Undergraduate Program Update

- Technology Upgrades for Teaching Labs
- Graduation and Retention
- Undergraduate Research
- New Programs
Technology Investments

Undergraduate Teaching Labs

Funds acquired from University Technology Fees:

- Biology: Complete set of 22 Compound Light Microscopes and a Phase Contract Digital Imaging System + new laptops to replace an 8-year old set = $121K
- Chemistry: 2 FT-IR Spectrometers, 2 Gas Chromatographs, updated software for NMR Spectrometer, 30 Desktop Computers and Monitors along with 24 Laptop computers = $130K
- CIS: Laptops and Portable Storage Cart = $35K
- EES: Pelcon Thin Section Machine and Rock Lab Grinding Saw and Sanding Lap Replacements = $60K
- Physics: 40 New Computers, Fast Pulse Instrumentation = $56K
- STEM/TUteach: 10 Laptops, 15 Document Cameras, 36 iPads = $31K

Total Investment For Improvements to Teaching Labs: $433K
### CST First Time Freshmen (FTF) 1 Year Retention Rates

<table>
<thead>
<tr>
<th>Incoming Fall Term</th>
<th>CST FTF</th>
<th>In CST 1 Year Later</th>
<th>CST Retention Rate (%)</th>
<th>TU Retention Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>879</td>
<td>624</td>
<td>71</td>
<td>87</td>
</tr>
<tr>
<td>2012</td>
<td>827</td>
<td>598</td>
<td>72</td>
<td>89</td>
</tr>
<tr>
<td>2013</td>
<td>920</td>
<td>656</td>
<td>71</td>
<td>90</td>
</tr>
<tr>
<td>2014</td>
<td>873</td>
<td>602</td>
<td>69</td>
<td>89</td>
</tr>
<tr>
<td>2015</td>
<td>1005</td>
<td>666</td>
<td>66</td>
<td>90</td>
</tr>
<tr>
<td>2016</td>
<td>1027</td>
<td>697</td>
<td>68</td>
<td></td>
</tr>
</tbody>
</table>

* Students who enrolled in Pharmacy school without completing a Bachelor's degree were not included

### CST 4 Year Graduation Rates

<table>
<thead>
<tr>
<th>Incoming Fall Term</th>
<th>CST FTF*</th>
<th>CST Graduation Term</th>
<th>Number of Graduates</th>
<th>CST Graduation Rate (%)</th>
<th>TU Graduation Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>834</td>
<td>By Summer 2015</td>
<td>114</td>
<td>14</td>
<td>30</td>
</tr>
<tr>
<td>2012</td>
<td>797</td>
<td>By Summer 2016</td>
<td>128</td>
<td>16</td>
<td>34</td>
</tr>
<tr>
<td>2013</td>
<td>895</td>
<td>By Summer 2017</td>
<td>207</td>
<td>23</td>
<td></td>
</tr>
</tbody>
</table>

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How to improve the CST rates?
Graduation and Retention

Plans for Improvement – CST

• Reorganization of CST Advising - 1 of 3 teams is devoted to First Year Advising (other 2 are grouped by disciplines)
  ➢ Focus on questions and problems specific to first year students
  ➢ Organize and run first year workshops to better assist students
• Orientation Advising
  ➢ Targets students with weak math skills that do not meet the prerequisites for fundamental science requirements
  ➢ Advise these students to enroll in two additional, introductory science courses in their first semester
• Math Tutoring: Math Consulting Center is organized and run by the math department and staffed by graduate and undergraduate tutors
Graduation and Retention

*Plans for Improvement – CST and TU*

- New reorganization of Temple University math and science tutoring center
- Now part of the Student Success Center (SCC), and includes:
  1. STEM Learning Lab
     - Math and science tutoring with expanded course offerings
     - Revised scheduling process and tutor training procedures
  2. Peer Assisted Study Session (PASS) Program
     - Weekly study meetings centered on group work and discussion
     - Used for large enrollment, introductory courses in biology, chemistry, and physics

*CST will work closely with SCC staff to address any unmet needs*
From Fall 2016 to Fall 2017, ~60-80 students per term (including Summer) taking part in the CST Undergraduate Research Program (URP)

URP Poster Session was held Oct. 6 in the SERC lobby, with a record 70 students presenting

9 URP students have applied this fall for travel grants to present work at national or regional conferences
In October 2016 we began talks with Hilary Link, the Dean of the Rome campus, as well as the Sara Sequin from the Study Abroad Office in hopes of offering a semester abroad for CST students in Spring 2018.

Due to a low number of applicants for Spring 2018, implementation will be delayed for 1 year.

Students will select 2 of 3 upper level elective courses. Under consideration are Biostatistics, Biochemistry and Contemporary Biology (a variable current topics course).

Students will also take Italian (required) and a Gen Ed course and will receive credit for World Society Gen Ed.
New Programs
Accelerated +1 Bachelor/PSM

- MOU agreements for +1 programs leading to a Professional Science Master’s Degree in 5 years have been completed:
  - Biology + Bioinformatics, Bioinnovation, Biotechnology, or Scientific Writing
  - Neuroscience: Cellular and Molecular + Bioinformatics or Biotechnology
  - Natural Sciences + Biotechnology or Scientific Writing
  - Chemistry + Forensic Chemistry

- Students accepted into the program will take 12 credits of graduate courses in the junior and/or senior year of their undergraduate program at undergraduate tuition rates

- These graduate level course credits will count as upper level electives for the bachelor’s degree