FACULTY PERFORMANCE EXPECTATIONS AND GUIDELINES

Department of Large Animal Clinical Sciences

This document describes faculty performance expectations and measures for teaching, research, clinical practice, and academic/administrative service in the Department of Large Animal Clinical Sciences. These expectations have been developed as guidelines to assist the department in informing individual faculty, mentors, and members of the peer review committees of the nature and extent of activities that are expected to meet the standards of quality and performance in the department. Established as guidelines, it is anticipated that the content of this document will be modified over time in order to meet the continuously higher standards required expected by the university, framed within a national and international context.

Definitions

Instruction = didactic, laboratory, small group/seminar, and clinical/diagnostic or extension teaching
Research = research activities
Clinical practice = activities related to clinical/diagnostic responsibilities in the Veterinary Teaching Hospital (VTH), Training Center for Dairy Professionals (TCDP), Diagnostic Center for Population and Animal Health (DCPAH), or other clinical/diagnostic services pre-approved by the department.
Academic service = standing committees, task forces, outreach, professional association engagement
Extension = extension activities for faculty with an appointment with MSU Extension

Overview of the Faculty Annual Review Process

The university and department mandate that all faculty members must have an annual written performance review. The annual review evaluates faculty accomplishments in the context of the mission, performance standards and expectations of the department, college and university. The primary goals of the annual review process for the faculty member are to facilitate recognition of faculty accomplishments, to provide a forum for discussion of future goals and expectations in the context of the unit mission, and to identify areas for improvement and further development. The annual review also serves as a basis for merit salary adjustment recommendations. Additionally, this annual process provides input from faculty on their career progress, and in doing so, creates a mechanism for advocacy for the department; it is an opportunity to gather data that can be used to describe the department as a whole, documenting and promoting its successes and progress.

The primary roles and responsibilities of faculty members within the College of Veterinary Medicine are teaching, research and service. Workload guidelines and policies were established that describe workload expectations in the 3 mission areas (teaching, research, and service; see College of Veterinary Medicine Workload Assignment Guidelines). The department chairperson and individual faculty member establish the annual workload assignments. Workload assignments are based on the department’s mission and requirements and the expertise, training and goals of the individual faculty member. Workload and performance expectations are outlined at the time of initial appointment and, as necessary, are revised as part of the annual review process and reiterated in annual review letters.

The department chair is responsible for the annual performance evaluation of each faculty member. The assessment is based on the chairperson’s review of the Faculty Annual Activities and Accomplishments Report (for the calendar year) submitted by the faculty member and the evaluation provided to the chair by
the department peer review committee (Department Advisory Committee). Student evaluations of teaching (SIRS) and evaluations of clinical practice/diagnostic activities (by faculty peers, residents, technicians and the VTH, TCDP or DCPAH Director) will also be considered in this assessment.

All of this information is considered in light of performance expectations described in previous annual review letters (or, in the case of new faculty, described for the initial year by the letter of appointment), department performance criteria and standards, and the mission and goals of the department. Thus, annual evaluations should provide constructive recommendations regarding faculty performance within the framework of well described, individually-defined workload assignment. Similarly, standards and expectations for promotion and tenure are framed by the assigned duties and responsibilities of individual faculty. The assigned distribution of effort provides the framework in which it is incumbent on the faculty member to demonstrate that their performance in each area of effort meets or exceeds department and university level expectations.

**Expectations for Scholarship and Impact**

It is important to emphasize that, regardless of the assignment of percent effort in instruction, research, clinical/diagnostic practice or extension, faculty are expected to engage in activities that result in scholarly outputs. A faculty member is expected to develop a programmatic focus to their scholarship and also needs to provide evidence of independent scholarship (i.e. when reviewing the faculty member’s record of scholarship, there is a central theme that summarizes their contribution to scholarship). Nowadays, teamwork and collaboration are critical to success in research and other creative activities, and faculty members are encouraged to engage in collaborative, multidisciplinary and/or interdisciplinary scholarly activities. In these situations, clarification of the faculty member’s role in the scholarship must be provided.

