

**BOARD OF TRUSTEES
ACADEMIC QUALITY AND STUDENT SUCCESS COMMITTEE
Sudershan K. Garg, Chair
James E. "Ted" Roberts, Vice Chair
All Trustees are Members
James P. Tressel, *Ex-Officio***

**Thursday, February 19, 2015
1:00 p.m.**

**Tod Hall
Board Meeting Room**

AGENDA

- A. Disposition of Minutes for Meeting Held December 4, 2014**
- B. Old Business**
- C. Committee Items**

- 1. Student Affairs**

- a. Student Affairs Discussion Item**

- 1) Spring and Fall Enrollment Updates**

Tab 1

An update regarding spring and fall 2015 enrollment will be presented for discussion by Gary D. Swegan, Associate Vice President for Enrollment Planning and Management.

- 2. Academic Affairs**

- a. Academic Affairs Action Items**

- 1) Resolution to Authorize Conferral of Honorary Degrees**

Tab 2

Mr. Eric Speigel and Mr. Randall Craig Fleischer have been nominated to receive honorary degrees at the Spring 2015 commencement ceremonies. Board approval is required. Dr. Martin A. Abraham, Interim Provost and Vice President for Academic Affairs, will summarize the candidates' credentials.

2) Resolution to Approve Bachelor of Science Degree in Biochemistry **Tab 3**

Dr. Martin Abraham, Interim Provost and Vice President for Academic Affairs, Dr. Timothy Wagner, Chair of Department of Chemistry, and Dr. Michael Serra, Department of Chemistry, will present the resolution.

D. New Business

E. Adjournment

AGENDA ITEM: C.1.a.1.

AGENDA TOPIC: Spring and Fall 2015 Enrollment Updates

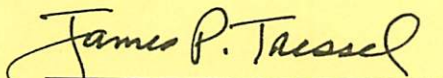
STAFF CONTACT(S): Gary D. Swegan, Associate Vice President for Enrollment Planning and Management; Jack Fahey, Vice-President for Student Success and Student Experience

BACKGROUND: Spring 2015 final census data, and Fall 2015 applicant, admitted, and Early SOAR results will be presented. Jack Fahey will provide an update on retention results through spring registration. In addition, he will provide a short update on progress with various retention initiatives

SUMMARY AND ANALYSIS: Spring 2015 budget targets were met, despite being down in both headcount and FTE. Fall 2015 new freshmen continue to be trending in a very positive direction, with applications continuing to run up approximately 150% over fall 2014, and offers of admission and Early SOAR registrations both running up in excess of 70% (as of late January).

