

The Attached Departmental Guidelines for the
Department of

Mathematical & Computer Sciences

at

Metropolitan State University of Denver
are submitted for Approval for the Period

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Faculty Evaluation Guidelines

Department of Mathematical and Computer Sciences

Department of Mathematical and Com-
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Faculty Evaluation Guidelines

Department of Mathematical and Computer Sciences

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About Faculty Evaluation

At MSU Denver, we evaluate faculty in order to make informed summative decisions pertaining to reappointment, tenure, and promotion, **and** we evaluate faculty in order to provide constructive, accurate, and helpful feedback for purposes of improvement. The *Handbook* states "Performance review is critical to individual and institutional accountability and renewal. Only after reviewing the performance of faculty will the University be able to recognize outstanding contributions and be able to support, guide, and foster the development of individual talents and knowledge" (Section V. B.). In addition to enabling support and guidance from the University, the evaluation process can also provide the occasion for both meaningful peer-feedback and self-assessment/self-renewal.

Faculty members are evaluated in 3 areas of performance: Teaching, Scholarly Activities, and Service.

The departmental guidelines are split into three sections: For achieving tenure and promotion to Associate Professor, for Promotion to Professor, and for Post-tenure Review.

General Standards of Performance for Faculty

The faculty member must meet the contractual responsibilities defined in *Chapter V: "Annual Evaluation Policies and Procedures"*, *Section F: "General Standards of Performance of Faculty"* of the Trustees Handbook for Professional Personnel as a prerequisite to performance ratings satisfactory for tenure, promotion or post tenure review.

Basic Ratings Definitions

In establishing the standards for the criteria listed below, the Department of Mathematical and Computer Sciences stipulates that a faculty member's rating should be based on the overall contribution in each criterion. In accordance with the Handbook, the following ratings will be applied: Meets Standards and Needs Improvement.

Mission Statement

The mission of the Department of Mathematical and Computer Sciences is available on the Department website: <http://math.msudenver.edu/>

I. Evaluation Guidelines for Tenure & Promotion to Associate Professor

General Statement on Achieving Tenure

The Mathematics and Computer Science faculty will recommend tenure for those tenure track faculty who perform at a high level and show a willingness to become contributing members of the Department throughout their careers. The tenure track faculty need to demonstrate their performance and dedication in the areas of teaching, scholarly activity and service. The evaluation process looks at personal commitment and success of efforts made in each of these areas, and at the overall performance.

The Department of Mathematical and Computer Sciences recognizes an overall performance at the Meets Standards level as sufficient for tenure. Moreover, Meets Standards ratings in all three categories are sufficient for an overall Meets Standards rating.

Teaching

Teaching: Teaching is the act of creating and maintaining an environment which enhances the opportunities for student learning and discipline-related growth; it includes advising students to facilitate graduation and to transition to post baccalaureate careers or further educational opportunities.

Requirements in the Teaching Category for Achieving Tenure

There are four basic portfolio requirements for evaluation of Teaching for the Department of Mathematical and Computer Sciences.

- A. **Fundamental Instructional Responsibilities.** The tenure candidate's portfolio should provide evidence of a high quality teaching performance, drawing from the aspects (1)–(5) of teaching listed below. The sources of data would normally include the Narrative, annotated curriculum vitae, additional materials for review (in the 3rd and 6th years), Teaching Observations, Peer Observations and SRI's (see items B. –D. below), and previous review letters.
- (1) **Content Expertise.** To demonstrate knowledge and/or relevant experience:
- Effective teachers display knowledge of their subject matters in the relevant learning environment (classroom, on-line, hybrid, field work, etc.)
- (2) **Instructional Design.** To re-order and re-organize this knowledge / experience for student learning:
- Effective teachers design course objectives, syllabi, materials, activities, and experiences that are conducive to learning.
- (3) **Instructional Delivery.** To communicate and “translate” this knowledge / experience into a format accessible to students:
- Effective teachers communicate information clearly, create environments conducive to learning, and use an appropriate variety of teaching methods.
- (4) **Instructional Assessment.** To evaluate the mastery and other accomplishments of students:
- Effective teachers design assessment procedures appropriate to course objectives, ensure fairness in student evaluation and grading, and provide constructive feedback on student work.
- (5) **Advising In and Beyond the Classroom:** To provide guidance for students as they pursue undergraduate and post-baccalaureate education and/or employment:
- Effective advisors interact with students to provide career guidance and information, degree program guidance and information (e.g., advice on an appropriate schedule to facilitate graduation), and answers to questions relating to a discipline.
- B. **SRI's.** The new Student Ratings of Instruction (SRI) instrument and the “old” Instructional Assessment Summary Sheets as appropriate need to be included in the portfolio.

- C. Departmental Teaching Observations. The Department of Mathematical and Computer Sciences considers Teaching Observations by tenured departmental faculty to be a valuable tool in the tenure process. As with Faculty Evaluation in general, we carry out Teaching Observations in order to make informed decisions pertaining to reappointment and tenure, and in order to provide constructive, accurate, and helpful feedback for purposes of improvement.

Probationary faculty members are required to have Teaching Observations by tenured departmental faculty, ideally within their own program, during the first two years of their probationary period. There must be one observation during each of the first four regular semesters, and one Observation by the department chair during each of their first two years. Candidates may request additional Teaching Observations as desired. The written record of these Observations must go into Portfolio in the form of additional material(s). Probationary faculty members have the responsibility of inviting a tenured faculty member of their choice each semester for a Teaching Observation, and the Chair has the responsibility of ensuring that a Teaching Observation actually takes place. If Teaching Observations do not take place, then the candidate and chair should make appropriate plans for future Teaching Observations and they should comment appropriately in their portfolio and review letter, respectively.

