

PROGRAM FEE REQUEST

University: **University of Arizona**

College/School: **College of Agriculture and Life Sciences**

Department: **Soil, Water & Environmental Science**

Program: **BS Environmental Science**

Graduate **Undergraduate X** Undergraduate: Upper Division Lower Division Both

New \$ 350 **FALL 2016**
 (Proposed) (Effective Date)
Existing \$ \$
 (Proposed) (Current) (Year Approved)

Proposed fee to be applied as:
X Per Term or Per Unit, Total of _Units per Program

Proposed fee to be applied:
X Fall X Spring Summer Winter

Date Submitted: 11/1/15

Rationale for Request (~100 words)

Program fees will address emergent needs deriving from steady ENVIS program growth and an aging pedagogical infrastructure. Funds are required to enable improved student engagement in research, enhanced methods of instruction, securing and maintaining of upgraded technology and applications, increased laboratory sections for key courses, provision of laboratory staff support, and increased availability of field trips. Funds will enable: replacement of obsolete teaching lab equipment, undergraduate research projects, creation of a field-based summer capstone course, and student travel to professional meetings. The use of special equipment, technology and field studies in Environmental Science presents demonstrably higher costs of instruction delivery. Educational improvements will enhance graduate competitiveness for higher salaried positions. Funds will also be used for advising "at risk" students and mentoring to retain/grow diversity and increase access.

Compliance with Board Guidelines (~250 words)

Program fees will add to the quality of the student experience by enhancing the academic, experiential, and interpersonal skill sets for all students in the program. Student access and affordability will be maintained by administering set-aside revenues for need-based assistance for students unable to pay the program fee. The cost of instruction with the program fee would be comparable to the cost at institutions offering similar education and training in Environmental Science. The field of Environmental Science involves training in equipment-intensive laboratory sections (environmental microbiology, environmental chemistry, environmental physics), information technology, and field courses (environmental systems analysis, sampling methods, risk assessment), and as a result, cost of effective training is higher than many other fields of science and arts. Workforce demand projections for Arizona and nationally are higher than average in the area of Environmental Science. We must ensure that UA students in this growing field obtain state-of-the-art education. ENVIS program graduates will have a continued competitive advantage for hiring and promotion. Graduating trained and experienced professionals that have the necessary skills and knowledge to address issues related to the environmental sciences will lead to increased earning potential for those graduates.

Student Consultation (~100 words)

On April 8, 2015 SWES Department Head, Jon Chorover, and faculty advisors met with the ENVIS undergraduate representatives to discuss program fees. Overall response was favorable for the proposed program enhancements. On April 16, 2015, Dr. Chorover held mandatory ENVIS student assemblies at two different times for maximum attendance to get feedback from the general student body and the majority of all ENVIS majors attended. Students strongly favored program fees over additional and increased course fees for offsetting the cost of instruction. Student questions, suggestions and comments were strongly encouraged, and could be provided verbally, by email, or in person to Dr. Chorover. The overwhelming response from students was positive for initiating the program fee to provide for enhanced instructional resources. Students made suggestions for use of the funds that fit with the department's expected use, including the formation of an undergraduate advisory council to expand student input in SWES governance.

MARKET PRICING (~200)

As indicated by the data included with this application (see Excel spreadsheet tables) and below, the UA ENVIS

program is significantly underpriced relative to peer institutions for high quality programs in the major area of study (Environmental Science). The UA Environmental Science program would remain among the lowest cost options for both resident and non-resident students even after the \$350/semester fee were added. It is well established that hands-on, field, laboratory, and IT-based methods of instruction provide the highest quality learning experience to undergraduates. This problem-based and experiential learning approach is also inherently more expensive to deliver, because there is a higher cost associated with providing those opportunities. However, we have queried employers of our graduates, many of whom are private companies in the environmental consulting and environmental analytical industry, and there is clear consensus that the types of training they are seeking in graduates is precisely the type that we want to augment and improve upon by way of these program fees (i.e., intensification of hands-on laboratory, field and computational learning experiences with modern equipment). The students also recognize that the improved training will enable them to be more competitive for higher salaried positions upon graduation. As a result, they are in favor of the added investment.

Resident		FY 2016 Tuition & Fees	Requested Fee	Total Projected + Fee
1	U. New Hampshire	16,986		16,986
2	U Illinois-Urbana Champaign	15,626	1,296	16,922
3	U. Vermont	16,738		16,738
4	U California-Riverside	14,049		14,049
5	U California-Davis	13,952		13,952
6	U Minnesota-Twin Cities	13,790		13,790
7	Michigan State U	13,560		13,560
8	U. Massachusetts Boston	12,682	643	13,325
9	Virginia Tech	12,485		12,485
10	Rutgers New Brunswick	11,217	1,243	12,460
11	The University of Arizona	11,403	700	12,103
12	Auburn U.	10,424		10,424
13	U Wisconsin-Madison	10,416		10,416

ACCOUNTABILITY

Financial Aid Set-Aside Amount: 14%

Proposed Annual Revenue

Annual Program Fee Amount	\$	\$700
Number of Students Enrolled Annually	#	120
Total Annual Revenue	=	\$84,000

Proposed Annual Expenditures

Financial Aid Set-Aside (14%)	\$	\$11,760
Support Staff Expense	\$	\$37,565
Operating Expenses (10% institutional = \$8,400)	\$	\$34,675
Total Program Costs	=	\$84,000