

Department of Chemistry
Administrative Activities Review (AAR)
9/27/2018

I. **Basic Facts and Description of the Administrative Unit**

- a. **Mission and Goals:** The administrative staff of the Department of Chemistry supports undergraduate degrees (BS and BA) and graduate degrees (MS and Ph.D.) in chemistry. Additionally, the department provides facility services (instrumentation and the chemical stockroom) to other departments in the College of Arts and Sciences as well as schools across campus (CPSPE and the College of Engineering). The staff supports the immediate and long term educational goals of the student populations. Additionally, the facilities aim to provide efficient service at a minimal cost to both the users and the University.

- b. **Services:** The administrative components of the Department of Chemistry consists of a Chair, a departmental administrative assistant, and a departmental secretary. Additionally, there are several positions that support the instructional and facility activities of the department. With regard to instructional activities, there are two laboratory managers (one for freshman level chemistry and one for organic chemistry). With regard to facilities, there is a fiscal administrator who acts as the building/stockroom/purchasing manager, as well as two staff members associated with the Magnetic Resonance Center (the director and a staff engineer). There is a postdoctoral scientist affiliated with the center, but this position is supported by CPSPE.
 1. The work effort of the Chair: The Chair's effort is currently split between the Departments of Chemistry and Physics; the split is approximately 75%/25% in favor of chemistry due to the size of the chemistry department and its facilities. The Chair meets regularly with the full time faculty members to discuss immediate and regular departmental issues as well as short and long term goals. The Chair also meets with students and addresses student complaints, addresses concerns of the faculty and student body, manages the budget of the chemistry department, oversees the graduate program, answers inquiries from parents and prospective students, and attends to other administrative matters related to the unit.
 2. Work effort for the administrative assistant is clerical, and includes activities such as PeopleSoft reports, scheduling, PAFs, communications, budget, TAAR preparation, and PO processing. Of this work, 40% concerns

daily departmental function, and 60% concerns the graduate program, including graduate student recruitment, registration, and degree completion (oral and final exam management).

3. Work effort for the administrative secretary is also clerical, with more of a focus on the undergraduate student issues, such as degree clearance and registration problems. The administrative secretary also assists with faculty needs, such as test preparation and copying and administrating the departmental seminar series. Lastly, the administrative secretary assists the chair with information request and advisory functions, such as the annual advisory board meeting. The percentages for these three areas of activity are 40, 40 and 20% respectively.
4. The work effort of the fiscal administrator concerns directing the chemstores facility, which involves equal effort on dealing with vendors to the department as well as managing the chemstores purchasing and inventory and student assistant workforce. Each of these areas contributes 30% of the position's effort. In addition, the fiscal administrator acts as the building coordinator, addressing maintenance and repair of Knight Chemical Laboratory's systems such as ventilation and liquid nitrogen storage; this occupies 20% of the administrator's time. Lastly, this position oversees maintenance and repair of instrumentation involved in the upper level undergraduate laboratories; this also occupies 20% of the administrator's time.
5. The work effort of the supervisor of chemical laboratories works on directing the freshman chemistry laboratory classes, which comprises a significant portion of the service teaching of the department and the bulk of the teaching assistant activities. 35% of the position's time involves preparing laboratories as many as 1500 students per semester, and 25% involves direct management of the TA workforce. The remaining time concerns working with the faculty director of freshman chemistry on teaching and curricular activities as well as administrative duties concerning grading, student complaints, and academic honesty issues
6. The work effort of the chemical store keeper primarily involves management of the organic laboratories. 60% of the position involves direct management of the laboratories, curation of equipment and glassware, and purchasing of chemical reagents. The remaining 40% involves management of the organic chemistry TA workforce and chemical waste disposal generated from the organic chemistry lab experiments.

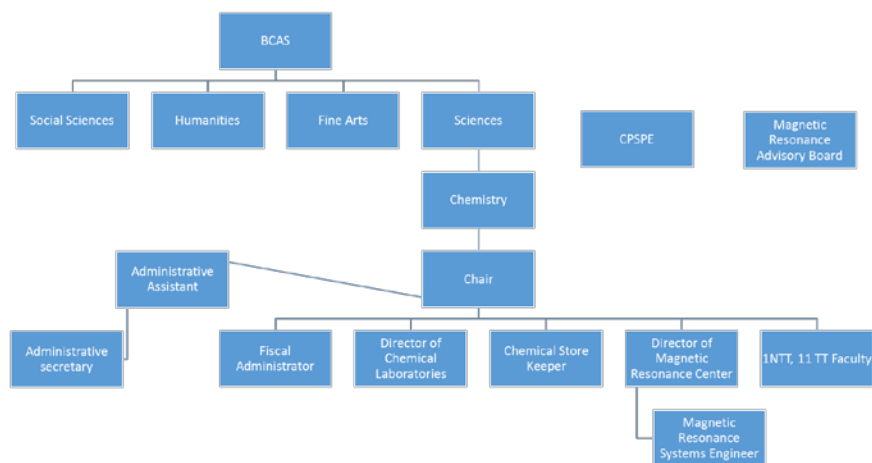
7. The work effort of the director of the magnetic resonance center is in charge of directing the day-to-day management of the facility (40% of his effort). The remainder of his effort involves sample scheduling and data processing, training of new users, directing center personnel, and managing external samples. The director is also involved in soliciting external samples, which provides much needed revenue for the facility, but this is not currently a part of his job description.
 8. The work effort of the nuclear magnetic resonance systems engineer is to maintain and repair the resonance instrumentation, and to assist users with instrumentation problems. The systems engineer also assists with departmental instrumentation repair and maintenance outside the facility, and maintains the cryogenics for all of the facility instrumentation.
- **Critical Partners:** The department of chemistry works most closely with the department of biology and the College of Polymer Science and Polymer Engineering. The Magnetic Resonance Center is a joint facility between CPSPE and Chemistry; this can be considered a critical partnership. A postdoctoral support staff member is supported by CPSPE and is not part of Chemistry.
 - **Customers:** The Chair, Administrative Assistants and staff support thirteen TT and NTT faculty members, as well as approximately fifty five graduate students. Additionally, there are more than 1200 undergraduate students who are served by the department and its administration. The chemical stockroom serves numerous departments and colleges on campus, including biology, geology, CPSPE, and the college of engineering. Similarly, the magnetic resonance center also serves multiple departments and colleges on campus; additionally this center serves and generates revenue from local, state, and international industry.
 - **Key Performance Analysis:** As a metric of our performance, the table below shows the number of undergraduate, MS, and Ph.D. degrees produced by the department over the past five years