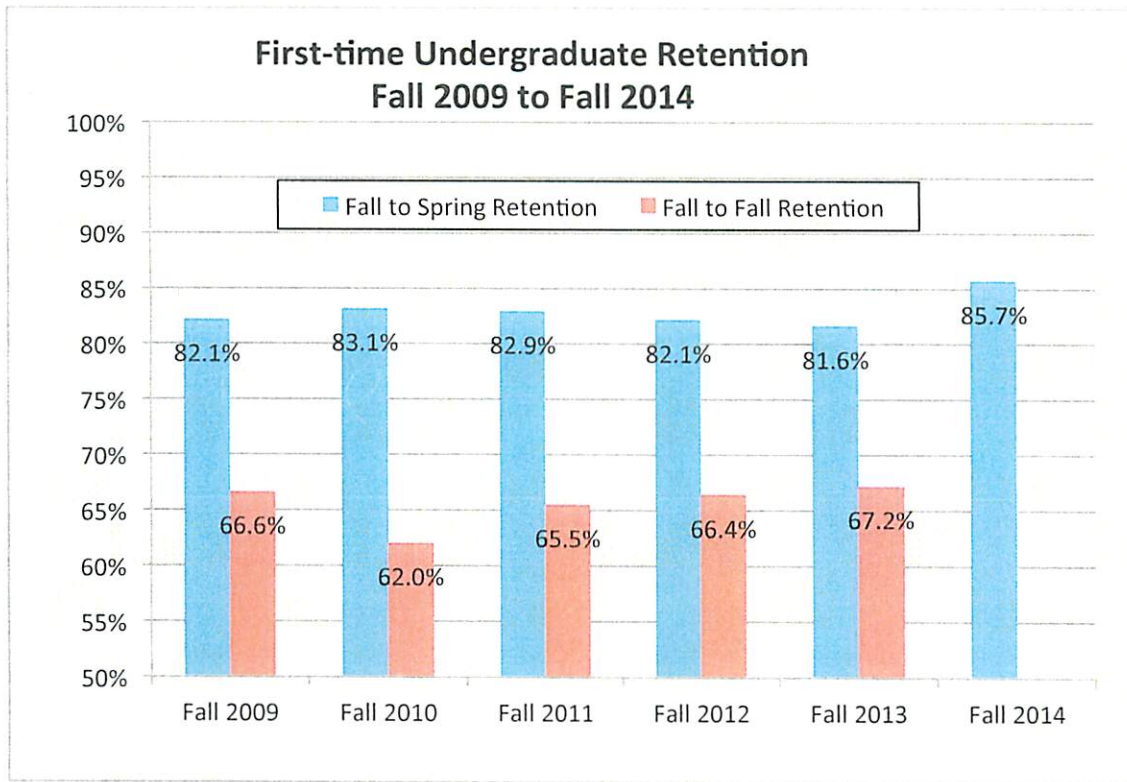
RESOLUTION: N/A – DISCUSSION ITEM ONLY

REVIEWED AS TO FORM AND CONTENT:


James P. Tressel, President

2015 Spring Retention Results
Academic Quality and Student Success
February 19, 2015

We experienced a 4.1% increase in Fall to Spring retention this term. This increase can be attributed to the quality of the incoming group of first-time undergraduates, the collective impact of many of the initiatives of the Strategic Plan, and a concerted effort throughout the University to maximize student retention from Fall 2014 to Spring 2015.



Source: Becky Geltz, Institutional Research

AGENDA ITEM: C.2.a.1.

AGENDA TOPIC: Resolution to Authorize Conferral of Honorary Degree

STAFF CONTACT(S): Dr. Martin A. Abraham, Interim Provost and Vice President for Academic Affairs

BACKGROUND: Eric A. Spiegel, President and CEO Siemens Corporation, is a native of Youngstown, Ohio, and a graduate from Poland Seminary High School. Mr. Spiegel holds an MBA from the Tuck School of Business at Dartmouth College. He received his A.B. with Honors in Economics from Harvard University. At Siemens, Mr. Spiegel is responsible for growing the U.S. business in the company's largest market. With \$19.2 billion in revenue, \$6 billion in exports and approximately 53,000 employees in the U.S., Siemens provides solutions for more affordable and efficient healthcare, the growing demands of cities and the nation's infrastructure needs, cleaner sources of energy production, and industrial productivity. Siemens has over 130 manufacturing sites across the U.S. and is represented in all 50 states. YSU is proud to have an accomplished Valley native as our commencement speaker.

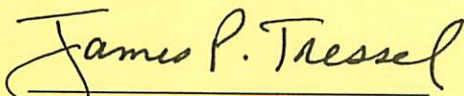
SUMMARY AND ANALYSIS: YSU Guidebook Policy 1005.01 (Honorary Degrees) states that recommendations for Honorary Degrees will be forwarded to the Board of Trustees for action. It is recommended that the Board approve the conferral of an honorary degree upon Mr. Eric A. Spiegel.

RESOLUTION:

**RESOLUTION TO AUTHORIZE
CONFERRAL OF HONORARY DEGREE**

BE IT RESOLVED, that the Board of Trustees of Youngstown State University does hereby authorize the conferral of a Doctor of Business Administration (D.B.A.) degree, honoris causa, upon Eric A. Spiegel, with all the rights and privileges attendant thereto.

