plant Pathology. We note that the department would welcome involvement of non-departmental faculty in the major.

Sincerely,

James Borneman, Ph.D. Professor
Department of Microbiology and Plant Pathology
Director, Microbiology Major
University of California, Riverside, CA 92521
Phone: 951-827-3584, Fax: 951-827-4294, Email: borneman@ucr.edu

R'Mail powered by Google

Aneesah Kelley-Henry <aneesahk@ucr.edu>

Special Review Committee for the Proposed Transfer of Microbiology to Microbiology & Plant Pathology

1 message

Richard Debus <debusrj@ucr.edu> Thu, May 8, 2025 at 10:15 PM
To: katherine.borkovich@ucr.edu, james.borneman@ucr.edu
Cc: aneesah.kelleyhenry@ucr.edu

You don't often get email from debusrj@ucr.edu. Learn why this is important

Dear James and Kathy,

I have been elected Chair of the Special Review Committee that was appointed by the Academic Senate to evaluate the proposal to transfer the CNAS Microbiology Undergraduate Program to the CNAS Department Microbiology and Plant Pathology.

The committee's charge is to:

1. Evaluate the rationale and justification for the proposed program move

2. Comment on whether the CNAS Microbiology and Plant Pathology department's infrastructure is adequate to accommodate the move

3. Consider the effect of the proposal (if approved) on other units within CNAS and on campus

4. Discuss budgetary implications

5. Provide a report to the Senate Executive Council dated 7 weeks from the issuance of the charge

However, committee has been provided with nothing other than the brief letter from Kathy dated October 30, 2024 and the brief letter from James dated November 2, 2024. The committee feels strongly that we need more information to conduct our work. Is there a formal proposal that you can send to me that addresses some of these issues? Has the Microbiology major undergone an Undergraduate Program Review? If so, material in this review, especially the program's Self-Statement, would be very helpful to our current committee.

Many thanks!

Best Wishes,

Rick Debus, Chair
Special Review Committee

To: Special Review Committee to evaluate the proposal to transfer the CNAS Microbiology Undergraduate Program to the CNAS Department Microbiology and Plant Pathology

From: James Borneman (Director Microbiology Major) & Kathy Borkovich (Chair MPP)

Date: 2025.5.29

Re: Response to a Request for More Information

Dear Chair Debus and Special Review Committee Members

Below is the request for more information that we received concerning the proposed transfer of the Microbiology Undergraduate Program to the Department of Microbiology and Plant Pathology. Below, we provide our responses to these requests in blue text.

The committee's charge is to:

1. Evaluate the rationale and justification for the proposed program move

    Please see the attached proposal titled, Proposal to Transfer of MCBL Undergraduate Program to MPP -- 2025.5.29

2. Comment on whether the CNAS Microbiology and Plant Pathology department's infrastructure is adequate to accommodate the move

    Since its inception in 2011, the Microbiology Undergraduate Program has been administered by MPP and the BMPN Administrative Unit. There would therefore be no move.

3. Consider the effect of the proposal (if approved) on other units within CNAS and on campus

    Since its inception in 2011, all of the core courses for the Microbiology Undergraduate Program and the majority of the upper-division elective courses have been taught by MPP faculty. The Director and Lead Faculty Advisor positions have always been filled by MPP faculty. All efforts to improve the program have involved only MPP faculty. There would therefore be no effects on other units within CNAS or the campus.

4. Discuss budgetary implications

    Since its inception in 2011, the Microbiology Undergraduate Program has been administered by MPP and the BMPN Administrative Unit. There would therefore be no budgetary implications.

5. Provide a report to the Senate Executive Council dated 7 weeks from the issuance of the charge

    This document and the attachments are the report.

However, committee has been provided with nothing other than the brief letter from Kathy dated October 30, 2024 and the brief letter from James dated November 2, 2024. The committee feels strongly that we need more information to conduct our work.