Departmental Teaching Observers will write a description of what they have observed along with qualitative evaluative commentary. Pre and post meetings should be carried out before the report is written, and the observation should be at least 50 minutes long. As part of the Third Year Review, the Department Chair, in consultation with the Departmental RTP committee, may require additional departmental Teaching Observations in years 3-5.

- D. University Level Peer Observation.

At least one university level summative Peer Observation will be carried out and submitted with the sixth year Portfolio in accordance with university rules.

The Meets Standards Rating in Teaching

The Teaching rating will be judged as a holistic weighted average of the candidate's performance on requirements A-D described above. The following are indicators of a Meets Standards performance.

- Fundamental Instructional Responsibilities. The tenure candidate's portfolio should provide evidence of a high quality teaching performance in items (1)-(5) described above: content expertise, instructional design, instructional delivery, instructional assessment and advising. Examples of effective teaching for aspects (1)-(5) are given below.
- SRI's. At least 80% of section SRI median scores for the instructor's "Contribution to the course" should be 4 or higher, and student comments should be generally positive or neutral. A median score of 4 or higher indicates that at least half of their students view the faculty member as a good, very good, or excellent teacher. Summer courses will be included, but Independent Studies will not. If more than 20% of section median SRI's are below 4, then this must be satisfactorily addressed in the portfolio narrative. In such case, factors such as course difficulty, upper division versus lower division, student motivation (required course versus elective, general studies versus major), online versus on-campus courses, using a new teaching method, student biases, etc. will be used to evaluate the student ratings and evaluations, if provided by the faculty member.
- Overall satisfactory results from the departmental teaching observations, where the progression of observations over time is a consideration.
- A satisfactory evaluation of the university summative peer observation.

Examples of Meets Standards in Fundamental Instructional Responsibilities (1)-(5)

The Department of Mathematical and Computer Sciences recognizes that there will be substantial overlap in effective teaching methods among the following five categories, and the portfolio narrative may combine discussion in a holistic manner.

(1) Content Expertise.

- Course materials reflect the discipline's current knowledge and practices
- Develop a new course that contributes significantly to the department's overall goals and mission.
- Develop new or supplementary material for a course beyond textbook
- Restructure a course and revise official Department syllabi
- Share personal research expertise where appropriate
- Introduce topical course materials obtained or developed from attendance at professional meetings

(2) Instructional Design.

- Effective design of course objectives, syllabi, materials, activities
- Expectations for student learning and performance are clearly communicated to students
- Integrate appropriate technology into course design
- Teach a wide variety of courses

(3) Instructional Delivery.

- Use effective pedagogies in the class to meet needs of diverse learning styles
- Integrate technology into course delivery
- Use teaching methods that actively engage students in the learning process

(4) Instructional Assessment.

- Assessments are closely aligned with course student learning objectives
- Student materials must be evaluated and returned in a timely fashion
- Students are informed of their standing in the course in sufficient time to make decisions about their learning and academic choices (seek tutoring, select NC, etc.)
- Extensive grading of written work, rough drafts, computer programming projects, homework, and/or quizzes
- Ensure that students are aware of assessment methodology and process
- Frequently conduct sessions outside of class that enhance students' knowledge of their progress
- Develop multiple types of assessments to meet needs of diverse learning styles
- Assessments are current and updated appropriately

(5) Advising

- Advise students accurately in curriculum matters and degree programs
- Advise students on career options
- Provide supporting documentation or letters to assist students in obtaining employment or graduate school placement when appropriate
- Work with students in discipline-related activities, such as student organizations, conferences and competitions (e.g. Putnam and Modeling contests)
- Supervise an IDP, independent study or internship
- Keep an advising log to document activities via the Banner Tracking system or other appropriate methods
- Participate in Department and MSU Denver Advising activities (Majors Fair, MSU Denver Open House, etc.)
- Maintain contacts in the industry to enhance career advising
- Provide other advising information important to students regarding a discipline, department, college or the University

The Needs Improvement Rating in Teaching

The Teaching rating will be judged as a holistic weighted average of the candidate's performance on requirements A-D described above. The following are indicators of a Needs Improvement performance.

- The tenure candidate's portfolio does not provide sufficient evidence of a high quality teaching performance in items (1)-(5) described above: content expertise, instructional design, instructional delivery, instructional assessment and advising.
- SRI's. More than 20% of section SRI median scores for the instructor's "Contribution to the course" are below 4, with negative student comments, and this has not been satisfactorily addressed in the portfolio narrative. Factors such as course difficulty, upper division versus lower division, student motivation (required course versus elective, general studies versus major), online versus on-campus courses, using a new teaching method, student biases, etc. will be used to evaluate the student ratings and evaluations, if provided by the faculty member
- Departmental Teaching Observations are not satisfactory.
- The university summative peer observation is not satisfactory.

Scholarly Activity

Scholarly and creative activities are disciplinary or interdisciplinary expressions or interpretations that develop ideas, frame questions, create new forms of representation, solve problems, or explore enduring puzzles.

Purposes include, but are not limited to, the following: advancing knowledge or culture through original research or creative activities; interpreting knowledge within or across disciplines; synthesizing information across disciplines, across topics, or across time; aiding society or disciplines in addressing problems; or enhancing knowledge of student learning and effective teaching.

Typically, to be considered scholarship, findings should be disseminated to either peer review by disciplinary scholars or professional or governmental organizations; or critical reflection by a wider community, including corporations or non-profit organizations, for example.