RECOMMEND APPROVAL:



James P. Tressel, President

**Board of Trustees Meeting
March 11, 2015
YR 2015-**

BIOGRAPHY OF ERIC A. SPIEGEL

Eric A. Spiegel, President and CEO Siemens Corporation, is responsible for growing the U.S. business in the company's largest market. With \$22 billion in domestic sales, \$6 billion in exports and approximately 60,000 employees in the U.S., Siemens provides solutions for more affordable and efficient healthcare, the growing demands of cities and the nation's infrastructure needs, cleaner sources of energy production, and industrial productivity. Siemens has over 130 manufacturing sites across the U.S. and is represented in all 50 states.

Mr. Spiegel joined Siemens in January 2010 after 25 years of global consulting experience with complex organizations in the oil and gas, power, chemicals, water, industrial and automotive fields. Prior to joining Siemens, Mr. Spiegel was at Booz Allen Hamilton. An expert on the global energy industry, Mr. Spiegel co-authored the 2009 book *Energy Shift: Game-changing Options for Fueling the Future*, which has been translated into Arabic, Spanish, Korean and Japanese.

Mr. Spiegel was raised in Poland, Ohio. Mr. Spiegel holds an MBA from the Tuck School of Business at Dartmouth College where he was an Edward Tuck Scholar and received his A.B. with Honors in Economics from Harvard University. He is the Chairman of Ford's Theatre Society Board in Washington, D.C. and a member of The Board of Overseers at Dartmouth's Tuck School of Business. He is also Vice Chair of the Education and Workforce Committee at the Business Roundtable, a member of the Board of the U.S. Chamber of Commerce and a member of the President's Advanced Manufacturing Partnership Steering Committee.

AGENDA ITEM: C.2.a.1.

AGENDA TOPIC: Resolution to Authorize Conferral of Honorary Degree

STAFF CONTACT(S): Dr. Martin A. Abraham, Interim Provost and Vice President for Academic Affairs

BACKGROUND: Randall Craig Fleischer is the Music Director of the Youngstown Symphony Orchestra, the Hudson Valley Philharmonic and the Anchorage Symphony. Mr. Fleischer has appeared as a guest conductor with major orchestras in the United States and internationally including engagements with the Israel Philharmonic, Los Angeles Philharmonic, National Symphony, the symphonies of San Francisco, Houston, Seattle, Utah and San Diego and the Chamber Orchestras of St. Paul and Philadelphia. Mr. Fleischer is an active composer and educator, and is the winner of *Newsweek Magazine's* "Parent Choice Award" for his groundbreaking CD ROM of Peter and the Wolf, Mr. Fleischer is the only American conductor to receive this prestigious award. YSU is proud to have Mr. Fleischer as a commencement speaker and recipient of an honorary degree.

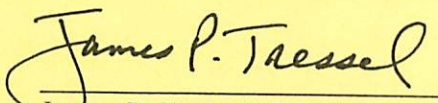
SUMMARY AND ANALYSIS: YSU Guidebook Policy 1005.01 (Honorary Degrees) states that recommendations for Honorary Degrees will be forwarded to the Board of Trustees for action. It is recommended that the Board approve the conferral of an honorary degree upon Mr. Randall Craig Fleischer.

RESOLUTION:

**RESOLUTION TO AUTHORIZE
CONFERRAL OF HONORARY DEGREE**

BE IT RESOLVED, that the Board of Trustees of Youngstown State University does hereby authorize the conferral of a Doctor of Music (Mus.D.) degree, honoris causa, upon Randall Craig Fleischer, with all the rights and privileges attendant thereto.

RECOMMEND APPROVAL:


James P. Tressel, President

**Board of Trustees Meeting
March 11, 2015
YR 2015-**

BIOGRAPHY OF RANDALL CRAIG FLEISCHER

RANDALL CRAIG FLEISCHER began his 7th season as Music Director of the Youngstown Symphony Orchestra (YSO). With three Music Director positions, a demanding guest conducting schedule, major awards and a career spanning four continents, Mr. Fleischer is making a substantial impact.