Is there a formal proposal that you can send to me that addresses some of these issues?

> Please see the attached proposal titled, Proposal to Transfer of MCBL Undergraduate Program to MPP -- 2025.5.29

Has the Microbiology major undergone an Undergraduate Program Review?

> It was reviewed in 2017.

If so, material in this review, especially the program's Self-Statement, would be very helpful to our current committee.

> Please find attached the Self-Study from that program review - see fil titled, Self Study - MCBL - Admin & Program

Proposal to Transfer the Interdepartmental Microbiology Undergraduate Program to the Microbiology and Plant Pathology Department

1. Rationale for Transfer

The Interdepartmental Microbiology Undergraduate Program was established in 2011. Since then:

1. Its core courses have been taught only by faculty in the Department of Microbiology & Plant Pathology (MPP).
2. The majority of its upper-division MCBL electives have been created and taught by MPP faculty.
3. The Director and Lead Faculty Advisor positions have been filled by MPP faculty.
4. All efforts to improve the program have involved only MPP faculty.
5. The program has been financially administered by MPP and the BMPN Administrative Unit.
6. The program has been financed by MPP and student course fees.
7. When necessary, MPP has hired all lecturers and Associate-Ins to fill gaps in teaching.
8. MPP has appointed and supervised TAs for MCBL courses.
9. MPP secured the renovated lab in Pierce Hall for expanded teaching of MCBL courses.
10. MPP faculty organized, ordered equipment and set up the new teaching lab in Pierce Hall.
11. MPP hired a laboratory assistant for MCBL laboratory courses in Pierce Hall.

The transfer of the Interdepartmental Microbiology Undergraduate Program to MPP would therefore involve no changes except the one described in Sections 3 and 4 below. The rationale for making this transfer is to align the ownership of the program with the department that bears the educational, financial and organizational responsibility for the program.

2. Votes for Transfer

A vote of the faculty in the Interdepartmental Microbiology Undergraduate Program to move the program to a departmental major housed in MPP was taken by email. A large majority of faculty voted, and all who voted were in favor, with 20 In Favor, 0 Against and 3 Not Voting. See letter from James Borneman (Director of Microbiology Program) dated November 2, 2024.

A vote of MPP faculty to move the Interdepartmental Microbiology Undergraduate Program to a departmental major housed in MPP was taken by email. A large majority of faculty voted, and all who voted were in favor, with 21 In Favor, 0 Against and 3 Not Voting. See letter from Kathy Borkovich (Chair of MPP) dated October 30, 2024.

3. Current Administration of the Interdepartmental Program

As described in Section 1, the Interdepartmental Microbiology Undergraduate Program has always been run by MPP faculty and the BMPN Administrative Unit. We note that the Interdepartmental Microbiology Undergraduate Program has also always had a three-member steering committee, which has included one faculty member who is not a member of MPP. However, that committee only convenes when a vote is needed on program changes, which has typically been approximately every other year.

4. Proposed Administration of the Program by MPP

We propose to keep the administration and leadership the same as it currently is, except the steering committee will no longer include a non-MPP faculty member.

5. List of MPP Faculty

1. James Adaskaveg, Professor
2. Emma Aronson, Professor
3. Katherine Borkovich, Professor
4. James Borneman, Professor
5. Sonali Chaturvedi, Assistant Professor
6. Patrick Degnan, Assistant Professor
7. Shou-Wei Ding, Distinguished Professor
8. Ahmed El-Moghazy, Assistant CE Specialist
9. Emma Gachomo, Assistant Professor
10. Sydney Glassman, Associate Professor
11. Rong Hai, Associate Professor
12. Ansel Hsiao, Associate Professor
13. Hailing Jin, Professor
14. Howard Judelson, Professor
15. Fatemeh Khodadadi, Assistant CE Specialist
16. Patricia Manosalva, Associate Professor
17. Juliet Morrison, Assistant Professor
18. James Ng, Associate Professor
19. Olakunle Olawole, Assistant Professor
20. Alexander Putman, Assistant CE Specialist
21. Caroline Roper, Professor
22. Jason Rothman, Assistant Professor of Teaching
23. Jason Stajich, Professor
24. Georgios Vidalakis, Professor & CE Specialist