The Meets Standards Rating in Scholarly Activity

The Department of Mathematical and Computer Sciences understands scholarship in the broadest sense of the word. We include in this category all of our activities as we think, learn, write, and speak about our discipline and its pedagogy. Our scholarship may have many audiences including our students (other than in the context of expected classroom teaching), the department, fellow scholars, mathematicians and computer scientists, and the public at large.

The Scholarly Activity rating will be given based on the definition given above. The Mathematics and Computer Science faculty recognize that a satisfactory level of Scholarly Activity can be accomplished in many ways.

An example of sufficient Scholarly Activity to obtain the Meets Standards rating would be a cumulative record during the probationary period¹ that includes: (a) publishing one peer-reviewed paper or obtaining a peer-reviewed grant, and (b) making at least three conference presentations.

Some other indicators of strong Scholarly Activity include but are not limited to the following:

1. Strong but unpublished scholarly activity, shared with members of the learned and professional communities
2. Strong grant proposals, submitted and peer-reviewed but not funded
3. A strong body of conference presentations or invited addresses to members of the learned and professional communities
4. Exceptional work supervising undergraduate research in the discipline that has been shared with members of the learned and professional communities
5. Software products, shared with members of the learned and professional communities
6. Publishing books of scholarly value in the discipline
7. A strong body of workshop or conference activities, resulting in products shared with members of the learned and professional communities

It is understood that the accomplishments would have discipline-specific scholarly value as defined above.

¹ The Department defines the probationary period broadly where scholarly activity is concerned. For example, if some research and writing on an article are done before the probationary period begins but the article is finished and submitted during the probationary period, then the article is considered as a contribution to scholarly activity during the probationary period.

The Needs Improvement Rating in Scholarly Activity

The tenure candidate's portfolio does not provide sufficient evidence of Scholarly Activity at a level consistent with the indicators discussed for the Meets Standards rating.

Service

Faculty engage in service when they participate in the shared governance and good functioning of the institution; service to the institution can be at the program, department, college, or university level. Beyond the institution, faculty engage in service when they use their disciplinary and/or professional expertise and talents to contribute to the betterment of their multiple environments, such as regional communities, professional and disciplinary associations, non-profit organizations, or government agencies.

For the Department of Mathematical and Computer Sciences, service evaluations will be based upon the time involved, the complexity and importance of the project or activity, the leadership provided, and the intensity of the efforts. Service Activities will be evaluated in light of the Official Departmental Policies.

Some examples of Service include but are not limited to the following:

- Committee participation & Committee leadership,
- Special Program or department service contributions,
- Unpaid public service to community and/or professional organizations while representing MSU Denver or using disciplinary expertise,
- Contributions to disciplinary associations
- Providing a service role with student organizations or activities

The Meets Standards Rating in Service

Tenure candidates should make substantive contributions in their service. A successful service record needs to provide convincing evidence that the candidate is capable of and interested in providing significant service after tenure.

Service can be generally fit into five categories: to the Department, College, University, Community and Profession. The service record for a tenure candidate in the Department of Mathematical and Computer Sciences must include work in the department and at least one other category. Moreover,

- Faculty in the Computer Science program are expected to participate in assessment and ABET accreditation activities in order to obtain the Meets Standards rating.
- Faculty in the Mathematics Education sub-discipline are expected to work with prospective teachers in the field in order to obtain the Meets Standards rating.

There are many ways to provide service, and the Mathematics and Computer Science faculty do not wish to be overly prescriptive on the types of service undertaken. In particular, there are no specific requirements on service outside the university.

In order to clarify how much service activity is expected of tenure candidates, we now offer an example of a sufficient record of Service to obtain the Meets Standards rating. A satisfactory cumulative record during the probationary period could be one that includes the following:

1. Active membership on two departmental committees with moderate activity during the first two years of the probationary period,
2. Active membership on two departmental committees with significant activity,
3. Chairing a departmental committee for at least one year with moderate activity, or equivalent leadership in other service activities, and
4. An active multiyear term (a) on a College committee, or (b) on the Faculty Senate with sub-committee service, or (c) providing equivalent service to the community or a professional organization.

The Mathematics and Computer Science faculty recognize that a satisfactory level of Service can be accomplished in many ways. The profile described above is only one example, which is given as a yardstick to measure against for probationary faculty (and evaluators), not as a definitive path that must be taken.

The terms “significant” and “moderate” are difficult to define precisely and any activity will need some interpretation in terms of its intensity, complexity and importance. Nevertheless, in order to illustrate meaning, here are two examples:

- Active membership on a typical hiring committee would generally be deemed a significant activity.
- Active membership on a course committee where the official syllabus and textbook are reviewed and changed appropriately would be deemed a moderate activity.

Probationary faculty should carefully annotate their CV's to clarify their service contribution in addition to discussing service appropriately in their portfolio narratives.

The Needs Improvement Rating in Service

The tenure candidate's portfolio does not provide sufficient evidence of Service at a level consistent with the Meets Standards rating.

II. Evaluation Guidelines for Promotion to Professor

General Statement on Promotion to Professor

The Mathematics and Computer Science faculty will recommend promotion to Professor for those faculty who perform at a high level in the areas of teaching, scholarly activity and service. The evaluation process looks at personal commitment and success of efforts made in each of these areas, and at the overall performance.

Teaching

Teaching is the act of creating and maintaining an environment which enhances the opportunities for student learning and discipline-related growth; it includes advising students to facilitate graduation and to transition to post baccalaureate careers or further educational opportunities.