As described in the MSU Faculty Handbook, “The essence of scholarship is the thoughtful discovery, transmission, and application of knowledge, including creative activities, that is based in the ideas and methods of recognized disciplines, professions, and interdisciplinary fields.” The department places high value on outputs of scholarship in the context of faculty performance assessment (both annual review and evaluation for reappointment, tenure or promotion). By definition, works of scholarship lead to advancement in the field and have the following characteristics –

1. **New understanding and insight:** The work develop and communicates new ideas, concepts or materials relevant to a professional, disciplinary, multidisciplinary or interdisciplinary field (or the synthesis of known ideas and concepts for the same purpose);
2. **External validity:** The work has undergone external validation with respect to originality, significance, accuracy, impact etc. Validation occurs via peer review, citation and/or when the work is adopted or used by others.
3. **Disseminated to the public:** The work is widely available to peers and broader audiences for use in teaching, research, clinical/diagnostic practice or extension/outreach engagement.

The assessment of the impact of scholarly activities and outputs is another dimension in the evaluation. Faculty members contribute a body of knowledge to society (via teaching, research, clinical practice, etc. activities), and the assessment of impact provides a measure of the quality of this contribution. **Examples of impact include:**

- Competitive extramural funding, especially funding from prominent federal agencies
- Citations of work by others (citation indices for peer-reviewed journal articles)
• Invitations for keynote presentations at national and international meetings
• Awards, honors and other forms of professional recognition
• Invitations to serve on review panels or to review research proposals or manuscripts
• Success of graduate students, residents and professional students (for which the faculty member is major advisor) in obtaining awards or competitive training grants
• Placement and career success of former students, including graduate, professional students and residents.
• Leadership positions with professional organizations

It is recognized that some measures of impact are less useful in the context of annual faculty evaluation and are better applied to evaluations that occur in the context of tenure and promotion applications and/or post-tenure review, e.g. citation indices for a paper(s) published in the year of an annual evaluation may not be very meaningful but are a useful measure of impact over a longer timeframe.

Included below are descriptions of the five major areas of effort assignment in the Department of Large Animal Clinical Sciences (Teaching [Instruction], Research, Clinical/Diagnostic Practice, Service, and Extension). For each area, a broad description of the area of effort is followed by examples of quantifiable criteria, relevant to the department, against which performance could be assessed. It should be noted that in each area there are numerous quantifiable criteria and based on their rank, experience and assignment, not all criteria would be expected to be relevant for individual faculty. Overall, a faculty member’s programmatic and scholarship emphasis should reflect their assignment.

Outreach/engagement is another important dimension of faculty work that is recognized and rewarded in the context of annual reviews as well as the reappointment and promotion processes. Michigan State University describes outreach as: Outreach/engagement occurs when a person’s research, teaching or service activity significantly engages that person’s scholarly or professional expertise with communities and/or organizations outside the academy with the direct goal of improving outcomes for those who live and work in them.” In most instances outreach activities are linked to the various forms of scholarly work conducted by the faculty member within primary areas of assignment (i.e. teaching, research, clinical practice, or service). Outreach activity, therefore, is evaluated as a component of work performed in teaching, clinical practice, research etc.

TEACHING

Direct instruction, academic advising, and curricular development/implementation are the three primary areas in which workload related to instruction will be assigned and evaluated. Instructional activities that target the broader community (e.g. veterinarians, animal producers/owners, care givers) also are evaluated; these outreach activities are expected of all faculty and are a critical component for faculty with an Extension appointment. The quality as well as the quantity of instructional responsibilities assigned must be assessed in the evaluation of faculty performance related to instruction. As described in the CVM Workload Assignment Guidelines document, credit for teaching activities includes consideration of time taken for various tasks. Specifically:

1. Didactic lectures (including online teaching) – this activity is based on actual hours of contact time required for delivery of lectures but takes into consideration time required for the lecture preparation or revision and for development and delivery of quizzes and examinations. For an academic year
(AY) appointment, MSU defines a full instructional load as 12 h lecture per week for two semesters. Assuming a 48 week teaching year, each full week of instruction is equivalent to ~2.1% annualized teaching load for an annual year appointment or ~2.3 h of preparation or grading etc for each hour of lecture.