6. List of BMPN Staff

1. Bernasconi, Carla	Purchasing Assistant & Travel Coordinator
2. Brown, Debbie	Financial Services Analyst, 2
3. Callecod, Kylee	Purchasing Assistant & Travel Coordinator
4. Farias, Phil	Procurement Supervisor
5. Grawe, Lacey	Events Coordinator & Department Chair Assistant
6. Liyanage, Jessica	Student Assistant
7. Morgando, Christine	Financial Administrative Officer
8. Quintana, Lorena	Purchasing Assistant & Travel Coordinator
9. Ryan, Rebecca	Research Administrator, 3
10. Seedfeldt, Erinn	Research Administrator, 3
11. Ulrich, Matthew	Facilities Assistant
12. Under Recruitment	Research Administrator, 2
13. Under Recruitment,	Temporarily supported by Phil Farias (Procurement Supervisor)
14. Vanta, Sarah	Financial Operations Manager
15. Viramontes, Joey	Receiving Room Assistant
16. Westbrook, Jeanette	Procurement Analyst

7. Undergraduate Academic Advising Center Advisor

Mark Taylor

SELF STUDY OF THE MICROBIOLOGY MAJOR

I. Administrative Structure

The Dean of the College of Natural and Agricultural Sciences (CNAS) oversees all of the departments, department-based undergraduate majors and several interdepartmental majors, including the Microbiology Major. Because the resources and administration in the college are channeled through departments, and because the Microbiology Major is multi-departmental, the Chairperson from the Department of Plant Pathology and Microbiology represents the major at the appropriate college meetings. This ensures that (i) the major has parity with department-based life sciences majors at the college level, (ii) the major has the authority to carry out its mission, (iii) information is transferred between CNAS and the major, and (iv) there is coordination of teaching assignments for the major among the departments.

The Microbiology Major is governed by a Steering Committee and the Participating Faculty Members. The major endeavors to support a culture of open, two-way communication between the Steering Committee and the Participating Faculty Members.

Steering Committee: The Steering Committee is comprised of three faculty members, representing a minimum of two academic departments. One committee member serves as the Lead Faculty Advisor, who is responsible for mentoring duties such as career guidance. The Chairperson from the Department of Plant Pathology and Microbiology also serves in an *ex officio* capacity to ensure proper representation in the college (see above); this person has all of the rights that the other committee members have. The committee's responsibilities include periodic evaluation of the curriculum, handling of appeals and exceptions and recruitment of faculty advisors. The Steering Committee seeks input from the Participating Faculty Members when appropriate. The Steering Committee may set up other sub-committees as needed. The Steering Committee may solicit faculty members to join the major, and it may also remove non-active members from this list.

Participating Faculty Members: These participants were initially identified through a college-wide poll that enabled faculty members to join the major. To continue as a Participating Faculty Member, at least one of the following is required: serving as an instructor in one of the upper-division science courses satisfying a requirement of the major, serving as a faculty advisor to undergraduates in the Microbiology Major, serving as a member on any Microbiology Major committee, or hosting an undergraduate performing microbiological research in their lab. Faculty members can also self-nominate to become a Participating Faculty Member. Participating Faculty Members can communicate suggestions or concerns to the Steering Committee at anytime. Such input is considered and acted on (if appropriate) by the Steering Committee in a timely manner. Current members of the steering committee are:

Role	Name	Department	Email
Chair and Lead Faculty Advisor	James Borneman	Plant Pathology & Microbiology	borneman@ucr.edu
Member 1	Emma Wilson	Biomedical Sciences	emma.wilson@ucr.edu
Member 2	Katherine Borkovich	Plant Pathology & Microbiology	katherine.borkovich@ucr.edu

CNAS Undergraduate Academic Advising Center: The major utilizes the Professional Academic Advisors at this college-based advising center.