Requirements in the Teaching Category for Promotion to Professor

There are three basic portfolio requirements for evaluation of Teaching for the Department of Mathematical and Computer Sciences.

- A. **Fundamental Instructional Responsibilities.** The promotion candidate's portfolio should provide evidence of a high quality teaching performance, drawing from the aspects (1)–(5) of teaching listed below. The sources of data would normally include the Narrative, annotated curriculum vitae, additional materials for review, Teaching Observations, Peer Observations and SRI's (see items B. & C. below), and previous review letters.

(1) Content Expertise. To demonstrate knowledge and/or relevant experience:

- Effective teachers display knowledge of their subject matters in the relevant learning environment (classroom, on-line, hybrid, field work, etc.)

(2) Instructional Design. To re-order and re-organize this knowledge / experience for student learning:

- Effective teachers design course objectives, syllabi, materials, activities, and experiences that are conducive to learning.

(3) Instructional Delivery. To communicate and “translate” this knowledge / experience into a format accessible to students:

- Effective teachers communicate information clearly, create environments conducive to learning, and use an appropriate variety of teaching methods.

(4) Instructional Assessment. To evaluate the mastery and other accomplishments of students:

- Effective teachers design assessment procedures appropriate to course objectives, ensure fairness in student evaluation and grading, and provide constructive feedback on student work.

(5) Advising In and Beyond the Classroom: To provide guidance for students as they pursue undergraduate and post-baccalaureate education and/or employment:

- Effective advisors interact with students to provide career guidance and information, degree program guidance and information (e.g., advice on an appropriate schedule to facilitate graduation), and answers to questions relating to a discipline.

- B. **SRI's.** The new Student Ratings of Instruction (SRI) instrument and the “old” Instructional Assessment Summary Sheets as appropriate need to be included in the portfolio.

- C. **University Level Peer Observation.**

At least one university level summative Peer Observation will be carried out and submitted with the Promotion Portfolio in accordance with university rules.

The Meets Standards Rating in Teaching

The Teaching rating will be judged as a holistic weighted average of the candidate's performance on requirements A-C described above. The following are indicators of a Meets Standards performance.

- Fundamental Instructional Responsibilities. The promotion candidate's portfolio should provide evidence of a high quality teaching performance in items (1)-(5) described above: content expertise, instructional design, instructional delivery, instructional assessment and advising. Examples of effective teaching for aspects (1)-(5) are given below.
- SRI's. From the time of tenure, at least 80% of section SRI median scores for the instructor's "Contribution to the course" should be 4 or higher, and student comments should be generally positive or neutral. A median score of 4 or higher indicates that at least half of their students view the faculty member as a good, very good, or excellent teacher. Summer courses will be included, but Independent Studies will not. If more than 20% of section median SRI's are below 4, then this must be satisfactorily addressed in the portfolio narrative. In such case, factors such as course difficulty, upper division versus lower division, student motivation (required course versus elective, general studies versus major), online versus on-campus courses, using a new teaching method, student biases, etc. will be used to evaluate the student ratings and evaluations, if provided by the faculty member.
- A satisfactory evaluation of the university summative peer observation.

Examples of Meets Standards in Fundamental Instructional Responsibilities (1)-(5)

The Department of Mathematical and Computer Sciences recognizes that there will be substantial overlap in effective teaching methods among the following five categories, and the portfolio narrative may combine discussion in a holistic manner.

(1) Content Expertise.

- Course materials reflect the discipline's current knowledge and practices
- Develop a new course that contributes significantly to the department's overall goals and mission.
- Develop new or supplementary material for a course beyond textbook
- Restructure a course and revise official Department syllabi
- Share personal research expertise where appropriate
- Introduce topical course materials obtained or developed from attendance at professional meetings

(2) Instructional Design.

- Effective design of course objectives, syllabi, materials, activities
- Expectations for student learning and performance are clearly communicated to students
- Integrate appropriate technology into course design
- Teach a wide variety of courses

(3) Instructional Delivery.

- Use effective pedagogies in the class to meet needs of diverse learning styles
- Integrate technology into course delivery

- Use teaching methods that actively engage students in the learning process

(4) Instructional Assessment.

- Assessments are closely aligned with course student learning objectives
- Student materials must be evaluated and returned in a timely fashion
- Students are informed of their standing in the course in sufficient time to make decisions about their learning and academic choices (seek tutoring, select NC, etc.)
- Extensive grading of written work, rough drafts, computer programming projects, homework, and/or quizzes
- Ensure that students are aware of assessment methodology and process
- Frequently conduct sessions outside of class that enhance students' knowledge of their progress
- Develop multiple types of assessments to meet needs of diverse learning styles
- Assessments are current and updated appropriately

(5) Advising

- Advise students accurately in curriculum matters and degree programs
- Advise students on career options
- Provide supporting documentation or letters to assist students in obtaining employment or graduate school placement when appropriate
- Work with students in discipline-related activities, such as student organizations, conferences and competitions (e.g. Putnam and Modeling contests)
- Supervise an IDP, independent study or internship
- Keep an advising log to document activities via the Banner Tracking system or other appropriate methods
- Participate in Department and MSU Denver Advising activities (Majors Fair, MSU Denver Open House, etc.)
- Maintain contacts in the industry to enhance career advising
- Provide other advising information important to students regarding a discipline, department, college or the University

The Needs Improvement Rating in Teaching

The Teaching rating will be judged as a holistic weighted average of the candidate's performance on requirements A-C described above. The following are indicators of a Needs Improvement performance.

