

Workload Policy for Missouri S&T Department of Chemistry

March 16, 2020

Drafted by the Personnel Committee, Dr. Jay Switzer, Chair, Dr. Thomas Schuman, Dr. Garry Grubbs, and the Chair, Dr. Rainer Glaser

To be presented to the faculty for feedback and approval in April 2020

A. Workload Policy for T/TT Faculty

Faculty members in the Chemistry Department at the Missouri University of Science and Technology are expected to contribute to the traditional areas of teaching, research/creative activity and service. The distribution of effort between these three areas will vary for different faculty members, but for a research-active tenured or tenure-track faculty this is typically defined as 40% teaching, 40% research, and 20% service. The department Chair has the responsibility for determining the workload of each faculty member using the following general guidelines.

This document describes expectations for a typical workload of 40% teaching, 40% research, and 20% service (“40:40:20”). In addition, the document describes conditions that may lead to a change of the workload assignments in the three areas.

The discussion of teaching is cast in terms of section credits, where it is understood that 6 section credits equal a 40% effort (16 hours per week during the academic year), that is, three section credits equal 20% (8 hours per week). The discussion of research and service are cast in terms of percent effort and of hour per week during the academic year.

This document describes expectation based on effort (i.e., time dedicated to various tasks) and therefore addresses items that can be quantified. The sum of these quantifiable items determines workload assignments and provides the basis for annual evaluations. Issues dealing with relative quality are addressed in annual evaluations guidelines and post-tenure review guidelines. In teaching, for example, relative quality assessments will include evaluations of syllabi, educational materials, course organization, student teaching evaluations, testimonials by students and colleagues.

Workload reassignments are not usually made on a year-to-year basis. Instead, productivity will be assessed in each area every year and a new 3-year average will be determined every year in every area. Moreover, the 3-year averages must not lead to a workload reassignment but they can be a basis for adjustment if a workload reassignment seems indicated.

A.1. Teaching

The Missouri S&T Department of Chemistry (DoC) regards a full-time teaching workload for a faculty with a 40% teaching workload as 12 section credits per year or the equivalent thereof, plus a minimum of 2 office hours per week. A section credit is defined to be one contact hour per week for a lecture course or 3 contact hours per week for a laboratory course. With typical 3h-lecture courses and 1h-lab courses, the full-time teaching load of 12 section credits per year is commonly referred to as a 2-2 teaching load; two courses of either type in each semester.

Faculty typically teach classes both at the undergraduate level and at the graduate level in their area of research expertise. While upper-division undergraduate courses and graduate courses

usually have moderate to low enrollments, some lower-division undergraduate courses traditionally have very large enrollments (up to 600) and require complex course management and extensive time for interactions with students that greatly exceed normal office hour traffic and/or normal email communications. For such courses with very large enrollments, each group of 125 students counts as one course in the evaluation of teaching productivity. For example, a faculty member teaching one 3h-lecture course with an enrollment of 250 students will be credited 6 section credits in the annual evaluation of teaching productivity.

In addition to lecture and laboratory contact hours, the education of graduate students in research is an essential part of the mission of science faculty at a research university with a vibrant graduate program. The Ph.D. degree is a research degree, and considerable effort is expended to teaching research methods and to providing intellectual guidance to graduate students in the laboratory, in group meetings, in meetings of interdisciplinary working groups, and in one-on-one consultations. This teaching of graduate students in the research group includes, among other items, instruction on laboratory and computational methods, on information access technology and discipline-specific techniques for searching the chemical literature, and on drafting and editing of manuscripts and dissertations. For this reason, 1 section credit will be credited to a faculty member for each graduate student enrolled in Chemistry 6099.

One of the competitive advantages of Missouri S&T is its strength in integrating undergraduate students in research. The First-Year Research Experience (FYRE) and the Opportunities for Undergraduate Research Experiences (OURE) programs are defining the research culture on the S&T campus. For this reason, 0.5 section credit will be credited to a faculty member for each undergraduate student enrolled in Chemistry 4099, OURE, FYRE, summer REU, or UGSRS project. To ensure proper mentoring, the total section credit for undergraduate research cannot exceed the total section credit for graduate student mentoring.

