

2017-18 Proposal to Fill a Full-Time Faculty Position

1. Faculty position being proposed

Biology Instructor

2. Proposal Being Made by (List Name(s) and Title(s))

Dr. Margaret Kauffman, James Baxter, Mark Barnby, Shyam Sundar, Mark Grabiner

3. Summary description of the position

This is a 100% teaching position for a faculty teaching Microbiology. Microbiology classes typically are nearly full enrolled and we have 2-3 adjunct faculty teaching per semester. We are looking for a faculty member who will lead the microbiology courses. Ideally they would have expertise in microbiology, health science related teaching, biotechnology and/or anatomy and physiology.

4. Rationale for filling this position: include examples of how this position impacts students, program needs, and college goals

Microbiology is a critical course for several of the pre-health sciences. This course serves both the nursing program and the respiratory therapy program as a key pre-requisite for entry into those programs. According to Gale Carli over the past 4 years 20-50% of her nursing students took microbiology here at Ohlone. In addition it is required for the Respiratory Therapy program. Both of these programs require students to have a strong background in microbiology to be successful in their programs. A full time faculty will ensure the continued success of pre-health science students but also support the health science program.

Overall enrollment in the biology courses at Ohlone has been growing. Since 2010 Biology has shown a 14% increase in FTES. With the expansion of the enrollment in Biology 130, a pre-requisite course for Microbiology, we can only anticipate further growth in enrollment in this class.

This course is a complex, lab based science class required specialized skills in bacteriology and mycology. Microbiology labs are complicated and expensive. This means that the course requires the consistency that a full time faculty can provide. At this time only adjunct faculty are teaching this course due to the recent departure of the full time faculty member. Since her departure we have had a series of different adjuncts teach this class. Although did a good job with the material, we have not retained the same adjuncts each semester. This challenges the consistency of the program and places the lab technician in the position of attempting to coordinate these adjuncts. In addition to the complexity of the labs, there needs to be good integration between the lecture and lab content. Presently in some sections two different part time instructors are involved (one teaching the lecture and the other the lab). This presents a difficulty in fully integrating the lab and the lecture content since the adjuncts teach at different times.

Feedback from many local biotechnology companies consider the lab skills gained in Ohlone's microbiology course to be critical to their hiring. Thus students on a pathway that entails working in some local biology and biotechnology industries benefit from a strong and consistent microbiology course at Ohlone. Biology is the fastest growing science in terms of technological innovations and discoveries, many of which impact the curriculum in microbiology. Recent advances in molecular DNA technology have exposed the existence of plethora of microorganisms hitherto unknown, some of which could have potential impact for good or ill on human health and wellbeing. Due to changes in human ecology, commerce, and travel, new emergent diseases are appearing and spreading—Ebola, Zika, among others—and due to climate change microbial diseases that were once confined to tropical areas are spreading into regions from which they had been eliminated. New CRISPER-Cas9 technology is giving microbiologists the tools to easily alter the genomes of microorganisms for human purposes. Our microbiology curriculum needs to keep up with this rapidly changing field. A full-time faculty member whose area of commitment is in microbiology is absolutely necessary if our program is to remain current. We have had very good adjuncts teaching micro for the past few years, but adjuncts are not paid nor expected to update the microbiology curriculum to keep pace with the dramatic changes taking place in this field. The commitment of a full-time faculty member in this area is vital to the viability and currency of our program.

In the coming year the microbiology program will be moving from the Newark campus to the Fremont campus. It is inconceivable to imagine not having a full time faculty involved in setting up this complex laboratory based class. This is neither the responsibility of the adjuncts nor of the lab technician. Inadequate or mistaken planning and setting up of this new facility will have long term detrimental consequences on the future success of the biology and health science programs. Ohlone needs to be on the frontline of this growing field.

5. Are there any externally imposed requirements such as a specialized program accreditation that would put this program in jeopardy if a full time position is not filled? If so, please explain.

Not directly but accreditation of the nursing and RT programs requires students to have a strong background in microbiology

6. Other information to support the position proposal: **(Include qualitative data if applicable)**

A full time faculty member is critical to this position also on the basis of safety. Adjunct faculty may be excellent instructors but typically communication between several adjuncts teaching the same course is difficult and often non-existent. Given that the students handle pathogenic microbes good communication on how those microbes are handled, labeled and how the lab is maintained and run is critical to preventing unsafe conditions for students. A full time faculty would provide that hub for communication to occur and would provide consistency in safety policies and practices.

The remaining questions to be completed by the Division Dean

7. A statement by the Dean of the division housing this position, which includes data, evidence, and analysis. **Include all relevant information you would like the committee to consider.**

This position is replaces a fulltime faculty member in Microbiology who resigned after the Fall 2014 semester due to personal reasons. Due to the complex structure of the lecture and lab combinations for Biology, it is difficult to fill the courses with adjuncts. Using adjuncts may result in labs that are not necessarily being taught by the faculty who teach the lecture, a situation that is never optimal. In addition, the specialized nature of Biology means that that pool of adjunct faculty qualified to teach Microbiology is limited.

8. Is the position part of a Career Technical Education (CTE) Program? ___Yes ___X___No

QUANTATIVE DATA SUMMARY: (Refer to datasheet provided by the Research and Planning Office)

9. What is the department FTES? (Data is available on the Program Review data sheet – Research and Planning website.)

Fall 2016 181.29 Spring 2017 185.27

10. What is the ratio of full-time to part-time faculty in the department?

52:48

11. What is the ratio of FTES by Adjuncts?

84

12. What is the current WSCH/FTEF in the department?

632

13. Does the position address an area of growth? If yes, include a five year trend line for FTES.

The need for this position is not based on growth of the entire department. Instead it focuses on one specialized area. This area serves as a critical piece in the background of students entering the health sciences. Therefore, the lack of a fulltime faculty member in Biology jeopardizes maintaining the existing enrollment of the students in the health sciences. In addition, the lack of a fulltime faculty member in Microbiology has detrimental effects on students transferring to the Health Sciences.