3. Conference presentations or invited addresses to members of the learned and professional communities
4. Work supervising undergraduate research in the discipline that has been shared with members of the learned and professional communities
5. Software products, shared with members of the learned and professional communities
6. Writing books of scholarly value in the discipline
7. Workshop or conference activities, resulting in products shared with members of the learned and professional communities
8. Reviews of scholarly articles and textbooks
9. Presentations to mathematics or computer science clubs
10. Serving on panel discussions
11. Organizing special sessions at conferences

It is understood that the accomplishments would have discipline-specific scholarly value as defined above.

The Needs Improvement Rating in Scholarly Activity

The promotion candidate's portfolio does not provide sufficient evidence of Scholarly Activity at a level consistent with the indicators discussed for the Meets Standards rating.

Service

Faculty engage in service when they participate in the shared governance and good functioning of the institution; service to the institution can be at the program, department, college, or university level. Beyond the institution, faculty engage in service when they use their disciplinary and/or professional expertise and talents to contribute to the betterment of their multiple environments, such as regional communities, professional and disciplinary associations, non-profit organizations, or government agencies.

For the Department of Mathematical and Computer Sciences, service evaluations will be based upon the time involved, the complexity and importance of the project or activity, the leadership provided, and the intensity of the efforts. Service Activities will be evaluated in light of the Official Departmental Policies.

The Mathematics and Computer Science faculty recognize that a satisfactory level of Service can be accomplished in many ways.

Some examples of Service include but are not limited to the following:

- Committee participation & Committee leadership,
- Special Program or department service contributions,
- Unpaid public service to community and/or professional organizations while representing MSU Denver or using disciplinary expertise,
- Contributions to disciplinary associations
- Providing a service role with student organizations or activities

- The promotion candidate's portfolio does not provide sufficient evidence of a high quality teaching performance in items (1)-(5) described above: content expertise, instructional design, instructional delivery, instructional assessment and advising.
- SRI's. From the time of tenure, more than 20% of section SRI median scores for the instructor's "Contribution to the course" are below 4, with negative student comments, and this has not been satisfactorily addressed in the portfolio narrative. Factors such as course difficulty, upper division versus lower division, student motivation (required course versus elective, general studies versus major), online versus on-campus courses, using a new teaching method, student biases, etc. will be used to evaluate the student ratings and evaluations, if provided by the faculty member.
- The university summative peer observation is not satisfactory.

Scholarly Activity

Scholarly and creative activities are disciplinary or interdisciplinary expressions or interpretations that develop ideas, frame questions, create new forms of representation, solve problems, or explore enduring puzzles.

Purposes include, but are not limited to, the following: advancing knowledge or culture through original research or creative activities; interpreting knowledge within or across disciplines; synthesizing information across disciplines, across topics, or across time; aiding society or disciplines in addressing problems; or enhancing knowledge of student learning and effective teaching.

Typically, to be considered scholarship, findings should be disseminated to either peer review by disciplinary scholars or professional or governmental organizations; or critical reflection by a wider community, including corporations or non-profit organizations, for example.

The Meets Standards Rating in Scholarly Activity

The Department of Mathematical and Computer Sciences understands scholarship in the broadest sense of the word. We include in this category all of our activities as we think, learn, write, and speak about our discipline and its pedagogy. Our scholarship may have many audiences including our students (other than in the context of expected classroom teaching), the department, fellow scholars, mathematicians and computer scientists, and the public at large.

The Scholarly Activity rating will be given based on the definition given above. The Mathematics and Computer Science faculty recognize that a satisfactory level of Scholarly Activity can be accomplished in many ways.

Promotion candidates must make significant contributions in their Scholarly Activity.

Some indicators of quality Scholarly Activity include but are not limited to the following:

1. Scholarly articles shared with members of the learned and professional communities
2. Grant proposals, submitted and peer-reviewed

The Meets Standards Rating in Service

Promotion candidates must make significant contributions in their service. Service can be generally fit into five categories: to the Department, College, University, Community and Profession.

There are many ways to provide service, and the Mathematics and Computer Science faculty do not wish to be overly prescriptive on the types of service undertaken. In particular, there are no specific requirements on service outside the university.

Faculty should carefully annotate their CV's to clarify their service contribution in addition to discussing service appropriately in their portfolio narratives.

The Needs Improvement Rating in Service

The promotion candidate's portfolio does not provide sufficient evidence of Service at a level consistent with the Meets Standards rating.

III. Evaluation Guidelines for Post Tenure Review (PTR)

General Statement on Post Tenure Review

The university Handbook statement on Post Tenure Review:

Post Tenure Review affords faculty members and their supervisors with periodic opportunities to assess the faculty member's performance and shall be conducted for two primary reasons:

- i. To offer tangible recognition to those faculty members who have demonstrated high or improved performance, and
- ii. To assist tenured faculty members to improve performance if necessary by providing formative feedback

Teaching

Teaching is the act of creating and maintaining an environment which enhances the opportunities for student learning and discipline-related growth; it includes advising students to facilitate graduation and to transition to post baccalaureate careers or further educational opportunities.

Requirements in the Teaching Category for Post Tenure Review

There are four basic portfolio requirements for evaluation of Teaching for the Department of Mathematical and Computer Sciences.

- A. Fundamental Instructional Responsibilities. The PTR faculty member's portfolio should provide evidence of a high quality teaching performance, drawing from the aspects (1)–(5) of teaching listed below. The sources of data would normally include the Narrative, annotated curriculum vitae, SRI's, Letters of Review from the most recent comprehensive evaluation, e.g., tenure, promotion, or post tenure review, and Reassigned Time Reports and Evaluations.