Mr. Fleischer has appeared as a guest conductor with many major orchestras in the United States and internationally including repeat engagements with the Israel Philharmonic, Los Angeles Philharmonic, National Symphony, the symphonies of San Francisco, Houston, Seattle, Utah and San Diego and the Chamber Orchestras of St. Paul and Philadelphia.

Mr. Fleischer is currently Music Director of three symphony orchestras – Hudson Valley Philharmonic, and the symphonies of Anchorage and Youngstown. In June 2007 he made his conducting debut with the Hong Kong Philharmonic Orchestra and appeared at the Český Krumlov International Music Festival numerous times.

Winner of *Newsweek Magazine's* "Parent Choice Award" for his groundbreaking CD ROM of Peter and the Wolf, Mr. Fleischer stands alone as the only American conductor to receive this prestigious award.

Randall Craig Fleischer first came to international attention, when, while serving his first of five years as Assistant, then Associate conductor of the National Symphony Orchestra, he conducted Dvorak's Cello Concerto with Mstislav Rostropovich as soloist during the NSO's 1990 tour of Japan and the U.S.S.R. This was the first time Rostropovich had played the cello in Russia since his forced exile in 1972. In 1992, Fleischer conducted an ensemble of over 70 cellos, including YoYo Ma, and a 190-voice chorus in the Kennedy Awards tribute to Rostropovich and in 1993, Mr. Fleischer conducted a private concert for Pope John-Paul at the Vatican. In 1995, Mr. Fleischer made his debut with New York City Opera conducting *The Magic Flute*.

Active as a composer, Mr. Fleischer is a national leader in the area of symphony rock and world music fusion. In March 2006, Mr. Fleischer premiered his original composition, *Triumph*, which features traditional Navajo ceremonial songs and dances and received a commission to write a Native American fusion work combining indigenous music from Alaska, Hawaii and Massachusetts entitled *Echoes* that premiered September 2008. Mr. Fleischer's *Rock Fusion* premiered in Youngstown in October 2011 followed by *Rocktopia* in 2012.

A passionate educator, Fleischer has co-authored several instructional pieces for children in collaboration with his wife, Heidi Joyce, which were premiered by the National Symphony Orchestra. Currently their children's programs, *Cool Concerts for Kids*, have been performed with great success across the country.

AGENDA ITEM: C.2.a.2.

AGENDA TOPIC: Resolution to Approve Bachelor of Science in Biochemistry Degree

STAFF CONTACT(S): Dr. Martin A. Abraham, Interim Provost and Vice President for Academic Affairs, Dr. Timothy Wagner, Chair of the Department of Chemistry, and Dr. Michael Serra, Department of Chemistry

BACKGROUND: The Ohio Occupational Wages and Employment guide predicts jobs in the fields of biochemistry and biophysics will increase 23 percent from 2010 to 2020. An individual with a degree in biochemistry can work in basic and applied research, education, healthcare, technical/scientific writing, intellectual/patent law, or bioinformatics. Youngstown State University has the staff and facilities to add a degree in Biochemistry with no obstacles. A survey of incoming students indicates a need for this degree program.

SUMMARY AND ANALYSIS: Based upon the study conducted by the Department of Chemistry, the availability of staff and resources, and the prediction that a degree in Biochemistry would graduate 10-15 students per year, it is prudent for Youngstown State University to apply to the Ohio Board of Regents to offer a Bachelor of Science degree in Biochemistry.

RESOLUTION:

**RESOLUTION TO APPROVE
BACHELOR OF SCIENCE DEGREE IN BIOCHEMISTRY**

WHEREAS, a Bachelor of Science in Biochemistry degree will serve the needs of people in Northeast Ohio and Western Pennsylvania who wish to develop an excellent foundation for careers in bioscience-related research, health care, life science, and forensic science; and

WHEREAS, the program will be an excellent foundation for students to pursue graduate programs in research and development in the private sector, in academia, and in health-related fields such as medicine, dentistry, or pharmacy; and