It is Department of Chemistry policy that faculty members can recruit into their research groups up to two graduate students who are supported by the department with Graduate Teaching Assistantships (GTA). Situations in which faculty have larger research groups will be discussed in section "Research".

For research groups with 0-2 graduate students, the following situations may serve to exemplify the teaching workload policy: A faculty member with an active research group of 2 graduate students and 2 undergraduate students receives 4 section credits. Such a research-active faculty member would be on a 1-1 teaching load. A faculty member with a research group of 1 graduate student and 1 (or more) undergraduate students would receive 1.5 section credits and can expect a teaching workload of 3 courses per year. A research-active faculty member without any graduate students (and any number of undergraduate students) will be assigned a 2-2 teaching workload.

Faculty members with reduced research activity / research productivity will be assigned a higher percent teaching workload and/or additional service workload (vide infra). The increase of the percent teaching workload determines the scope of additional teaching assignments based on the above equalities between percent effort and section credits.

A.2. Research

To fulfill its research and graduate education missions, the Missouri S&T Chemistry Department expects its faculty to establish an active program of research or scholarship at a level consistent

with the expectations of the discipline. Excellence in research and scholarly activity helps the professors stay abreast of their fields, brings prestige to the university, helps in raising the rankings of the department and the university, and helps in the recruiting of both undergraduate and graduate students as well as in the recruiting of new highly talented faculty.

The Missouri S&T Department of Chemistry regards a full-time research workload for a faculty with a typical 40% research workload as equivalent to 16 hours per week (i.e., 5% equals 2 hours per week). The research productivity is determined largely by the number of publications in high-impact journals, literature citations, securing of federal and industrial funding in the form of grants and contracts, patents, contributed and invited presentations at regional, national and international conferences, and research awards from national and international societies. External grants that support graduate students are particularly important, because they allow the department to grow its graduate program.

A.2.1. Standard Expectation for Research Productivity: Research productivity is expected of a faculty member irrespective of the availability of external funding and/or graduate student assistants. The following description of faculty research productivity applies to faculty without graduate students as well as to faculty with up to two GTA supported graduate students.

We consider the following equalities: Each of two full papers accounts for 10% research effort; each of two conference presentations accounts for 2.5% research effort; each grant proposal to an external funding agency or having \$120k research funding with overhead accounts for 15% research effort.

A revised resubmission of a grant proposal counts half of a new proposal. Faculty engaging in collaborative research may claim partial credit for papers and presentations with additional “corresponding authors” on the author line. We understand “corresponding authors” in the way the term is used by the publication division of the American Chemical Society. For collaborative grant proposals, the faculty’s share equals the percent credit assigned on the PSRS form of the OSP.

A.2.2. Reduced Research Activity / Productivity: Lack of research productivity leads to a reduction of the percent share of the research workload with a concomitant increase in the percent share(s) of the teaching workload and/or the service workload.

For example, a faculty member who publishes only one paper along with two conference presentations and the submission of one proposal will be reassigned to a 30% research workload share. In another example, a faculty member meeting the paper and presentation requirements but lacking a proposal submission, will be reassigned to a 25% research workload share.

A.2.3. High Research Productivity: A faculty member who exceeds the standard research productivity will be rewarded by earning a higher score in the annual evaluation. In addition, this faculty member may be considered for an increase in the percent research workload.

A.2.4. Research Funding and Buyout Option: Faculty members can, subject to the approval of the faculty member’s Chair, negotiate for a reduction in teaching workload contingent upon the faculty member’s ability to obtain external funding to release a portion of their academic year

salary. Funds generated from external grants in this fashion are to be returned to the faculty member's department to allow the hiring or compensation of teaching faculty to replace the teaching services not covered as a result of the faculty member being released from their teaching commitment.

To obtain the maximum allowable additional release of 3 section credits per year, a faculty member would have to generate from external grants, at a minimum, the larger of 10% of their academic year salary or the actual cost to hire a qualified replacement instructor, with the actual amount to be negotiated by the department Chair and approved by the Provost.

The buyout option leads to an adjustment of the percent research workload but it does not scale the standard expectations for research productivity. For example, a faculty member with an initial 40:40:20 workload and approved for a buyout of 3 section credits (10% workload in one year) will be assigned to 30:50:20 workload distribution. Even though the faculty member now has more time for research, the evaluation of this faculty member on research is still based on the 40% research workload. Any additional increase in research productivity can be used to seek an increase in the percent faculty research workload.