(1) Content Expertise. To demonstrate knowledge and/or relevant experience:

- Effective teachers display knowledge of their subject matters in the relevant learning environment (classroom, on-line, hybrid, field work, etc.)

(2) Instructional Design. To re-order and re-organize this knowledge / experience for student learning:

- Effective teachers design course objectives, syllabi, materials, activities, and experiences that are conducive to learning.

(3) Instructional Delivery. To communicate and “translate” this knowledge / experience into a format accessible to students:

- Effective teachers communicate information clearly, create environments conducive to learning, and use an appropriate variety of teaching methods.

(4) Instructional Assessment. To evaluate the mastery and other accomplishments of students:

- Effective teachers design assessment procedures appropriate to course objectives, ensure fairness in student evaluation and grading, and provide constructive feedback on student work.

(5) Advising In and Beyond the Classroom: To provide guidance for students as they pursue undergraduate and post-baccalaureate education and/or employment:

- Effective advisors interact with students to provide career guidance and information, degree program guidance and information (e.g., advice on an appropriate schedule to facilitate graduation), and answers to questions relating to a discipline.

B. SRI's. The new Student Ratings of Instruction (SRI) instrument and the “old” Instructional Assessment Summary Sheets as appropriate need to be included in the portfolio.

The Meets Standards Rating in Teaching

The Teaching rating will be judged as a holistic weighted average of the faculty member's performance on requirements A & B described above. The following are indicators of a Meets Standards performance.

- Fundamental Instructional Responsibilities. The PTR faculty member's portfolio should provide evidence of a high quality teaching performance in items (1)-(5) described above: content expertise, instructional design, instructional delivery, instructional assessment and advising. Examples of effective teaching for aspects (1)-(5) are given below.
- SRI's. During the post-tenure review period, at least 80% of section SRI median scores for the instructor's “Contribution to the course” should be 4 or higher, and student comments should be generally positive or neutral. A median score of 4 or higher indicates that at least half of their students view the faculty member as a good, very good, or excellent teacher. Summer courses will be included, but Independent Studies will not. If more than 20% of section median SRI's are below 4, then this must be satisfactorily addressed in the portfolio narrative. In such case, factors such as course difficulty, upper division versus lower division, student motivation (required course versus elective, general studies versus major), online versus on-campus courses, using a new teaching method, student biases, etc. will be used to evaluate the student ratings and evaluations, if provided by the faculty member.

Examples of Meets Standards in Fundamental Instructional Responsibilities (1)-(5)

The Department of Mathematical and Computer Sciences recognizes that there will be substantial overlap in effective teaching methods among the following five categories, and the portfolio narrative may combine discussion in a holistic manner.

(1) Content Expertise.

- Course materials reflect the discipline's current knowledge and practices
- Develop a new course that contributes significantly to the department's overall goals and mission.
- Develop new or supplementary material for a course beyond textbook
- Restructure a course and revise official Department syllabi
- Share personal research expertise where appropriate
- Introduce topical course materials obtained or developed from attendance at professional meetings

(2) Instructional Design.

- Effective design of course objectives, syllabi, materials, activities
- Expectations for student learning and performance are clearly communicated to students
- Integrate appropriate technology into course design
- Teach a wide variety of courses

(3) Instructional Delivery.

- Use effective pedagogies in the class to meet needs of diverse learning styles
- Integrate technology into course delivery
- Use teaching methods that actively engage students in the learning process

(4) Instructional Assessment.

- Assessments are closely aligned with course student learning objectives
- Student materials must be evaluated and returned in a timely fashion
- Students are informed of their standing in the course in sufficient time to make decisions about their learning and academic choices (seek tutoring, select NC, etc.)
- Extensive grading of written work, rough drafts, computer programming projects, homework, and/or quizzes
- Ensure that students are aware of assessment methodology and process
- Frequently conduct sessions outside of class that enhance students' knowledge of their progress
- Develop multiple types of assessments to meet needs of diverse learning styles
- Assessments are current and updated appropriately

(5) Advising

- Advise students accurately in curriculum matters and degree programs
- Advise students on career options
- Provide supporting documentation or letters to assist students in obtaining employment or graduate school placement when appropriate
- Work with students in discipline-related activities, such as student organizations, conferences and competitions (e.g. Putnam and Modeling contests)
- Supervise an IDP, independent study or internship
- Keep an advising log to document activities via the Banner Tracking system or other appropriate methods
- Participate in Department and MSU Denver Advising activities (Majors Fair, MSU Denver Open House, etc.)
- Maintain contacts in the industry to enhance career advising
- Provide other advising information important to students regarding a discipline, department, college or the University

The Needs Improvement Rating in Teaching

The Teaching rating will be judged as a holistic weighted average of the faculty member's performance on requirements A & B described above. The following are indicators of a Needs Improvement performance.

- The PTR faculty member's portfolio does not provide sufficient evidence of a high quality teaching performance in items (1)-(5) described above: content expertise, instructional design, instructional delivery, instructional assessment and advising.
- SRI's. During the post-tenure review period, more than 20% of section SRI median scores for the instructor's "Contribution to the course" are below 4, with negative student comments, and this has not been satisfactorily addressed in the portfolio narrative. Factors such as course difficulty, upper division versus lower division, student motivation (required course versus elective, general studies versus major), online versus on-campus courses, using a new teaching method, student biases, etc. will be used to evaluate the student ratings and evaluations, if provided by the faculty member.

Scholarly Activity

Scholarly and creative activities are disciplinary or interdisciplinary expressions or interpretations that develop ideas, frame questions, create new forms of representation, solve problems, or explore enduring puzzles.

