Department of Biomedical Sciences (BMS) Workload Summary (adopted 5/18/2017; unadopted draft revisions sent to Provost 03/26/2021)

This document was constructed by the department chair with faculty input and in consultation with guidelines outlined by the Association of Chairs of Departments of Physiology of the American Physiological Society, and a document published by the national Education Advisory Board entitled “Faculty Workload Policies at Public Universities.”

As a preface, the nature of teaching in BMS, College of Veterinary Medicine presents unique challenges for workload calculations for the following reasons.

1. BMS faculty teach primarily in the first two years of the Professional Veterinary Medical curriculum. Accreditation requires competency in every aspect of the curriculum and faculty devote significant time to mentorship and professional advising.
2. Professional courses are often taught in a team format, requiring BMS faculty to serve as course directors as well as instructors.
3. The nature of the Professional Veterinary Curriculum is laboratory-intensive. Laboratory instruction of 120 students involves multiple laboratories with simultaneous participation of several instructors.
4. Graduate teaching includes instruction and mentorship of MS and PhD students, and postdoctoral fellows.

Credit for participation in teaching activities that are difficult to quantify is considered on a case-by-case basis. The following guidelines provide a framework for assigning workload for faculty. It is recognized that flexibility and collegiality among the faculty are imperative to address changing needs towards accomplishing the departmental mission in teaching, research and service.

Biomedical Sciences Workload guidelines

Within the limitations discussed above, the following policy serves to achieve a clear and equitable distribution of instructional workload among BMS faculty according to their effort allocation. Some models for calculating faculty workload attempt to quantify additional faculty time associated with large class size, courses requiring time-intensive instruction with substantial additional time in mentoring and professional advising, graduate level specialty courses, and supervising graduate students and postdoctoral fellows in laboratory research, by assigning varying amounts of additional teaching credit hours for these activities (e.g. see proposed guidelines of the Association of Chairs of Departments of Physiology of the American Physiological Society, and the national Education Advisory Board document entitled “Faculty Workload Policies at Public Universities.”). Given the varied and unique curriculum and strengths among our faculty, the following policy provides a guide, rather than a formula. Mission critical departmental instruction may require temporary deviations from the workload policy. In all cases, the department chair has the ultimate responsibility to establish expected workload for each individual faculty member. Flexibility will allow the chair, in consultation with each faculty member, to provide an individualized workload that maximizes the contribution of each faculty member to the University while meeting departmental needs. Under special circumstances (e.g., departure/extended leave of key faculty) such reassignments may be necessary at times out of synchrony with the annual review process.

Biomedical Sciences tenured and tenure track (T/TT) research and teaching workload:

Faculty within the College of Veterinary Medicine are exempt from the CRR requirements for minimum teaching loads. However, the Department of Biomedical Sciences workload policy is consistent with the traditional workload policies at MU adjusted for 12-month appointments where appropriate.
**Teaching**

T/TT faculty participate in the professional, graduate, and/or undergraduate curriculum.

**Graduate teaching**: Graduate teaching includes instruction and mentorship of MS and PhD students, as well as postdoctoral research fellows. T/TT faculty are expected to contribute to graduate teaching and/or serve as primary advisor to graduate students. Instruction in didactic graduate level courses is relatively straightforward. However, much of faculty contribution to graduate and postdoctoral education related to research is not appropriately reflected by standard metrics for research credit (8090 or 9090). Training graduate students and postdoctoral research fellows is a time intensive process. In addition to time spent training students in techniques involved in performing biomedical research experiments, faculty mentors are responsible for: one-on-one training of students/fellows in experimental design, data analysis and interpretation, critical reading and integration of relevant literature, research ethics, composition of scientific abstracts, construction of posters and symposium talks for scientific meetings, and seminars. In addition, faculty mentor students in writing manuscripts for publication in peer-reviewed journals and grant applications that are subject to highly competitive review on the national level. Furthermore, activities such as journal clubs, reading groups, and other instruction are critical for training, but not documented as official registered courses. These graduate training duties require a minimum of 3 hours/week per trainee, without regard to the academic calendar. Our research laboratories, and the faculty, graduate students and postdoctoral fellows of which they consist, are working on a full-time basis.