II. Goals and Description of the Microbiology Major

Educational Philosophy and Vision: The mission of the Microbiology Major is to train students in Microbiology using a curriculum designed to allow students to prepare for a broad range of research, educational, policy and professional careers encompassed by the discipline, and to allow students to be competitive for careers after graduating from UCR. Students are educated in a myriad of subdisciplines in microbiology including human and animal pathogenesis, molecular genetics, physiology, environmental sciences, plant pathology, biotechnology, and epidemiology, among others. Students are expected to both demonstrate and retain an understanding of fundamental microbiological principles. Students are also expected to develop the ability to apply (i) critical thinking skills, (ii) technical laboratory skills and, (iii) analytical and computational skills, as well as develop the ability to clearly communicate scientific ideas in both written and oral formats.

Perceived Strengths and Weakness of the Major: We believe that the greatest strength of the Microbiology Major is its Capstone Course: *Experimental Microbiology* (MCBL 125). This course guides students through the process of performing experimental research in a microbiology laboratory. Students acquire skills in formulating hypotheses, designing experiments, performing laboratory experiments, analyzing data as well as preparing and presenting the results of these efforts in written and oral formats. Our most successful students in this course have become authors on peer-reviewed scientific publications. In addition, our graduates have obtained higher salaries in their first jobs because of the skills and experience that they have acquired from this course (personal communications with our students). Furthermore, students in this course independently discovered a new functional capability of Neurospora, which became the foundation of a recent NSF grant proposal, which, if funded will further support undergraduate research (see Biosketch for Kathy Borkovich in Appendix I).

We believe that the primary weakness of the Microbiology Major is the relatively small number of upper-division courses that are offered. This is due to the relatively small number of Participating Faculty Members in our major and because these faculty are members of several departments, and therefore have other department-based teaching responsibilities.

Recruitment and Outreach: We participate in all of our college-based recruitment activities including Discovery Day, Highlander Day and others. We also communicate with admitted students via phone calls and emails to encourage them to attend UCR. Students in our major are also invited to a welcome reception at the beginning of fall quarter. We are also engaged in outreach to the general public and local schools via presentations, demonstrations, hands-on activities and judging science fair projects (see the Faculty Biosketches in Appendix I for more details).

Key Changes to the Major Since its Last Review: This is the first review of the Microbiology Major.

Issues the Major Wants to Raise that Would be Helpful to the Review Committee: We believe that the Microbiology Major would be improved by (i) hiring additional Microbiology faculty so that we can teach a wider array of upper-division courses and by (i) having access to additional instructional laboratory space so that we can accommodate the increasing demand for our Capstone Course (MCBL 125).

Section II Addenda Including Faculty/Student Ratios, Structure of Degrees, Class Sizes, and Other Items: See Appendix II.

III. Learning Outcomes and Assessment Results

Western Association of Schools and Colleges (WASC) Learning Outcome Competencies and the Learning Outcomes for the Microbiology Major: The WASC learning outcomes are written and oral communication, quantitative reasoning, critical thinking, and information literacy. The learning outcomes for the Microbiology Major address all of the WASC learning outcomes, primarily through its Capstone Course (MCBL 125). The Microbiology Major's six learning outcomes are:

Learning Outcome 1: Students demonstrate the ability to apply critical thinking skills.

Learning Outcome 2: Students demonstrate the ability to communicate scientific ideas clearly in written format.

Learning Outcome 3: Students demonstrate the ability to communicate scientific ideas clearly in oral format.

Learning Outcome 4: Students demonstrate the ability to apply technical laboratory skills.

Learning Outcome 5: Students demonstrate the ability to apply analytical and computational skills.