Purposes include, but are not limited to, the following: advancing knowledge or culture through original research or creative activities; interpreting knowledge within or across disciplines; synthesizing information across disciplines, across topics, or across time; aiding society or disciplines in addressing problems; or enhancing knowledge of student learning and effective teaching.

Typically, to be considered scholarship, findings should be disseminated to either peer review by disciplinary scholars or professional or governmental organizations; or critical reflection by a wider community, including corporations or non-profit organizations, for example.

The Meets Standards Rating in Scholarly Activity

The Department of Mathematical and Computer Sciences understands scholarship in the broadest sense of the word. We include in this category all of our activities as we think, learn, write, and speak about our discipline and its pedagogy. Our scholarship may have many audiences including our students (other than in the context of expected classroom teaching), the department, fellow scholars, mathematicians and computer scientists, and the public at large.

The Scholarly Activity rating will be given based on the definition given above. The Mathematics and Computer Science faculty recognize that a satisfactory level of Scholarly Activity can be accomplished in many ways.

Some indicators of quality Scholarly Activity include but are not limited to the following:

1. Scholarly articles shared with members of the learned and professional communities
2. Grant proposals, submitted and peer-reviewed
3. Conference presentations or invited addresses to members of the learned and professional communities
4. Work supervising undergraduate research in the discipline that has been shared with members of the learned and professional communities
5. Software products, shared with members of the learned and professional communities
6. Writing books of scholarly value in the discipline
7. Workshop or conference activities, resulting in products shared with members of the learned and professional communities
8. Reviews of scholarly articles and textbooks
9. Presentations to mathematics or computer science clubs
10. Serving on panel discussions
11. Organizing special sessions at conferences

It is understood that the accomplishments would have discipline-specific scholarly value as defined above.

The Needs Improvement Rating in Scholarly Activity

The PTR faculty member's portfolio does not provide sufficient evidence of Scholarly Activity at a level consistent with the indicators discussed for the Meets Standards rating.

Service

Faculty engage in service when they participate in the shared governance and good functioning of the institution; service to the institution can be at the program, department, college, or university level. Beyond the institution, faculty engage in service when they use their disciplinary and/or professional expertise and talents to contribute to the betterment of their multiple environments, such as regional communities, professional and disciplinary associations, non-profit organizations, or government agencies.

For the Department of Mathematical and Computer Sciences, service evaluations will be based upon the time involved, the complexity and importance of the project or activity, the leadership provided, and the intensity of the efforts. Service Activities will be evaluated in light of the Official Departmental Policies.

Some examples of Service include but are not limited to the following:

- Committee participation & Committee leadership,
- Special Program or department service contributions,
- Unpaid public service to community and/or professional organizations while representing MSU Denver or using disciplinary expertise,
- Contributions to disciplinary associations
- Providing a service role with student organizations or activities

The Meets Standards Rating in Service

Tenured faculty members should make substantive contributions in their service. Service can be generally fit into five categories: to the Department, College, University, Community and Profession.

There are many ways to provide service, and the Mathematics and Computer Science faculty do not wish to be overly prescriptive on the types of service undertaken. In particular, there are no specific requirements on service outside the university.

Faculty should carefully annotate their CV's to clarify their service contribution in addition to discussing service appropriately in their portfolio narratives.

The Needs Improvement Rating in Service

The PTR faculty member's portfolio does not provide sufficient evidence of Service at a level consistent with the Meets Standards rating.

IV. Evaluation & Re-appointment Guidelines for Category II Faculty

General Statement

Category II faculty serve as contingent faculty, appointed for defined terms. Category II faculty reappointments are determined based on a combination of department needs and faculty member qualifications and performance. Subject to need, the Mathematics and Computer Science Department will recommend for re-appointment those Category II faculty who perform at a high level in the area of teaching, and show a willingness to become contributing members of the Department. In those cases where a Category II faculty member has a reduced teaching-load agreement that specifies duties in scholarly activities or service, then the evaluation will also encompass work in those areas. The evaluation process looks at personal commitment and success of efforts made, and at the overall performance.

There are three different types of Category II appointments:

1. One year temporary appointments, where there is no intended extension of the appointment beyond one year,
2. One year ongoing appointments, where there is the intention of the appointment being extended beyond the current year
3. Multi-year ongoing appointments, where the appointment contract is for more than one year.

Criteria for evaluation only apply to those in ongoing positions 2. and 3.

Teaching

Teaching is the act of creating and maintaining an environment which enhances the opportunities for student learning and discipline-related growth; it may include advising students to facilitate graduation and to transition to post baccalaureate careers or further educational opportunities.

Requirements in the Teaching Category for Category II Re-appointment

There are four basic portfolio requirements for evaluation of Teaching for Category II faculty in the Department of Mathematical and Computer Sciences. Portfolios will be submitted in accordance with Handbook policy.

- C. **Fundamental Instructional Responsibilities.** The Category II faculty member's portfolio should provide evidence of high quality teaching performance, drawing from the aspects (1)–(4) of teaching listed below. The sources of data would normally include the Narrative, annotated curriculum vitae, SRI's, and Letters of Review from the most recent comprehensive evaluation.
- (1) **Content Expertise.** To demonstrate knowledge and/or relevant experience:
 - Effective teachers display knowledge of their subject matters in the relevant learning environment (classroom, on-line, hybrid, field work, etc.)
 - (2) **Instructional Design.** To re-order and re-organize this knowledge/experience for student learning:
 - Effective teachers design course objectives, section syllabi, materials, activities, and experiences that are conducive to learning.
 - (3) **Instructional Delivery.** To communicate and "translate" this knowledge/experience into a format accessible to students:
 - Effective teachers communicate information clearly, create environments conducive to learning, and use an appropriate variety of teaching methods.
 - (4) **Instructional Assessment.** To evaluate the mastery and other accomplishments of students:
 - Effective teachers design assessment procedures appropriate to course objectives, ensure fairness in student evaluation and grading, and provide constructive feedback on student work.
- D. **SRI's.** The new Student Ratings of Instruction (SRI) instrument and the "old" Instructional Assessment Summary Sheets as appropriate need to be included in the portfolio.

