

# Chemistry, Department of

## Chemistry-Related Careers Or Advanced Graduate Studies

**Goal Description:**

The success of any program is whether its graduates find related work or pursue further graduate education.

RELATED ITEMS/ELEMENTS -----

RELATED ITEM LEVEL 1

**After Degree Placement**

**Performance Objective Description:**

Upon completion of the BS or MS program graduates will either find a chemistry-related job upon graduation (such as working in a research or analytical lab) or will go for graduate or advanced graduate studies.

RELATED ITEM LEVEL 2

**Job Or Advanced Program Placement**

**KPI Description:**

The indicator will be the proportion of our graduating MS students who either find a chemistry-related job or go for advanced graduate studies.

**Results Description:**

Eleven students completed their M.S. degrees this year. Five of these are going on to Ph.D. programs (at Auburn University, the University of Cincinnati, the University of Maryland, Texas Tech University and the Tokyo Institute of Technology), three are working in industry, two are teaching and one has just started looking for a job.

RELATED ITEM LEVEL 3

**Follow Former Students**

**Action Description:**

We will continue to follow our former students as they seek employment and admission to graduate programs. This is a continuous process.

RELATED ITEM LEVEL 2

**Job Or Graduate Program Place For BS Graduates**

**KPI Description:**

The indicator will be the proportion of our graduating BS students who either find a chemistry-related job or go for graduate studies.

**Results Description:**

This past academic year, 12 students graduated with chemistry majors and 19 students graduated with forensic chemistry majors. Of the 12, 5 are continuing their education, 6 are employed in chemically related jobs, and 1 is actively looking for a job. Of the 19, 5 are continuing their education, 4 are employed in chemically related jobs, 1 is actively looking for a job and we don't have any information on 9 of them.

RELATED ITEM LEVEL 3

**Follow Former Students**

**Action Description:**

We will continue to follow our former students as they seek employment and admission to graduate programs. This is a continuous process.

## Encourage Graduate Student Presentations At Professional Meetings

**Goal Description:**

Mentoring graduate students in professional conference presentations is the goal.

RELATED ITEMS/ELEMENTS -----

RELATED ITEM LEVEL 1

**Graduate Students Will Demonstrate Skills In Conference Presentations Of Research**

**Performance Objective Description:**

During the master's program, graduate students will demonstrate the presentation skills to present their research findings at professional conferences.

RELATED ITEM LEVEL 2

**Student Presentations**

**KPI Description:**

The number of presentations by graduate students at professional meetings will indicate the success of the department in preparing students to orally present their research results. We expect that every graduate student who completes their M.S. degree will have one or more publication, and most will have more than one presentation.

**Results Description:**

The number of presentations with graduate co-authors was 22 (22 presentations involving 16 graduate students).

Attached Files

 [Pubs2015-16](#)

RELATED ITEM LEVEL 3

**Research Presentations**

**Action Description:**

We will evaluate and direct our graduate students' progress in communicating their research results both at scientific meetings and in the peer-reviewed literature during 2016-2017.

**Mentor Graduate Students In Research Publications**

**Goal Description:**

Faculty researchers will mentor graduate students in research publications.

RELATED ITEMS/ELEMENTS -----

RELATED ITEM LEVEL 1

**Graduate Students Will Demonstrate Skills In Publishing Research**

**Performance Objective Description:**

During the master's program, graduate students will demonstrate the research skills to publish their research findings.

RELATED ITEM LEVEL 2

**Research Publications**

**KPI Description:**

The number of research publications with graduate student authors or co-authors will indicate departmental success in preparing students to report research findings in written form. We expect that all graduate students who complete their M.S. degrees will have one or more publications, and most will have more than one presentation.

**Results Description:**

In this past academic year, there were 5 peer-reviewed publications with three graduate student co-authors. As always, it is appropriate to remind the reader that publication often lags behind student completion. It is also appropriate to mention that in certain fields, the work of many different students might result in one single paper. The number of presentations with graduate co-authors is much larger (22 presentations involving 16 graduate students).

Attached Files

 [Pubs2015-16](#)

RELATED ITEM LEVEL 3

**Research Communication**

**Action Description:**

We will evaluate and direct our graduate students' progress in communication their research results both at scientific meetings and in the peer-reviewed literature during 2016-2017.

**Procure Appropriate Resources To Facilitate The Academic Mission Of The Department**

**Goal Description:**

The department will monitor the classroom, laboratory, research, and out-reach (service) needs of the unit. Budget requests will reflect these needs.

RELATED ITEMS/ELEMENTS -----

RELATED ITEM LEVEL 1

**Recruitment Of Graduate Assistants**

**Performance Objective Description:**

The department diligently recruits graduate assistants in an effort to reduce the number of undergraduates teaching laboratory sections.

RELATED ITEM LEVEL 2

**Number Of Graduate Assistants**

**KPI Description:**

In an effort to lower the number of undergraduate assistants in the lab, there is a need for an increase in graduate assistants.