Learning Outcome 6: Students both demonstrate and retain an understanding of fundamental microbiological principles.

To see how the learning outcomes of the Microbiology Major address the WASC learning outcomes, please see Appendix III, which is our Learning Outcomes Assessment Report from the 2015-2016 Academic Year.

IV. Student Data

Summaries of the Last Five Academic Years: See Appendix IV.

Financial Support Including Extramural Grants, Academic And Research Fellowships, And Financial Aid: See Appendix V.

Advising, Mentoring and Career Development: Student advising is performed by Professional Academic Advisors at the CNAS Undergraduate Academic Advising Center. This advising includes assisting students in coordinating their coursework and finding resources such as tutoring and career counseling. Student mentoring is performed by faculty including the Lead Faculty Advisor, who provides services such as career guidance. Additional preparation for specific career paths is provided by organizations such as the UCR Career Center, the Health Professions Advising Center and the Science and Math Initiative Program (K12 teaching careers). Additional mentoring is providing by faculty who host students in their labs to perform research (see Faculty Biosketches in Appendix I for more details). Finally, all of our students are encouraged to take NASC 093, *Freshman Advising Seminar in the Natural and Agricultural Sciences*, their first quarter at UCR. This course provides students with information on curriculum planning, career options and goals in the sciences, opportunities for undergraduate research, development of learning and study skills, ethics in research and education, and an introduction to the faculty and professional academic advisors.

Undergraduate Research or Other Scholarly Activity with Information on Presentations and Publications: This information is provided in the Faculty Biosketches (see Appendix I).

V. Instructional Facilities

Classrooms: Our campus utilizes a centralized system for assigning classroom space for courses.

Instructional Laboratories: The Microbiology Major utilizes two instructional laboratories to teach our two laboratory courses: MCBL 121L and MCBL 125. MCBL 121L is taught in Spieth 1125 (max of 24 students/section), which is well equipped for microbiology experimentation. Materials for this course are prepared and setup by the Lab Prep Staff from the Biology Department. MCBL 125 is taught in University Laboratory Building 104, in two rooms with state-of-the art wet-lab and computer facilities (max of 28 students/section). Both instructional laboratories contain the items described in the Instructional Technology section, below.

Information Resources such as Library and Computer Resources: Our students have access to several libraries including the Orbach Science Library among others. More importantly, the students have access to the complete University of California online library resources, and can access these resources off campus via a secure Internet connection. Our Student Computer Services maintains seven public computer labs with approximately 170 computers (Mac and Windows) available for academic use by all UCR students, and which are open approximately 160 hours per week.

Instructional Technology in the Classroom and Teaching Laboratory: Our classrooms and laboratories are equipped with modern instructional technology listed below.

Course Management System (iLearn): Allows the electronic (web) dissemination of information relating to a particular course: this can include schedules, calendars, syllabus, etc. It also allows e-mail access to all students in a course and provides a forum for on-line interactions (discussion boards, etc.). The system also provides assessment tools and grading functionality, including SafeAssign, which is a software system enabling plagiarism assessment.

Course Materials System (iLearn): Provides a mechanism to distribute electronic (web) materials to students. This includes PowerPoint, digital video, digital images, digital audio, etc. Importantly, the Course Materials System includes the infrastructure to store, catalog, and distributed these digital materials.

Wireless Network: Equips students with a widely available method of digitally accessing the Course Materials and Course Management system.

Classroom Technology: Provides faculty and instructors access to appropriately configured classrooms containing (at a minimum) access to the campus network, effective digital projection system, and multimedia playback system. Some of our classrooms are able to use clickers (known also as Personal Response Systems or PRS), which allow real-time interactions between the instructor and their students.

Laboratory Technology: See Instructional Laboratories section above.