WHEREAS, the program will reside in the Department of Chemistry; and

WHEREAS, the Department of Chemistry possesses the essential facilities to allow for the addition of said program; and

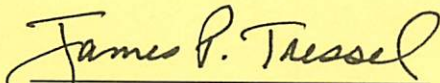
WHEREAS, Youngstown State University has faculty members with the requisite credentials to offer this degree; and

WHEREAS, it is the intention of the Department of Chemistry to seek accreditation for the degree through the professional organization ASBMB (American Society for Biochemistry and Molecular Biology); and

WHEREAS, the fiscal resources for the administration of this degree currently exist in the College of Science, Technology, Engineering and Mathematics;

NOW, THEREFORE, BE IT RESOLVED, that the Board of Trustees of Youngstown State University approves the offering of the Bachelor of Science in Biochemistry degree subsequent to the approval of said degree by the Ohio Board of Regents.

RECOMMEND APPROVAL:


James P. Tressel, President

Board of Trustees Meeting
March 11, 2015
YR 2015-

**Executive Summary for the Proposal of the
Bachelor of Science in Biochemistry Degree**
Offered and Administered by the Department of Chemistry,
College of Science, Technology, Engineering, and Mathematics

Overview

The Department of Chemistry at Youngstown State University is proposing to establish a Bachelor of Science in Biochemistry degree. This degree will expand the opportunities for YSU students and require no extra expenditures on the part of the university. The department already has the faculty, facilities, foundation in research, and the necessary coursework to create an excellent program. Offering a B.S. in Biochemistry will formalize courses already in place at YSU.

Although biochemistry was established as a separate discipline slightly more than a century ago, its roots run back centuries. It has become a fundamental STEM discipline – as fundamental a STEM discipline as biology, chemistry, physics, and mathematics. Youngstown State University's nearby sister institutions already have an established degree in biochemistry, which places YSU at a disadvantage in attracting students interested in the life sciences. The addition of a B.S. in Biochemistry degree will address this problem at YSU.

Biochemistry will serve students interested in the life sciences, especially those students interested in pursuing degrees in health-related fields or those who will seek post-baccalaureate degrees. According to "Best Jobs in America 2013" posted by CNNMoney (<http://money.cnn/pf/best-jobs/2013>), Biochemist was ranked 67th as one of the best jobs with an average income of \$70,700 and a potential growth rate of 30.8%. Careers, which would heavily rely on knowledge in biochemistry, were also highly ranked, e.g., general surgeon (ranked 4th, average salary, \$288,000), physician assistant (ranked 21st, average salary \$96,200), optometrist (ranked 27th, average salary, \$108,000), and family physician (ranked 41st, average salary, \$172,000).

Program Description

The Bachelor of Science in Biochemistry degree is recommended for those students interested in integrating the subjects of biology and chemistry. The cross-disciplinary nature of the degree provides students with a good foundation for careers in research and development in the private sector and in academia. Many students will continue their education in graduate schools or in health-related fields such as medicine, dentistry, or pharmacy. The degree may be earned in eight semesters if students average 16 hours per semester.

Rationale

Students are central to the mission of YSU. Developing a degree in biochemistry will better serve our students in a number of ways. It will expand the educational offerings in an already strong department in the STEM College. A degree in biochemistry provides an excellent foundation for students seeking careers in bioscience-related research, health care, and forensic science. YSU currently offers a Master's Degree in Chemistry with biochemistry as one option. In the future, YSU could explore the possibility of a 3 + 2 program in which a student could earn the undergraduate degree in three years and the graduate degree in two years. This program would provide a seamless transition between the undergraduate and graduate programs.

According to the "Ohio Bioscience Growth Report" of 2012, the state of Ohio has nearly 1,300 bioscience-related organizations that provide essential services or are involved in manufacturing, or research. Ohio's bioscience industry generated a \$4.58 billion payroll in 2011. Northeast Ohio is home to about 42% of the state's bioscience locations. In addition, in 2011, Ohio companies attracted nearly \$2.4 billion in funding from a variety of sources.