2. Laboratory teaching. Tutorials, seminars and small group discussions – these activities are also based on actual contact hours required for discussion or interaction. While preparation time is taken into consideration, the preparation time factored into the annualized instructional load for laboratory or seminar is ~50% less (i.e. 12 hours of laboratory instruction is equivalent to ~1% annualized teaching load for an annual year appointment. When tutorials or laboratories are repeated, each repetition of the activity is given the same weighting.

3. Clerkship teaching (when combined with clinical practice activities) – clerkship teaching undertaken in the context of clinical/diagnostic service is normally assessed as 50% teaching (with the other 50% attributed to clinical practice). Assuming a 48 week/year work assignment (i.e. 4 weeks vacation), each week of clerkship teaching is equivalent to ~1.0% annualized teaching load (Example: the clerkship teaching load for a faculty member with 24 weeks/year assignment in the large animal hospital: 24 × 1.0% = 24%).

4. Clerkship teaching (no clinical practice activities) – this activity is equivalent to laboratory instruction; specifically, 1 week of all-day clerkship teaching is equivalent to a 2% annualized teaching load (1/48 weeks). In some circumstances faculty teach a number of days or half-days during a clerkship and the teaching load is calculated accordingly (e.g. 5 × ½ day instruction: 2.0% × 0.5 = 1.0% load).

5. Course moderator responsibilities – these activities are weighted based on the nature and credit value of the course and take into consideration additional preparation time, personnel and management activity that may be required in a higher (3 or 4) credit course. (For example, the time required to manage a 3 credit course may represent ~3 days or ~1.0% load.).

6. Student, house officers, graduate student and post-doctoral fellow advising – these activities are scaled based on the type of student and the role of the faculty member. For example, on average the annual input of a faculty member who is a committee member is normally significantly less than the primary advisor/committee chair and the annualized load expected for a PhD student or post-doctoral fellows would be expected to greater than an MS or summer research student.

Key dimensions in teaching and advising:

1. Instruction should be as effective as possible (Effectiveness of teaching).
   • Use of instructional tools that align with course material/course outcomes
   • Adoption of approaches to instruction that motivate students to learn such as: contributing to the development of analytical and critical thinking skills; creating enthusiasm for instruction that encourages student engagement; use of presentation or communication skills that motivate learning; stimulate independence in learning (as part of student development).

2. Faculty should contribute to the broader support of the teaching mission.
   Beyond the group and individual instructional activities, it is expected that faculty will make contributions towards advancement of teaching and learning in various ways; examples include:
   • Regular attendance at, and participation in student and resident teaching rounds
• Conducting and publishing research related to teaching and learning
• Demonstrating leadership in activities that influence instruction broadly, including the mentoring of junior faculty in their instructional roles.
• Demonstrating advanced skill in curricular evaluation, assessment in courses and reflective practices
• Leadership in curricular design, implementation or evaluation efforts
• Role on committees that support and administer the teaching mission
• Engagement in professional development programs (i.e. certificate or higher degree programs)
• Contributing to academic staff development within the department/college including training of tutors
• Mentoring of other faculty, contributing to their academic advancement and productivity in teaching and learning through participation in formal (e.g. faculty mentoring) or informal support programs

