

Department of Chemistry & Biochemistry COVID Impact Statement

The Department of Chemistry and Biochemistry is a large department with over 65 faculty, 10 of which are teaching professors. The impact of COVID on our specific department was large given research for many faculty occur on the UC San Diego campus in experimental laboratories and because we teach in-person laboratory courses to thousands of students every year. Beyond not being able to access these important physical spaces, specific COVID impacts on teaching, mentoring, research, external visibility and productivity are described below.

Impact on Teaching. The Department of Chemistry & Biochemistry teaches over 25,000 students each year in a wide range of courses including large-enrollment, lecture-based and laboratory-based courses. Individual faculty also train students (graduate and undergraduate) in their computational and experimental research laboratories. COVID has impacted all of these efforts. For faculty who teach laboratory courses, the need to turn an in-person laboratory course into a meaningful on-line laboratory course has been challenging yet we were able to do so due to the extraordinary efforts of our faculty, including many of our teaching professors. For faculty who teach large enrollment courses, the level of time spent on moving to the on-line format, to have meaningful interactions with students and to have exams take place over a 12 hour time period for students abroad should also be recognized as being much more difficult than teaching these courses in pre-COVID semesters. Several faculty took on extra teaching and/or changed their teaching assignments to help the department cover courses that needed last minute coverage due to a variety of reasons all related to COVID. All of these efforts are something that the department would like to highlight and recognize in this department impact statement.

Impact on Graduate Student Mentoring. For faculty in the Department of Chemistry who have computational and experimental research laboratories, continuing the training of graduate and undergraduates since Spring 2020 has been challenging with shutdown of all facilities, reduced occupancy once everything opened and even with the more recently social distancing in place. Faculty had to change the scope of projects as well as completely re-direct students to projects that could be done remotely so that students, in particular graduate students, could stay on track with their degree progress. Being a good mentor to graduate students in faculty research groups during COVID meant being flexible and more interactive than pre-COVID times. However, this increased interaction was largely conducted in a virtual/remote setting, which presented unique logistical and communication challenges.

Impact on Research. The impact of COVID on research was large these past few years with laboratories and important facilities necessary to do the research closed. This will impact quantity and rate of research as well as breadth. Unfortunately, this can impact career trajectories for assistant professors who were able to get their research going at full stride in Spring 2020 had to then shut down their laboratories. Additionally, faculty in the Department of Chemistry & Biochemistry are expected to apply for and garner external grants for their research. Often preliminary data are necessary to get these grants so laboratory shutdowns negatively impact the ability to do experiments to get these data. Other impacts to experimental researchers include supply chain issues as there have been shortages on reagents/chemicals/supplies for laboratories since the pandemic as well as travel restrictions which prevented service engineers from coming to repair equipment in a timely manner.

Impact on External Visibility. During COVID, many scientific meetings were cancelled, reduced in size or moved to remote format. This impacted opportunities for our faculty to give talks and to network with others in their field. Seminars at other academic institutions were also reduced in number and were done remotely which often led to limited interactions with faculty at these other institutions. This significantly impacted early career faculty as networking and meeting people are most important activities given external review and recognition are important components of promotion and tenure.

Impact on Faculty Productivity Due to Child Care. Many of our early and mid-career faculty have young children at home. During COVID, due to school closings for over a year, this took an enormous toll on their time, impacting different individuals in a variety of ways.