Statement of Future Needs/Requirements: The number of Freshmen in the Microbiology major nearly doubled in Fall 2016. As enrollment continues to increase, we will need to teach more sections of our Capstone Course (MCBL 125). To accomplish this, we will need additional laboratory space with capabilities similar to the one we currently use (University Laboratory Building 104). We also will require the continued support of the Lab Prep Staff from the Biology Department for MCBL 121L and new support for MCBL 125, due to the increase in number of majors.

VI. Institutional Support

Staff Personnel Allocations for the Last Three Years: The Microbiology Major teaches two laboratory courses (MCBL 121L and MCBL 125) that require personnel. Materials for the MCBL 121L course are prepared and setup by the Lab Prep Staff from the Biology Department, where at least one person from this staff is dedicated to the preparation of the materials required for this course. Materials for the MCBL 125 course are currently prepared by the instructor and a graduate teaching assistant. Student advising is performed by one Professional Academic Advisor from the CNAS Undergraduate Academic Advising Center, who is shared by several majors.

TA Allocations for the Past Three Years: The Microbiology Major is provided TAs for five of its courses. For MCBL 121, we are provided 2 full-time (FT) TAs fall quarter, 1.5 FT TAs winter quarter and 1 FT TA spring quarter. For MCBL 121L, we are provided 5 FT TAs winter quarter and 4 FT TAs spring quarter. For MCBL 123, we are provided 1 FT TA spring quarter. For MCBL 124, we are provided 0.5 FT TA winter quarter. For MCBL 125, we are provided 1 FT TA spring quarter. Resources for these positions were: 2013-14, $161,934; 2014-15, $180,810; 2015-2016, $187,967.

Institutional Services: UCR provides numerous services for our students, including advising from Professional Academic Advisors at the CNAS Undergraduate Academic Advising Center. Preparation for specific career paths is provided by organizations such as the UCR Career Center, the Health Professions Advising Center and the Science and Math Initiative Program. UCR's Academic Resource Center provides programs and resources to promote the development of essential academic study skills, foster academic excellence and cultivate an environment of learning beyond the classroom. UCR's Student Success Programs gives students opportunities to implement their knowledge beyond the classroom. Programs like the Student Mini-grants, Chancellor's Research Fellows, Internships, and Summer Study Abroad help students apply their classroom knowledge to real world issues; in these programs, students also use critical thinking and analytical skills as they work to solve problems and contribute new knowledge to their discipline. The Undergraduate Research Journal and Undergraduate Research Symposium foster and promote faculty-mentored research on campus. UCR's University Honors is designed for students who have demonstrated through their own high achievement that they value intellectual challenges and want to be a part of an innovative, diverse, and demanding learning community. UCR's University Writing Program has programs and resources to develop core competencies in reading, writing, and speaking that are devoted to critical analysis, complex reasoning, and responding to the writing and speaking of others.

VII. Faculty Data

Faculty Academic Biosketches: See Appendix I.

Faculty Grants that Impact the Microbiology Major Including Undergraduate Research: Kathy Borkovich is Co-PI on a funded NSF STEP grant with PI Michael McKibben (SL-CARE: Student learning communities and research engagement). This project is expanding the Learning Communities in our science college to include up to 80% of incoming undergraduates, purchasing equipment for teaching Dynamic Genome courses and providing some funding for TAs and an academic coordinator. Dr. Borkovich is also a Key Faculty on a recently-awarded HHMI Undergraduate Science Education grant to PI Susan Wessler for $2.4 million over 5 years (SALSA; Sustaining Academic Leadership for STEM Achievement). HHMI-SALSA will increase the number of sections of the Dynamic Genome course from 9 to 24/year over the next five years, allowing nearly 600 students to take the course. For more information, see Faculty Biosketches in Appendix I.

Three-Year Teaching Load Data: See Appendix VI.