3. **Students should be effectively advised or mentored.**

   Individual instruction and advising is expected for undergraduate, DVM and graduate students or postdoctoral fellows engaged in research projects, as well as residents in training programs and graduate students engaged in Masters and PhD research programs and should be reflected in:
   • Effectiveness in mentorship including evidence of high quality theses completed in a timely manner, and quality of undergraduate research projects and graduate degree projects (e.g. the thesis results in one or more peer-reviewed papers accepted by journal of high standing in the particular field of research; project findings accepted for presentation externally)
   • Training should include, where possible, contribution to the support of student development through research grants, fellowships and awards
   • Role in organizing, participating in/supporting seminars or other student development efforts
   • Role on committees that support and administer the graduate advising mission
   • Employment of students without research mentorship is not considered as part of student training

**Quantifiable Teaching Performance Criteria:**

**Evidence of teaching effectiveness:**

• Timely completion of course reports, syllabi, and grades
• Efficient course management/effectiveness as a course moderator
• Reflection upon, and responsiveness to course outcomes, student and peer evaluation of course content, goals, delivery and assessment methods – **this may form part of a teaching portfolio which could include:**
  - SIRS (meeting or exceeding average scores) and reflections on scores or comments provided
  - Demonstrated improvements in the learning environment
  - Data to support improvements in course design and/or delivery
  - Data to support changes/improvements in tools for assessment
  - Objective outcomes of peer review or assessment of instruction (awards, letters, course critiques, letter from mentor/mentoring committee)
• Recognition and internal or external measures of success
  - Awards for teaching and learning

**Evidence of contributions to the broader support of the teaching mission**

• Participation in seminars or structured programs designed to foster teaching excellence
• Presentations, workshops or abstracts at national or international conferences
• Peer-reviewed publications on teaching
• Invited contributions to textbooks in instruction and/or curricular design/development
• Invited contributions to the development of learning assessment tools, curricular evaluation or other similar evidence of national or international reputation in instruction
• External funding reflecting activities in instruction and/or curricular design/development
• Submission and receipt of proposals
• Data to support role/contributions to curricular design/development/revision
• Evidence of contributions to mentoring of students, academic staff and faculty
• Outcomes of engagement in professional development activities (certificates, degrees, collaborative projects, application of findings to courses or curricular activities, mentoring activities)
• Awards and other forms of recognition of contributions to the broader teaching mission

Evidence of role in high quality advising of graduate students, post-professional and post-doctoral trainees

• Progression rates of graduate students and residents to degree completion
• Completion/board certification rates for residents (as a program/department rather than individual faculty member)
• Outcomes (e.g. abstracts, peer reviewed manuscripts, presentations, prizes, fellowships and other awards)
• Demonstrated capacity to attract higher degree students

**RESEARCH AND CREATIVE ACTIVITIES**

The apportionment of effort assigned for research and creative activities will vary between individuals and from year to year in order to optimize the department’s and the individual faculty member’s accomplishments in this area. Assigned research time must be clearly defined and protected so as not to be what is left over after clinical/diagnostic service, instruction, committee work, and other commitments are fulfilled. There is an expectation of quantifiable research outcomes at any level of research appointment and the level of the appointment will determine the scope of the expectations. The defining guidelines considered in meeting expectations within an assigned research load are as follows:

1. **Research should be funded**
   a. Internal funds, when available, should primarily be used for preliminary studies in support of external grant and contract applications. It is recognized that, in some instances, internal funding may be primary source of support for resident-level research projects (and such projects may not lead to external grant applications).
   b. For faculty with a ≥25% research appointment, submission of grant and contract proposals to external agencies, foundations, and industry partners is expected on an annual basis (at least one grant as a principle investigator/co-principal investigator) and/or evidence of a major contribution towards multi-year grants and continuous extramural funding. Faculty with <25% research appointment are expected to contribute to the submission of at least one grant per year on which they are listed as a co-investigator and/or engage in scholarship related to their primary area(s) of assignment, e.g. teaching or clinical practice. Collaborative and multi-disciplinary research efforts across departments, colleges and universities are encouraged.
   c. Revision and resubmission of grant and contract proposals is expected (where applicable).
d. Acquisition of external funds for salary support is not expected of faculty with a <50% research appointment.

