

CSU Channel Islands
Program Assessment and Review Committee (PARC)
Report to the Provost and Dean of Faculty
PARC Comments and Recommendations for

Biology

May 25, 2010

With the program's self-study and external review as its major data sources, the Program Assessment and Review Committee (PARC) reviewed the undergraduate major in Biology and offers the following comments and recommendations. Organizationally, this review follows the four elements of review of these earlier assessments, and should be read in conjunction with them.

Members of PARC are: Simon Aloisio, Don Rodriguez, Harley Baker, Mike Riley, Scott Frisch, Liz King, Nelle Moffett, Steve Lefevre (co-chair), Alex McNeill, Amy Denton, Stephen Clark, Peter Smith, Tiina Itkonen, Jesse Elliot, Betsy Quintero, Dennis Downey, Jaye Smith, Marie Francois, Karen Jensen, Greg Wood, Ed Nuhfer (co-chair), and Luda Popenhagen.

Element I: Defining Program Purposes and Ensuring Educational Outcomes

1. Comment. Regarding program mission and organizational structure, biology's self-study describes well the distinctiveness of the program and its support of multicultural and international perspectives and service learning. (Self-study, p 2-3) As noted by the external reviewers, its organizational structure is well developed. (External review, p 2)
2. Comment: Program faculty members are working on a Personnel Program Standards (PPS) for retention, tenure and promotion; and are close to sending a revised version for approval. The importance of this approval is noted by the external reviewers (p 3).
 - Recommendation: *PARC recommends that the biology program PPS be approved in a timely manner.*

Element II: Achieving Educational Outcomes

1. Comments: External reviewers comment that expectations of students are high and that the curriculum is current. (p 3). Lab manuals for courses seem to be uniform and established, and they follow the learning outcomes of the respective courses.

- *Recommendation: The curriculum should be streamlined (external review, p 11) and we note that subsequent to the self study, biology has eliminated its biotechnology emphasis and the certificate in biotechnology. Faculty should also consider reducing the number of required classes in some of the options.*

2. Comment: Learning outcomes created by the biology program for courses and program are assessable, publicly accessible, and appropriate. Some assessment data seems to have been collected.

- *Recommendation: It will be important for the administration to work with all faculty to develop a plan that will allow for further development of the infrastructure, instrument maintenance program, and grant-writing success so that participation of students in research will continue to develop.*

3. Comment: Both the self study and external review note the importance of lecturer faculty in the biology program (External review, p 6).

- *Recommendation: It is important that the administration, as well as program tenure ladder faculty, honor the contributions of lecturers with space, serious consideration of all their contributions when considering renewing contracts and range elevations, and wholehearted consideration of their expertise as nationally and/or internationally competitive teacher/scholars.*

Element III: Developing and Applying Resources to Ensure Sustainability

1. Comment: The biology self study makes as its first recommendation the hiring of additional faculty, supported by data describing the high part time to full time faculty ratio. (p 28) It cites particular needs in physiology and microbiology as its highest hiring priorities.

- *Recommendation: Every effort should be made to increase the number of tenure-track faculty in the program. We agree with the visiting team that consideration of hiring from within the lecturers in the program would be financially sound, and easy to accommodate institutionally.*
- *Recommendation: The faculty search process should be only for positions that are funded. (External review, p 10) The campus and the program should make the hiring process more transparent.*

2. Comment: Reviewers and the self study describe important lab and equipment needs essential to biology as it begins growing again with increased enrollment.

- Recommendation: *We agree (external review, p 8) that development of facilities appropriate to support the role of research experiences for undergraduates, as well as professional scholarly development of faculty is critical to the growth of the program.*

3. Comment: External reviewers note that the program has pioneered strong ties with local industry, particularly in the biotech industry, relationships that are likely to provide groundwork for employment for students, and stimulus for future gifts (p 9). Several biology faculty are actively identifying extramural funding.

- Commendation and Recommendation: *Biology faculty should continue to identify sources for grant funding, and work with Research and Sponsored Projects, faculty development, and other offices to leverage local funds for larger extramural research support.*

Element IV: Creating an Organization Committed to Learning and Improvement

1. Comment: The Biology program self study specifies and justifies the areas in which the Biology program plans to maintain and develop and lists the resources needed for each. Such resources are critical to maintain the high program quality and expand in the areas identified in the program self study.

- Recommendations: *The external report recommends development of a small grants program to provide faculty with seed money and release time. A university mini-grant program has existed almost since the creation of the Channel Islands campus and about 90 % of tenure-track faculty, including those in the Biology program have made use of this support to gain release time to do scholarship and increase grant activity. The mini-grant program allows faculty from all disciplines to write a proposal to compete for a limited pool of funding that grants one course release and some supply money (~\$1000) for the following year. The mini-grant program is not a substitute for seed money. An alternative or complimentary approach would be to grant some sort of start-up package; that includes time, space, and money for supplies and equipment at the time of appointment as seed funding, to encourage continued scholarly activity and promote the seeking of extramural funding. This seems essential to faculty in the experimental sciences, such as Biology, where opportunities for large amounts of external funding, and where time, space, and money go hand-in-hand towards success.*

Concluding Recommendations:

Hiring full-time faculty is a widespread need throughout the University, and it is essential for the growth of biology program. We agree with the visiting team that hiring from within the lecturer faculty is a cost-effective way of increasing the number of tenure-track faculty. This would especially easy to accommodate in the biology program because they are already acting as undergraduate research mentors in the program. Searches should be conducted only for funded positions.

When fiscally possible, new laboratory facilities are needed. Existing space needs to be renovated and enhanced. Laboratory space for undergraduate research and upper division courses is needed. Instrument maintenance and time for grant writing are also priorities to continue to provide students with undergraduate research opportunities. Reflecting of actions taken this year, the program faculty should consider streamlining the major by reducing the number of options. They should also consider reducing the number of required classes in some of the options. The program should consider growing as new faculty with new expertise are added.