Distribution of Faculty Among Sub-Disciplines or Area(s) of Specialty for Past 5 Years, Impact of this Distribution on the Microbiology Major and Recruitment Plans for the Future: The Microbiology Major currently has 28 Participating Faculty Members that work in the following broad areas of Microbiology: host-microbe interactions (22), fundamental research (28), applied research (15), agriculture (19), medicine (10) and the environment (5); the number of faculty members in each area are in parentheses and each faculty can be in more than one category. The types of organisms that are studied by our faculty members include: bacteria (11), fungi-oomycetes (9), protozoa (3), and viruses (5); the number of faculty members studying each organism type are in parentheses and each faculty can be in more than one category. For additional details, see the faculty Biosketches in Appendix I. Our future recruitment plans are to increase the total number of faculty members in the Microbiology Major to 50-60, enabling us to offer more upper-division electives for our students. These hires will be in areas that create a better balance among agricultural, medical and environmental researchers.

UC RIVERSIDE | Microbiology & Plant Pathology

Microbiology & Plant Pathology
University of California, Riverside
900 University Avenue
Riverside, CA 92521-0001
katherine.borkovich@ucr.edu

Date: October 30, 2024

To: UCR Academic Senate Committees

From: Katherine Borkovich, Chair, Department of Microbiology and Plant Pathology Katherine Borkovich

RE: Movement of Undergraduate Microbiology Major to the Department of Microbiology and Plant Pathology

The faculty of the Department of Microbiology and Plant Pathology (MPP) considered a proposal brought forth by the faculty in the interdepartmental Microbiology major to move the major to MPP, largely to streamline administrative functions. This matter was discussed at an MPP faculty meeting on 09/30/2024. The general consensus was that this action was supported because MPP faculty are currently in charge of nearly all instruction and development of upper division courses, advising, administration and leadership of the major. Having the major in the MPP department will simplify administrative decisions for the major.

Based on the positive discussion during the meeting, a vote of the MPP faculty to move the major to MPP, and convert it to a departmentally based major, was taken by email. A large majority of faculty voted, and all who voted were in favor, with 21 In Favor, 0 Against and 3 Not Voting.

Based on this positive vote, we request that the move of the undergraduate Microbiology to MPP be considered by the appropriate Academic Senate Committees. Note that the department would welcome involvement of non-departmental faculty in the major if they are interested.

UC RIVERSIDE | UNIVERSITY OF CALIFORNIA
College of Natural and Agricultural Sciences
Executive Committee

April 8th, 2025

TO: Kenneth N. Barish, Ph.D., Chair, Academic Senate, UCR Division

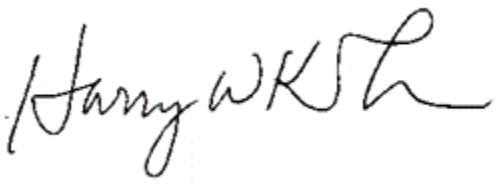
FROM: Harry Tom, Ph.D., Chair, Faculty Executive Committee, College of Natural and Agricultural Sciences

SUBJECT: Proposed Transfer of the Undergraduate Microbiology Program

Prof. Barish,

The CNAS Executive Committee has reviewed the proposal to transfer the undergraduate Microbiology program to the Department of Microbiology and Plant Pathology, has no objections, and supports the move.

Sincerely,



Harry Tom, Ph.D
Chair, Faculty Executive Committee, College of Natural and Agricultural Sciences

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Cherysa Cortez <cherysac@ucr.edu>

[HIGH PRIORITY] SRC Transfer of Microbiology Undergraduate Program to Dept of MPP Final Report

Richard Debus <debusrj@ucr.edu> Tue, Aug 12, 2025 at 11:51 AM
To: Cherysa Cortez <cherysa.cortez@ucr.edu>
Cc: Aneesah Kelley-Henry <aneesah.kelleyhenry@ucr.edu>, Cherysa Cortez <cherysac@ucr.edu>

Hi Cherysa,

The members of the Special Review Committee unanimously supported the proposed transfer. On the basis of his brief comment, it appears that the CNAS Dean is also in favor.