e. Acquisition of external funds for partial salary support is expected of faculty with a ≥50% research appointment. Note: Faculty are expected to budget a proportion of their salary to all grant applications (when allowed by the funding body) equal to their anticipated percentage effort on that grant. If a faculty member wishes not to budget their salary in this manner (when such salary commitment is allowed by the funding body), this must be negotiated with the department chair on a grant-by-grant basis and any agreement documented.

f. Ultimate (assessed over a rolling 3-year period) success in external funding is expected for a continued research appointment of ≥25%. Re-assignment of load to other mission areas (i.e. teaching, clinical practice) or a reduction in appointment (AN to AY) are possible outcomes when research performance does not meet these expectations.

2. Research results should be published
a. Sustained dissemination of research findings in peer-reviewed publications is expected. As discussed below (item 2e), the number of papers published is but one of several measures to be considered in the assessment of research performance, with the quality of the journal (e.g. impact factor) and citation rates also taken into consideration. As a general guideline, however, each 25% appointment to research should result in approximately 1 peer-reviewed research publication per year (3 year average).

b. In considering peer reviewed research publications, abstracts, proceedings, book chapters, case reports, and lay publications do not count towards these target numbers.

c. Presentations and abstracts at scientific meetings and other publications such as case reports, case series and book chapters are scholarly activities that are encouraged, but do not substitute for peer-reviewed publication of research results (in many instances, these works of scholarship are linked to another area of assignment and are recognized in this context, e.g. clinical reports, retrospective studies or book chapters on clinical topics represent scholarship of clinical practice).

d. Whereas faculty with research appointments of <25% will not be expected to establish an independent research program, faculty will be expected to establish collaborative research efforts as demonstrated by authorship on peer-reviewed publications and grants submitted, and contributions to graduate training. At this level of appointment, faculty are expected to average at least 1 peer-reviewed paper as co-author every 2 years.

e. The quality of a peer-reviewed publication can, in part, be measured by journal impact factor within the field of specialization; other measures of publication quality should also be taken into consideration, e.g. citation indices.

f. Established ethical authorship guidelines must be adhered to (see MSU Guidelines on Authorship adopted 1/1/2013). Documentation of individual contribution for multi-authorship publications is expected [annual review process]).

3. Students should be trained in research (see item #3 under Key dimensions in teaching and advising)

4. Mentorship of early career faculty in research
a. For established research faculty, the mentoring of early career (Assistant Professors) faculty that contributes to their advancement and productivity is expected, e.g. critique of grant proposals, assistance in the development of new techniques, collaborations on grant proposals.

b. Collaborations between research-intensive faculty and clinical faculty also are valued and encouraged.
Quantifiable Research Performance Criteria:

Grant activity (*during the year of evaluation*)
- Number of grant and contract submissions or re-submissions
  - Internal and external applications
  - Role of faculty – PI, Co-PI vs. Co-I
- Number of grant and contract awards received
  - Internal and external awards
  - Role – PI, Co-PI vs. Co-I

Dissemination of research findings
- Number of peer-reviewed manuscripts published or accepted for publication *during the year of evaluation* (*manuscripts under review are also reported*)
  - Faculty role – senior author or co-author
  - Journal impact factor (relative to a comparable journal group, i.e. within field)
- Other peer-reviewed original works
- Meeting presentations
  - Research abstracts
  - Invited research presentations

Mentorship of graduate students, residents (as major advisor), postdoctoral fellows and early career faculty in research
- External funding for graduate student support
- Research abstracts and peer-reviewed manuscripts published by graduate students and postdoctoral trainees
- Awards and honors received by graduate advisees
- Timely completion of degree programs by graduate students
- Evidence of early career faculty mentoring activities, e.g. critiques of research grants, collaboration on grant proposals