IR Data	AY 2014	AY 2015	AY 2016	AY 2017	AY 2018
UG Degrees	33	30	39	33	26
Masters Degrees	1	33	13	17	12
Ph.D. Degrees	11	6	9	7	13

- **Brief Assessment.** The Department of Chemistry has remained stable with regard to enrollment and funding from the University. However, there has

been a loss of faculty due to departures, retirements, and tenure declinations, with the department currently at 2/3 of its faculty numbers compared to a decade ago.

- c. **Resources:** The Department of Chemistry has a strong program that provides multiple undergraduate and graduate degree options while facilitating groundbreaking research by its faculty.
- Personnel:** Department of Chemistry falls under the Natural Sciences Division of the Buchtel College of Arts and Sciences. The administrative employees, listed above, are shown in the organizational chart below. This support structure serves chemistry students (150 undergraduate majors, 55 graduate students, and 1200 undergraduate service teaching students) and the twelve faculty members in the department. Several of the personnel also serve other departments, as described in section c. The number of TAs in the Department has not decreased over the past few years, but increasing pressure on offering competitive salaries might decrease the number of TAs if the budget remains flat.



- Financials:** The table below shows the total budget for the department including expenses for administrative costs (administrative salary and stipends) along with faculty salaries. Outside of stipends and salaries, the chemistry budget is used for supplies and services (which includes instrumentation support) as well as travel and hospitality, which is used for the seminar series as well as support for faculty travel to meetings.

The TA budget has been flat at approximately \$700,000 for the past few years. For the past five years, 99% of the annual allocated budgets were used.

<i>Operating Budget - 201110</i>	<i>2013</i>	<i>2014</i>	<i>2015</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>
	\$2,944,495.35	\$2,763,559.84	\$2,774,123.21	\$2,639,774.57	\$2,901,137.71	2,638,980.68
Faculty/PT Salaries	\$1,659,070.70	\$1,527,608.60	\$1,522,059.60	\$1,429,023.00	\$1,504,389.72	\$1,502,403.50
Faculty Summer Salaries	\$126,386.20	\$105,092.05	\$99,896.20	\$94,420.35	\$135,515.03	\$96,685.50
Staff Salaries	\$363,650.51	\$376,788.36	\$375,608.65	\$359,725.66	\$374,493.13	\$373,329.57

- Equipment and Technology:** The department has four major equipment centers: The Magnetic Resonance Center, The X-ray Center, the Center for Laser and Optical Spectroscopy, and the Mass Spectrometry Center. All four house high-end research grade instrumentation that is used by the chemistry department, other departments and schools on campus, as well as external industrial and academic users. In addition, the department has a significant amount of instrumentation directly administered by the department, including a GCMS, an HPLC, an ICP-OES, a UV-visible spectrometer, a fluorimeter, a benchtop NMR spectrometer, electrochemical apparatus, and a diamond anvil IR spectrometer. The department also maintains a tissue culture facility that is used in both teaching and research.
- Space:** The administrative staff occupy offices in Knight Chemical Laboratory, and there is ample space for all of the administrative needs in the department.

II. Future Plans

- Potential Changes:** Currently, in spite of the financial duress of the University, the department is doing well in its educational and research goals. One key direction that the department is moving toward is improving relationships with local chemical industry. This is key for helping to finance our instrumentation facilities through external samples, as well as facilitating employment opportunities for our graduates. This is a distinctive advantage of our institution over our regional competition.
- Trends:** The demand for professional chemists at all degree levels remains strong. In terms of research, funding opportunities are moving more toward the National

Institute of Health, and our faculty are moving in that direction, with currently seven active NIH grants in the department.

One recent concern for the department is a drop in the number of professional students (such as nursing and engineering) taking chemistry classes; hopefully this is a temporary drop.