**Results Description:**

In the Fall 2015 semester, there were 18 graduate assistants (Janaka Abeysinghe, Md Nure Alam, Udana Ariyaratne, Brianna Bittner, Matthew Danker, Xinmei Dong, Dulamini Ekanayake, Sobiya George, Chathuranga Hewa Rahinduwage, Manpinder Kaur, Chamila Priyadashani Manankandayalage, Nicholas Pandorf, Jacob Perry, Thiwanika Ratnayake, Reny Roy, Hemanatha Siyambalagoda, Victoria Spenn (Jackson), Shadi Yavari). There were also 18 graduate assistants (Janaka Abeysinghe, Md Nure Alam, Udana Ariyaratne, Brianna Bittner, Matthew Danker, Xinmei Dong, Dulamini Ekanayake, Ramesha Dilhani Gaspe Ralalage, Sobiya George, Chathuranga Hewa

Rahinduwage, Manpinder Kaur, Chamila Priyardashani Manankandayalage, Nicholas Pandorf, Jacob Perry, Thiwanka Ratnayake, Reny Roy, Hemanatha Siyambalagoda, Shadi Yavari) during the Spring 2016 semester. Victoria Spenn (Jackson) graduated at the end of the fall term, but a new student entered keeping the number constant from the fall to the spring. Compared to last fall, we were down by 5 graduate students and compared to last spring, we were down by 3 graduate students. To achieve our goal, these numbers need to increase.

RELATED ITEM LEVEL 3

**Make Offers to New Students**

**Action Description:**

Eleven of our graduate students completed their degrees this past year (1 in the fall semester, 3 in the spring semester and 7 during the summer). We have made a few offers of admission, but our applications are down. We speculate that since, in previous years, we were restricted in the number of positions we could offer and, consequently, we had to reject students who were well qualified, that resulted in a decreased number of applications from those schools. This is a problem especially for applications from schools in Sri Lanka. Our prediction from last year (that our total number of students would drop) has come to pass. If possible, we need to admit all appropriately qualified students.

**Provide Appropriate Personnel Resources For The Unit**

**Goal Description:**

The department will assess the personnel (staff and faculty) needs of the unit on an annual basis. Annual funding requests will reflect these needs and hiring decisions will be based on these needs. The department office will provide appropriate resources and encourage faculty and staff to participate in development opportunities.

RELATED ITEMS/ELEMENTS -----

RELATED ITEM LEVEL 1

**Request Additional Faculty Lines**

**Performance Objective Description:**

The department is still in need of additional faculty lines to meet the demands for upper level and core courses. A request will be submitted through the PBR process for new lines.

RELATED ITEM LEVEL 2

**New Faculty Line(s)**

**KPI Description:**

While we requested new positions last year, none were forthcoming. The need still exists, so new faculty lines will be sought even in economically bleak times.

RELATED ITEM LEVEL 3

**Faculty Flux**

**Action Description:**

As stated above, Dr. White has retired. Dr. Chasteen is also going to retire at the end of the coming year, but he has a medical leave this fall. Three of us are taking on overloads to cover Dr. Chasteen's load. If there had been more notice, we might have handled things differently. We will be again conducting two tenure-track faculty searches this fall.

**Update to Previous Cycle's Plan for Continuous Improvement**

**Previous Cycle's Plan For Continuous Improvement (Do Not Modify):**

Once again, the situations that we are faced with continue. The challenges continue to be challenges (and we have lost ground), and we try to address them in the best way that we can.

Since we were restricted in the number of graduate assistant positions that we could offer, we need to be able to market the offers more favorably. Hopefully the new graduate coordinator can work with the College of Sciences Dean's Office to make this happen.

We will search for two positions in the coming year--to replace Paul Loeffler and Ozcan Gulacar, and we will continue to make the case that additional faculty lines are needed. For the Fall 2015 term, nearly every single class was full to capacity just prior to the first payment deadline. More students wanted to add our courses.

We will continue to encourage our graduate students to present their research results in appropriate venues.

We will continue to follow our former students as they grow professionally and we will keep track of our newest graduates as they move on.

We will offer CHEM 3438 again next summer and we will make sure that the appropriate advisors are aware of this offering.

Lastly, we recently found out that some of our laboratory sections exceed the requirements of the American Chemical Society--they are too large. We will adjust the size so none of the labs exceed 24 students. This will have the greatest impact on CHEM 1406 (our first semester course for non-majors) and on CHEM 1411 (general chemistry I).

**Update of Progress to the Previous Cycle's PCI:**

We hired Christopher (Kit) Zall to replace Paul Loeffler and Adrian Villalta-Cerdas to replace Ozcan Gulacar.

We lowered the laboratory section size from 32 to 24 for CHEM 1406 and CHEM 1411 (in keeping with ACS requirements).

As promised, we offered CHEM 3438 during the ten-week summer term. Enrollment is growing for the summer offering.

**Plan for Continuous Improvement**

**Closing Summary:**

Not surprisingly, once again, the situations that we are faced with continue. The challenges continue to be challenges (and we have lost ground), and we try to address them in the best way that we can. Since we were restricted in the number of graduate assistant positions that we could offer, we need to be able to market the offers more favorably. Hopefully the graduate coordinator can work with the College of Science and Engineering Technology Dean's Office to make this happen. We will search for two positions in the coming year--to replace Rick White and Tom Chasteen, and we will continue to make the case that additional faculty lines are needed. For the Fall 2016 term, nearly every single class was full to capacity just prior to the first payment deadline. More students wanted to add our courses. We will continue to encourage our graduate students to present their research results in appropriate venues. We will continue to follow our former students as they grow professionally and we will keep track of our newest graduates as they move on. We will offer CHEM 3438 again next summer and we will make sure that the appropriate advisors are aware of this offering. Lastly, in this next year we expect to offer additional laboratory sections for CHEM 2123, and we will gather the information to do this during the fall 2016 semester. We didn't do this for the fall 2016 semester because we are short handed (due to a retirement).

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