Other measures of research impact
- Citation indices
- Awards and honors
- Current service on grant review panels and study sections
- Patent applications and awards

CLINICAL/DIAGNOSTIC PRACTICE

The provision of excellent clinical and diagnostic services is fundamental to the mission of the college. In LCS, faculty members provide clinical and diagnostic services through the Veterinary Teaching Hospital (VTH), the Training Center for Dairy Professionals (TCDP) and the Diagnostic Center for Population and Animal Health (DCPAH). These services are, in most instances, integrated with the training and education of professional (DVM) students and house officers/residents as well as outreach to animal owners/caregivers, referring veterinarians and other groups. Faculty members are expected to practice high-quality clinical medicine, provide effective supervision and clinical education of students and house officers, and show commitment to excellent client/referring veterinarian communication and service.

Specifically, faculty members are expected to:
Practice ethical and high-quality clinical medicine /diagnostic services
Maintain effective and timely communication with clients and referring veterinarians by telephone, e-mail and/or letters concerning medical and surgical management of their animals
Provide timely and accurate estimates of costs to clients (with regular updates as needed)
Complete all medical records in a timely manner
Comply with all VTH, TCDP or DCPAH policies and procedures
Foster teamwork and collaboration among members of the clinical/diagnostic service team in providing excellent patient/client service and maximizing opportunities for student and house officer education.
Consult with students, residents and other faculty members regarding patients / clinical problems
Consult with practicing veterinarians locally, regionally and nationally concerning state-of-the-art patient management / diagnostic services
Regularly engage in outreach to animal owners, veterinarians and other industry constituents
Perform all duties with competence, professionalism and accountability

Expectations for enhancement of the quality of service require that clinical/diagnostic service include activities that will advance knowledge and understanding, improve techniques and expertise applied to patient management and diagnostic testing, and incorporate and disseminate recent knowledge related to the field or discipline. Therefore, as a part of the effort allocated for clinical and diagnostic service, there is an expectation for scholarship through development of innovative practices, dissemination of new knowledge (e.g. case reports, retrospective/prospective case series), and/or engagement in clinical trials that advance understanding in the field.

Clinical/Diagnostic Service Performance Criteria:

Peer evaluation of clinical/diagnostic practice activities
- Ratings of faculty peers, technicians, residents/interns (data from the LCS Faculty Performance in Clinical Service survey instrument or a revision of the current instrument). This could include clients and referring veterinarians although currently there is no mechanism for systematically obtaining this information.

Medical records
- Timely completion of discharge statements and other reports; client and referring DVM communications
- Timely completion of medical records

Scholarship of clinical/diagnostic practice
- Peer-reviewed publications related to clinical/diagnostic practice (e.g. retrospective or prospective studies, clinical trials). Faculty with a clinical practice assignment (and a <20% research assignment) should publish at least one peer-review paper (as senior author or co-author) per year (1/year over a rolling 3-year period) related to clinical/diagnostic practice. Presentation of new findings, diagnostic or therapeutic techniques etc. at regional and national meetings is the preliminary step toward published dissemination of new clinical/diagnostic findings.
- Books and book chapters related to the faculty member’s clinical/diagnostic discipline

Contributions to collective performance and reputation of hospital/service unit
- Development and implementation of new diagnostic or therapeutic techniques
• Number of presentations and other forms of outreach to local/state stakeholder groups (all faculty with a clinical practice assignment should give at least one presentation per year at a local/state meeting).

Professional development & contributions to collective performance of hospital/service unit
• Invited presentations related to clinical practice at state, national and international meetings
• Attainment of additional board-certifications (if appropriate)
• Completion of other training programs/certificates that enhance the faculty member’s clinical skills and add a new dimension to the service

ACADEMIC/ADMINISTRATIVE SERVICE
Academic service should reflect activities that develop and advance institutional programs and professional organizations and by doing so, support the research, instructional and/or service missions of the department, college or university. Faculty mentoring is another very important activity under this category.