Students graduating from YSU with a B.S. in Biochemistry will have excellent opportunities for employment in one of the state's growing industries. Not only will YSU students obtain a good foundation in the principles of biology and chemistry that are essential to understanding biochemistry, but YSU will also give them multiple experiences in the application of the tools necessary for conducting bioscience-related research through our laboratory courses. Students will finish their studies with a capstone course in which they will conduct original research under the guidance of a professor in either the biology or chemistry departments.

In summary, the degree perfectly meshes with the mission of the university. It will expand students' educational options, provide students training to go on to post-baccalaureate programs in research and medicine, and develop students with skills in areas that are important to the economic growth of the state.

Courses

Course (name/number)	No. of credit hours (s.h.)	Major/ Core/ Technical	General Education	Elective	OTM, TAG or CT ² equivalent course	New/Existing Course
CHEM 1515/L/R Gen. Chem. 1/lab/recitation	5	X				Existing
CHEM 1516/L/R Gen. Chem. 2/lab/recitation	5	X				Existing

Course (name/number)	No. of credit hours (s.h.)	Major/ Core/ Technical	General Education	Elective	OTM, TAG or CT² equivalent course	New/Existing Course
CHEM 3719/L/R Org. Chem. 1/lab/recitation	5	X				Existing
CHEM 3720/L/R Org. Chem. 2/lab/recitation	5	X				Existing
CHEM 3739 Phys. Chem. 1	4	X				Existing
CHEM 3785/L Biochem. 1/lab	4	X				Existing
CHEM 3786 Biochem. 2	3	X				Existing
CHEM 5876 Enzyme Analysis	2	X				Existing
CHEM 4850 Chemistry Research	1	X				Existing
CHEM 4850L Chemistry Res. Lab	2	X				Existing
BIOL 2601/L Gen. Biol. 1/lab	4	X				Existing
BIOL 3702/L Microbiology 1/lab	4	X				Existing
BIOL 3711 Cell Biology	3	X				Existing
BIOL 3721 Genetics	3	X				Existing
Math 1571 Calculus 1	4	X				Existing
Math 1572 Calculus 2	4	X				
STAT 3717 Statistical Methods	4	X				Existing
STAT 3743 Probability and Stat.	4	X				Existing
PHYS 2610/L Physics 1/lab	5	X				Existing
PHYS 2611/L Physics 2/lab	5	X				
CHEM 3729	3			X		Existing
CHEM 3764	3			X		Existing

Course (name/number)	No. of credit hours (s.h.)	Major/ Core/ Technical	General Education	Elective	OTM, TAG or CT² equivalent course	New/Existing Course
CHEM 5821	3			X		Existing
CHEM 5822/L	4			X		Existing
CHEM 5832/L	3			X		Existing
BIOL 4800/L Bioinformatics	4			X		Existing
BIOL 4801/L Environ. Microbiology	4			X		Existing
BIOL 4829 Microbial Physiology	3			X		Existing
BIOL 4836/L Cell Biol.: Mol. Mech.	3			X		Existing
BIOL 4837 Cell Biology: Protein Biology Laboratory	1			X		Existing
BIOL 4890 Molecular Genetics	3			X		Existing
BIOL 4890L Mol. Genetics Lab	1			X		Existing
BIOL 5840 Adv. Microbiology	3			X		Existing