**Professional Teaching**: Almost all BMS faculty teach in the first two years of the Professional Veterinary Medical Curriculum. In addition to lectures and labs, significant additional faculty time is devoted to mentorship and professional advising, as Veterinary Medical students are required to meet American College of Veterinary Medicine Council on Education competency standards for accreditation. Class size is large (>120 students) yet there are no Graduate Teaching Assistants, thus faculty are responsible for review sessions, compiling, administering and grading exams, and providing feedback to the students. These factors contribute to increased instructor effort in professional courses as reflected in the greater tuition costs per credit hour. In addition, as professional courses are typically taught in a team format, faculty in BMS may also serve as course directors whose duties include attending lectures, assuring integration of content within the curriculum and coordinating faculty participation among multiple departments. Faculty serving as Course Director will be credited with the appropriate adjusted teaching load for their course per departmental policy.

**Undergraduate Teaching**: Departmental faculty contribute extensively to the College’s online undergraduate and graduate curriculum including delivering core courses required for undergraduate and graduate certificates and degrees.

Teaching expectations per 10% allocation will be 60 student contact hours per year. In calculating teaching effort, all forms of instruction will be included; such as off-campus, off-schedule, research supervision, clinical supervision, and independent study. In BMS, instructional time typically includes classroom lectures; research teaching and mentoring; laboratories for undergraduate students, graduate students, professional students and postdoctoral fellows; and research seminars and journal clubs with professional students and graduate students. Lectures in the professional curriculum are weighted based on class size, absence of teaching assistants and increased requirement for faculty interaction with students as described above.
Graduate students must be taught specific techniques in order to complete experiments, how to analyze the results of the experiments, and how to properly assemble their experimental results into an oral presentation or publication. All of these activities are a form of teaching that necessitates intensive input and expertise on the part of the advisor. Faculty with an extramurally funded lab may receive up to 10% teaching credit for mentoring graduate and postdoctoral trainees in research and up to 5% for undergraduate or professional student participating in a formal research instructional program (e.g. VRSP, MU Summer Undergraduate Research Program).

Research

For tenured faculty, effort allocation will be distributed based on extramural salary support. For example, a tenured faculty member with 25% salary on an extramural grant would have an allocation of 30% teaching, 55% research and 15% service. It is expected that a typical tenured faculty on 12-month appointment will recover 40% or more of their salary from extramural funding. Extramural salary support below 25% will result in effort reallocation as described below.

T/TT faculty in BMS are expected to successfully compete for federal extramural funding against Research I universities and centers across the country whose faculty have almost exclusive research commitments. This research workload ensures sufficient effort to maintain a vigorous research program comparable to successful full-time researchers in the same or comparable fields at the best of our benchmark Research I and Association of American Universities (AAU) universities.

BMS T/TT faculty have an expectation of carrying out productive research. Productive research requires consistent dissemination of research findings in peer-reviewed publications, books and/or invited symposia. T/TT faculty are expected to publish an average of one peer-reviewed article per year for each 25% effort allocation. It is expected that each tenured faculty member maintains at least 25% of their research effort on extramural grants. Although there may be no external salary support in the initial years, TT faculty will be expected to obtain 25% salary support from external funding prior to tenure. Although salary support from grants is not necessarily required for the research to be productive, submission of external grant proposals on a regular basis in a real attempt to garner research funding is expected. Special exceptions and circumstances to these guidelines are detailed below.

Special considerations and exceptions for reallocation of effort for research-intensive T/TT faculty.

1. Teaching workloads for new assistant professors:

In general, new tenure track assistant professors are exempted from teaching for their first year in the position and then are gradually moved towards a full teaching load. The goal of the transition is to assure high-quality instruction as the faculty member develops and delivers new lectures as well as to protect research time to allow the faculty member to achieve a research program of national stature. The pace of moving towards a full teaching load is at the discretion of the chair in consultation with the faculty member, but typically the transition has occurred by the time of mid-probationary review. This approach allows adequate time to hire and train research personnel, establish their laboratory, and submit research grants. It is expected that by the time the tenure-track faculty member is being considered for promotion and tenure that they will have a workload consistent with the department workload policy for at least 2 years before the promotion dossier is submitted. Tenure-track faculty will maintain a 12-month appointment during the probationary period.

2. Lapse in extramural funding:
Tenured faculty with a research allocation greater than 30% are expected to generate salary support from external funding commensurate with their additional research effort. Tenured faculty on a 12-month appointment with less than 25% salary recovery from extramural sources will be subject to a proportional increase in teaching allocation and/or reduction in salary. Adjustments in teaching allocations to offset research effort will be consistent with teaching effort guidelines above.

Guidelines for effort reallocation

1. External salary support will be calculated annually using a 3 yr. rolling avg or most recent year, whichever is greater.
2. Notification of decreases in research allocation and increased teaching allocations will occur during the annual review and take effect the following academic year.