I am confident that the committee would not revise its recommendation/report on the basis of this comment from the Dean.

Best Wishes,

Rick Debus

From: Cherysa Cortez <cherysa.cortez@ucr.edu>
Sent: Tuesday, August 12, 2025 11:34 AM
To: Richard Debus <debusrj@ucr.edu>
Cc: Aneesah Kelley-Henry <aneesah.kelleyhenry@ucr.edu>; Cherysa Cortez <cherysac@ucr.edu>
Subject: Re: [HIGH PRIORITY] SRC Transfer of Microbiology Undergraduate Program to Dept of MPP Final Report

Dear Richard,

In review of the report and documents related to the proposed transfer of the Microbiology Undergraduate Program to the Department of Microbiology and Plant Pathology, the letter from the CNAS Dean is inadvertently missing. It was requested and not received in time for the Special Review Committee you chaired to include it in their review and deliberation. Prior to the SRC's first meeting and in response to the request for a letter, the CNAS Dean replied thusly:

Senate Request:

> *Subject: Proposed Transfer of the Undergraduate Microbiology Program*
>
> *March 7, 2025*
>
> *PETER ATKINSON, DEAN, COLLEGE OF NATURAL AND AGRICULTURAL SCIENCES*
>
> *RE: Proposed Transfer of the Undergraduate Microbiology Program*

We are in receipt of the attached proposal to transfer the undergraduate Microbiology program to the Department of Microbiology and Plant Pathology. Per Academic Senate Appendix 7 , this process seeks consultation with the dean.

Please review the attached documents and provide your letter by March 31, 2025.

The letter will be added to the proposal documents as part of the Academic Senate review process.

Many thanks,

Cherysa Cortez

Response from Dean Atkinson, April 11, 2025:

I can send a memo explaining my reasoning. This had been a chronic problem with these programs. I dealt with this as Life Sci Dean, and I see the integration of these programs into departments as inevitable unless we develop a better model for their financial viability.

Peter

Peter W. Atkinson, Ph.D.

Dean

College of Natural & Agricultural Sciences

We've followed up on this dean's letter and to date have not received it. Is the above sufficient for the SRC to review and decide if they would like to revise their final report?

Many thanks,

Cherysa Cortez

On Thu, Jun 12, 2025 at 3:12 PM Aneesah Kelley-Henry <aneesah.kelleyhenry@ucr.edu> wrote:

> Good Afternoon Ken and Cherysa,
>
> Please find attached the final report for the Special Review Committee for the Proposed Transfer of the CNAS Microbiology Undergraduate Program to the CNAS Department Microbiology & Plant Pathology. Please let me know if you need any additional information.

Thank you,

Aneesah

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Aneesah Kelley-Henry

Committee Analyst

Academic Senate Office

University of California, Riverside

231 University Office Building

Riverside, CA 92521

P: (951) 827-4784

F: (951) 827-5545
~~~~~~~~~~~~~~~~~~~~~~

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Cherysa Cortez <cherysac@ucr.edu>

Proposed Transfer of the Undergraduate Microbiology Program

Peter Atkinson <peter.atkinson@ucr.edu> Fri, Apr 11, 2025 at 9:02 AM
To: Cherysa P Cortez <cherysa.cortez@ucr.edu>
Cc: Peter W Atkinson <peter.atkinson@ucr.edu>, Jennifer V Markovski <jennifer.markovski@ucr.edu>

I can send a memo explaining my reasoning. This had been a chronic problem with these programs. I dealt with this as Life Sci Dean, and I see the integration of these programs into departments as inevitable unless we develop a better model for their financial viability.

Peter

Peter W. Atkinson, Ph.D.
Dean
College of Natural & Agricultural Sciences
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e-mail: peter.atkinson@ucr.edu
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Executive Assistant: Jennifer Markovski
(office) 951-827-4597

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