A.3. Service

The Missouri S&T Department of Chemistry regards a standard full-time service workload for a faculty to be a 20% service workload, that is, an effort equivalent to 8 hours per week.

The service productivity is determined largely by faculty service activities that include (a) student-oriented services (student advising, design team advising, instructional support activities and supervising), (b) committee work related to faculty self-governance (department, college, S&T campus, and UM system), service to the professional community at the local, national, or international levels (peer review of papers and proposals, organizing symposia and conference activities, presiding at symposia, business in ACS committees, serving as officers in professional societies, etc.), and (d) outreach service to promote science, science communication and STEM advocacy.

Service by faculty members is evaluated based on self-reported, reasonable estimates of efforts listed in the annual update document (list event, date, effort). Effort need to be given in hours and total effort is averaged over the nine-month academic year (39 weeks) to obtain a "weekly service hour average". Faculty with a 20% service workload assignment meet service expectations if their weekly service hour average exceeds 6 hours.

The percent service workload share may be increased for faculty members who demonstrate a significantly greater amount of service activities. Such activities may include major curriculum reform activities, course redesign and development efforts, safety initiatives, lab experiment redesign or development, professional assessment activities, etc.

Percent service workload shares rarely will exceed 30% or fall below 10%.

A.4. Special Circumstances

The department Chair should make every effort to assign workloads consistent with these guidelines. However, it is recognized that fluctuations in enrollment and changes in the division of a faculty member's teaching and research emphasis over time might make it necessary for

there to be a temporary deviation from the guidelines. For instance, for tenure-track faculty in the first three years of their tenure tract, the Chair may elect to assign 6 section credits per year, so that the faculty can establish research programs, write proposals, recruit graduate students, and develop new courses.

Contracted release of an additional 3 section credits per year may accompany positions such as endowed chair, associate Dean, or LEAD director. **No person is expected to receive more than a total release of 9 section credits per year (commonly referred to as a 0-1 teaching load).** Deviations from the guidelines may also be warranted in the event of pregnancy, childbirth, primary care of a newborn child, or unusual medical or family circumstances consistent with other University policies.

B. Workload Policy for NTT Faculty

The Missouri Department of Chemistry values NTT teaching faculty and NTT research faculty and appreciates their important contributions to the department. The distributions of effort between the three areas of teaching, research and service traditionally have been 100% teaching, 0% research, and 0% service for NTT teaching faculty and 0% teaching, 100% research, and 0% service for NTT research faculty, respectively. Going forward, the department Chair has the responsibility for determining the workload of each NTT faculty member using the following general guideline and with the general goal to increase the percent service workload up to 20%.

The Missouri S&T Department of Chemistry traditionally regarded a 100% full-time NTT teaching workload as 30 section credits per year or the equivalent thereof, plus a minimum of 4 office hours per week (commonly referred to as a 5-5 teaching load). Note that equating 12 section credits with a 40% effort for T/TT faculty is fully consistent with equating 30 section credits with a 100% effort.

It is the goal to increase the percent service workload of NTT faculty incrementally to 20%. With a target of an “80:0:20” workload distribution, NTT teaching faculty are expected to teach a 4-4 teaching load. Similarly, for NTT research faculty the target is a “0:80:20” workload distribution.

All NTT faculty members are encouraged to engage in the full range of service activities open to all faculty.

With the approval by the Chair, NTT teaching faculty may be released from a portion of the teaching load in recognition of the time required for preparation of the lab courses and for GTA training; up to the equivalent of one course per year.

NTT teaching faculty are encouraged to engage in activities to enhance their scholarship of teaching and may be released from a portion of the teaching load in recognition of the time required for such activities; up to the equivalent of one course per year. Academic activities to enhance the scholarship of teaching include educational materials developments and assessment materials development and productivity in such endeavors is evaluated on the basis of papers, presentations and proposals resulting from these activities.

The 80% research workload for an NTT faculty member constitutes earning sufficient income via grants and contracts to cover their direct costs.

The productivity of NTT faculty is evaluated in the same way as described for T/TT faculty.