If teaching FTE reallocation cannot offset research FTE reduction due to curriculum limitations, expertise, performance or faculty choice, salary reductions up to 25% may be implemented consistent with reallocation guidelines above and University policy (CRR 320.030). Tenure-track faculty will not incur a reallocation of effort or salary reduction during their probationary period, regardless of the amount of salary recovery they receive on grants.

Non-tenure track teaching workload (teaching faculty):

BMS has a number of full-time, non-tenure track (NTT) faculty with primarily teaching appointments. Within the CVM, the professional curriculum is 10 months, from August through May with a minimal (2 week) winter break. Lab preparation occurs in the interim 2 months and is labor-intensive including preparing specimens and multimedia support for anatomy and microanatomy labs. These faculty generally devote up to 90-100% effort to teaching in the professional curriculum. This corresponds to approximately 450-580 contact hours per year of classroom and/or laboratory teaching and additional 2-3 hours per contact hour in lab and practical exam preparation, student reviews, etc., thus requiring 12-month appointments for a majority of teaching faculty. Laboratory preparation for anatomy courses is particularly time-consuming, involving acquisition, euthanasia and embalming of large animals; specimen preparation, dissection and prosections; and recently multimedia educational development such as 3D printing, video and model creation. A wide range is required to encompass varying combinations of lectures and lab sections as these faculty are primarily responsible for the large number of laboratory sessions in the veterinary curriculum. Basic science laboratories form the foundation of the first-year Professional curriculum. Laboratory instruction of numerous students involves simultaneous participation of several instructors in large laboratory settings. Due to the necessity for multiple instructors per laboratory session, and multiple laboratories per class, workload of faculty involved in laboratory instruction cannot be represented by simple calculations as outlined for reporting using standard University formats. For example, our anatomy courses require 4 to 5 faculty for 3-hour sessions 3-4 times a week or 2-hour sessions 5 days per week. Each of these instructors participates and is responsible for the entire laboratory period. Thus, the number of contact hours in a regularly scheduled instructional period for professional education is used as a basis for defining effort in teaching. In additional to formal lectures and laboratories, these faculty serve as course directors, mentors and advisors for Professional Veterinary Medical students.

Service workloads for all full-time faculty:

On average, service is expected for BMS faculty, with the exception of NTT with 100% teaching or research allocation. The nature of how this service effort will be accomplished varies among faculty. Service may
include, but is not limited to, service on department, college and university committees; manuscript review; service on local, regional and national grant review panels; service on editorial boards; service on regional, national and international professional society committees; public research or teaching presentations; fundraising, etc. Leadership in service as an officer or in executive positions at the campus and national level is expected for tenured faculty, particularly for advancement to full professor. While University service diminishes outside the academic year, many federal review panels, manuscript reviews, conferences, conference organization, etc. occur throughout the year.

Faculty assuming service roles that are traditionally time-intensive, e.g. Director of Graduate Studies, Associate Chair, may have their service allocation increased and either teaching and/or research allocation decreased accordingly in consultation with the Chair.

Administration

Only those faculty members with a specific appointment to an administrative role are expected to include Administration in their workload.
Appendix: Not to be included in Provost package

Instructional time calculations (reported as student contact hours)

1. Lectures (standard 50-minute lecture period)
   a. Classes < 100 students = 1 hour
   b. 5000/6000 level classes > 100 without a TA = 1.5 hours

2. Laboratory instruction
   a. 1 hour for each 1 hour of laboratory instruction
   b. An additional one to four hours for laboratory course materials (sample collection and preparation, laboratory set-up time, and laboratory take-down time) may be credited for each laboratory session for the faculty members who have this responsibility depending on the nature of the course with Chair approval.
   c. Some laboratories, e.g. anatomy and microanatomy, require extensive preparation time outside of the academic year. These will be counted as actual hours with Chair approval.

3. Course director – calculated from departmental policy up to 25% of course credit (capped at 3% of total effort)

4. Research instruction in an extramurally funded lab
   a. Supervision of a graduate student or postdoctoral trainee
      i. Report as instructional contact hours per week x 46 weeks per trainee. Typically, 3 hours per week (capped at 10% total effort).
   b. Supervision of an undergraduate or professional student participating in a formal research instructional program (e.g. VRSP, MU Summer Undergraduate Research Program)
      i. Report as instructional contact hours per week x number of weeks (capped at 5% total effort).