

## Cover/Signature Page – New Programs Follow-up Report Template

Institution Submitting Request: University of Utah

Program Title: Bachelor of Science in Applied Mathematics

School or Division or Location: College of Science

Department(s) or Area(s) Location: Department of Mathematics

Recommended Classification of Instructional Programs (CIP) Code<sup>1</sup>: 27.0301

Board of Regents' Approval Date: 04/01/2010

Proposal Type (check all that apply):

Regents' General Consent Calendar Items		
<i>R401-5 OCHE Review and Recommendation; Approval on General Consent Calendar</i>		
SECTION NO.		ITEM
5.6.1	<input checked="" type="checkbox"/>	Three-Year Follow-Up Report of Recently Approved Programs
5.6.2	<input type="checkbox"/>	Two-Year Follow-Up Report of Fast Tracked Certificate

Chief Academic Officer (or Designee) Signature:

I certify that all required institutional approvals have been obtained prior to submitting this request to the Office of the Commissioner.

\_\_\_\_\_  
Signature

Date: 10/23/2012

Printed Name: *Name of CAO or Designee*

<sup>1</sup> CIP codes must be recommended by the submitting institution. For CIP code classifications, please see <http://nces.ed.gov/ipeds/cipcode/Default.aspx?y=55>.

Report – Third-Year Report Template  
 University of Utah  
 Bachelor of Science in Applied Mathematics  
 11/18/2013

**Program Description**

The Applied Mathematics BS is an interdisciplinary program providing a solid mathematical background while allowing exploration of other disciplines where Mathematics plays a fundamental role. The program is designed so that students can take electives from other departments on campus, the intention being to attract Mathematics majors to other disciplines and conversely attract students from other disciplines to Mathematics. This interdisciplinary component makes the Applied Mathematics BS attractive in the job market. The program was approved by the Regents on 04/1/2010 and started admitting students in Fall 2010.

**Enrollment and Revenue Data**

The FTE numbers below include only undergraduate totals, as the Applied Mathematics Major is an undergraduate degree.

Departmental/Unit Enrollment and Staffing Data	Prior to Program Implementation	Year 1		Year 2		Year 3	
		Est.	Actual	Est.	Actual	Est.	Actual
Total Department Student FTE <i>(Based on Fall Third Week Data)</i>			1,673		1,767		1,927
Total Department Faculty FTE <i>(A-1/S-11/Cost Study Definition)</i>			61		59		62
Student FTE per Faculty FTE <i>(from Faculty FTE and Student FTE above)</i>			27.43		29.95		31.08
<b>Program Level Data</b>							
Total Number of Declared Majors in Program	X	20	4	30	36	40	44
Total Number of Program Graduates	X		1		6		7
<b>Departmental Revenue</b>							
Total Revenue to Department <i>(Total of Funding Categories from R401 Budget Projection Table)</i>							
Departmental Instructional Cost per Student Credit Hour <i>(per Institutional Cost Study Definition)</i>		X		X		X	

**Institutional Analysis of Program to Date**

The Mathematics Department Undergraduate Committee identified in the Fall 2013 that this is the only Mathematics Major that does not require Foundations of Analysis II (Math 3220). The rationale behind not requiring Math 3220 was to reduce the course load for double majors, as this is typically a challenging

class. The unintended consequence of this choice is that Math Majors that were not able to pass Math 3220 would fall back to an Applied Mathematics BS. Since it is not possible to restrict the Applied Math BS to students pursuing a double major, the Undergraduate Committee is considering requiring Math 3220 in the future for the Applied Math BS. The material in Math 3220 is essential for Applied Mathematicians and cannot be covered in Numerical Analysis, as was suggested in the program proposal.

### **Employment Information**

Fourteen students have graduated with an Applied Mathematics BS thus far. Unfortunately, not all of these students participated in an exit interview and so there are several for which we don't have information. Seven of the eight students that we do have information for have continued their education in graduate school (one in Mathematical Biology, one in Applied Mathematics, one in Electrical Engineering, one in Computer Science, three in Physics) and the other is working as an engineer.