Generally, faculty participation on committees within the university is expected as part of one’s citizenship in the academic community. Within the department, there should be fair distribution of committee assignments among faculty so that these responsibilities are shared broadly over time. In some circumstances, faculty will receive credit for roles and responsibilities at the department, college, university, state, or national level that involve significant commitment of time across the academic year (special study groups, review panels, etc). Credit for the assignments should be decided in advance at the department level.

Academic/Administrative Service Performance Criteria:
Service within the academic community can include:
• Attendance and participation in departmental meetings, seminars, and workshops (expected)
• Membership on departmental, college or university governance committees (expected)
• Role in internal academic governance and/or in external professional organizations
• Participation in discussion of departmental plans and resolution of departmental issues
• Role on ad hoc committees/task force/ or panels
• Role as advisor to a student club or organization
• Service on internal or external review panels
• Service with national or international agencies (this activity should be pre-approved by the department chair when it constitutes a significant annual time commitment that may require a decrease in other assigned duties, e.g. President of a specialty college or professional association)
• Role as an editor of a scholarly or professional journal

For any of the above activities, evidence of the impact of services activities should include:
• Evidence of individual or committee accomplishments (extent of participation, policies, reports, organizational changes)
• Comment or evaluation by committee colleagues/Chairperson or the organization’s executive officers that addresses the scholarship, significance, and impact of the role and its outcomes
• At the associate or full professorial level, evidence of a leadership role in internal academic governance and/or in external professional organizations is expected
• Evidence of service awards, honors or other forms of professional recognition
EXTENSION

The core mission of cooperative extension is the transfer of scholarly knowledge from the academic environment to the agricultural stakeholders, allied professionals and industry members and the public. Thus, faculty members with an extension assignment utilize their professional expertise to disseminate information to improve the knowledge and skills of stakeholders (e.g. beef producers, dairy farmers etc.) and allied professionals, but also to increase public awareness of key issues related to their field of expertise. Extension faculty members should develop and maintain professional relationships with their stakeholders in order to identify and serve their needs.

Extension Performance Criteria:

Faculty members that have an extension assignment are expected to engage in the scholarship and service of extension, which might include:

- Peer-reviewed journal articles, e.g. applied research results/case studies performed on farms as part of extension programs or demonstrations; papers on new approaches to extension programming.
- Contributions to extension newsletters, websites, and stakeholder publications
- Development and application of tools/information in the public domain, for example:
  - Distance education programs
  - Software packages
  - Electronic educational materials including websites
  - End-user oriented materials including fact sheets
  - Off campus site visits
  - Patents

The organization and leadership of workshops or training sessions for stakeholders is another key dimension of extension, for example:

- Engaging in technology transfer, e.g. via presentations (including webinars)
- Organizing and disseminating information resources
- Applied demonstration research that directly impacts stakeholders
- Presentation of new concepts and findings at regional, state, and national meetings
- Demonstrating leadership in extension-related organizations, including MSU Extension
- Participation in youth organizations such as FFA and 4-H.
- Leadership or participation in submission of grant proposals with significant extension components
- Active participation in cross discipline extension programs

Evidence of impact is another essential element of extension activities; examples of this type of information include:

- Objective measurements of changes in the industry (e.g. reduction in disease prevalence, improvement in product quality/safety, etc)
- Measures of client satisfaction (e.g. results of survey instruments administered in association with extension programming)
- Invited presentations or invited documents
- Invited participation in state or regional stakeholder groups
- Adoption of scholarship by industry, clientele, or extension professionals
- Evidence of leadership roles in statewide or national initiatives
• Letters of recognition from commodity groups served

Annual Review of this Document
This department advisory committee (DAC) will review this document annually (in the fall) to ensure that its content remains up-to-date. The DAC will present any proposed changes for discussion at a faculty meeting.