Program Sequence

Time period	Curriculum component	Time period	Curriculum component
Year 1	Courses/Activities	Year 1	Courses/Activities
Fall Semester	CHEM <u>1515/L</u> , Gen. Chem. 1 /Lab	Spring Semester	CHEM <u>1516/L</u> , Gen. Chem. 2 /Lab
	CHEM <u>1515R</u> , Recitation Gen. Chem. 1		CHEM <u>1516R</u> , Recitation Gen. Chem. 2
	MATH <u>1571</u> , Calculus 1		MATH <u>1572</u> , Calculus 2
	ENGL <u>1550</u> , Writing 1		ENGL <u>1551</u> , Writing 2
	Gen. Ed. Requirement (GER)		BIOL <u>2601/L</u> , Molecules and Cells
Time period	Curriculum component	Time period	Curriculum component
Year 2	Courses/Activities	Year 2	Courses/Activities
Fall Semester	CHEM <u>3719/L</u> , Org. Chem. 1 /Lab	Spring Semester	CHEM <u>3720/L</u> , Organic Chem. 2/Lab
	CHEM <u>3719R</u> , Recitation Org. Chem. 1		CHEM <u>3720R</u> , Recitation Org. Chem. 2
	CHEM <u>2604/L</u> , Quant. Analysis /Lab		PHYS <u>2611/L</u> , Gen. Physics 2/Lab
	PHYS <u>2610/L</u> , Gen. Physics 1/Lab		STAT <u>3717</u> or <u>3743</u>
Time period	Curriculum component	Time period	Curriculum component
Year 3	Courses/Activities	Year 3	Courses/Activities
Fall Semester	CHEM <u>3785</u> , Biochemistry 1	Spring Semester	CHEM <u>3786</u> , Biochemistry 2
	CHEM <u>3785L</u> , Biochemistry 1 Lab		CHEM <u>5876</u> , Enzyme Analysis
	BIOL <u>3721</u> , Genetics		CHEM <u>3739/L</u> , Physical Chem. 1 /Lab
	BIOL <u>3702/L</u> , Microbiology		BIOL <u>3711</u> , Cell Biology
	Upper-level CHEM elective		GER
	GER		
Time period	Curriculum component	Time period	Curriculum component
Year 4	Courses/Activities	Year 4	Courses/Activities
Fall Semester	CHEM <u>4850</u> , Chemistry Research	Spring Semester	CHEM <u>4850L</u> Capstone Res. Lab
	Upper-level CHEM and/or BIOL electives		Upper-level CHEM and/or BIOL electives
	GER		GER
	GER Speech – COMST 1545		Electives

Fiscal Impact Statement

B.S. in Biochemistry

	Year 1	Year 2	Year 3	Year 4
	FY16	FY17	FY18	FY19
Projected Enrollment				
Head-count (12+) full time (fall/spring avg unduplicated)	2	6	11	17
Head-count part time (fall/spring avg unduplicated)	-	-	-	-
Full Time Equivalent (FTE) enrollment annualized (no summer enrollment)	2.07	6.07	11.17	17.43
Projected Program Income				
Tuition (paid by student or sponsor)	19,200	57,500	106,100	165,000
Expected state subsidy	N/A	N/A	N/A	N/A
Externally funded stipends				
Other income (describe below)				
Total Projected Income	\$ 19,200	\$ 57,500	\$ 106,100	\$ 165,000
Program Expenses				
New Personnel				
New Faculty				
Full <u>Current faculty sufficient</u>	\$ -	\$ -	\$ -	\$ -
Part Time <u>no new sections needed</u>	\$ -	\$ -	\$ -	\$ -
Non-instruction (indicate role(s) in narrative section below)				
Full time (none)	-	-	-	-
Part time (none)	-	-	-	-
New facilities/space renovation (if applicable, describe below)	-	-	-	-
Tuition Scholarship Support (if applicable, describe below)				
University stipend support (if applicable, describe below) ₂	-	-	-	-
Additional library resources (if applicable, describe below)	-	-	-	-
Additional technology or equipment (if applicable, describe below)	-	-	-	-
Other expenses (describe below) (e.g. waived tuition and fees, travel, office supplies, accreditation costs)	-	-	-	-
Total Projected Additional Expense	\$ -	\$ -	\$ -	\$ -
Net Program Income or Expense	\$ 19,200	\$ 57,500	\$ 106,100	\$ 165,000
<i>without SSI considered</i>				

Assumptions:

0% Tuition Increase

5 students in the program year one. 12 students by year four.

50% of students in the program will be NEW students (others from CHEM or BIO major)

25% out of state students

SSI is not calculated or considered in fiscal statement due to potential flat/decreased allocation.

No additional expenses are anticipated.