- E. Departmental Teaching Observations. The Department of Mathematical and Computer Sciences considers Teaching Observations by tenured departmental faculty to be a valuable tool in the evaluation of Category II faculty. As with Faculty Evaluation in general, we carry out Teaching Observations in order to make informed decisions pertaining to reappointment, and in order to provide constructive, accurate, and helpful feedback for purposes of improvement.

Category II faculty members who are on one-year ongoing appointments are required to have at least one Teaching Observation by a tenured departmental faculty, ideally within their own program, in each of the two semesters of their first year of appointment. Candidates may request additional Teaching Observations as desired, and further observations may also be required, at the discretion of the Chair. The written record of these Observations must go into Portfolio in the form of additional material(s). Category II faculty members have the responsibility of inviting a tenured faculty member of their choice for a Teaching Observation, and the Chair has the responsibility of ensuring that a Teaching Observation actually takes place.

Departmental Teaching Observers will write a qualitative evaluative commentary. The observation should be at least 50 minutes long. The Department Chair may require additional departmental Teaching Observations.

- F. University Level Peer Observation.

If a Category II faculty member is eligible, and being considered, for a multi-year appointment, then at least one university level Summative Peer Observation will be carried out and submitted with the re-appointment portfolio. All Summative Peer Observations of Category II faculty will be conducted by a trained Peer Observer, ideally from the same program.

The Meets Standards Rating in Teaching

The Teaching rating will be judged as a holistic weighted average of the faculty member's performance on requirements A & B described above. The following are indicators of a Meets Standards performance.

- Fundamental Instructional Responsibilities. The Category II faculty member's portfolio should provide evidence of a high quality teaching performance in items (1)-(4) described above: content expertise, instructional design, instructional delivery, and instructional assessment. Examples of effective teaching for aspects (1)-(4) are given below.
- SRI's. Category II faculty have a primary responsibility to be good teachers. This should be reflected in the SRI's. In particular, almost all SRI median scores for the instructor's "Contribution to the course" should be 4 or higher, indicating that half or more of their students view the faculty member as a good, very good, or excellent teacher; and student comments should be generally positive or neutral. Factors such as course difficulty, upper division versus lower division, student motivation (required course versus elective, general studies versus major), online versus on-campus courses, student biases, etc. will be used to evaluate the student ratings and evaluations, if provided by the faculty member. If there are some median SRI's of 3 or below, then these should be addressed in the portfolio narrative, which should also adequately address plans for continued improvement. Summer course SRI's will also be considered for the purposes of faculty evaluation.

Examples of Meets Standards in Fundamental Instructional Responsibilities (1)-(4)

The Department of Mathematical and Computer Sciences recognizes that there will be substantial overlap in effective teaching methods among the following four categories, and the portfolio narrative may combine discussion in a holistic manner.

- (6) Content Expertise.

- Course materials reflect the discipline's current knowledge and practices

- Develop a new course that contributes significantly to the department's overall goals and mission.
- Develop new or supplementary material for a course beyond textbook
- Restructure a course and revise official Department syllabi
- Share personal research expertise where appropriate
- Introduce topical course materials obtained or developed from attendance at professional meetings

(7) Instructional Design.

- Effective design of course objectives, syllabi, materials, activities
- Expectations for student learning and performance are clearly communicated to students
- Integrate appropriate technology into course design
- Teach a wide variety of courses

(8) Instructional Delivery.

- Use effective pedagogies in the class to meet needs of diverse learning styles
- Integrate technology into course delivery
- Use teaching methods that actively engage students in the learning process

(9) Instructional Assessment.

- Assessments are closely aligned with course student learning objectives
- Student materials must be evaluated and returned in a timely fashion
- Students are informed of their standing in the course in sufficient time to make decisions about their learning and academic choices (seek tutoring, select W, etc.)
- Extensive grading of written work, rough drafts, computer programming projects, homework, and/or quizzes
- Ensure that students are aware of assessment methodology and process
- Frequently conduct sessions outside of class that enhance students' knowledge of their progress
- Develop multiple types of assessments to meet needs of diverse learning styles
- Assessments are current and updated appropriately

The Needs Improvement Rating in Teaching

The Teaching rating will be judged as a holistic weighted average of the faculty member's performance on requirements A & B described above. The following are indicators of a Needs Improvement performance.

- The Category II faculty member's portfolio does not provide sufficient evidence of a high quality teaching performance in items (1)-(4) described above: content expertise, instructional design, instructional delivery, and instructional assessment.
- A significant number of median SRI's for faculty contribution to the course are 3 or below, with negative student comments. Moreover there is inadequate evidence of improvement and the portfolio narrative inadequately addresses plans for improvement. Factors such as course difficulty, upper division versus lower division, student motivation (required course versus elective, general studies versus major), online versus on-campus courses, student biases, etc. will be used to evaluate the student ratings and evaluations, if provided by the faculty member.

V. Evaluation Guidelines for Category III Faculty

General Statement

Category III faculty (also known as affiliate faculty) are appointed to teach on a per-credit-hour basis for specific classes, semester by semester. Category III faculty appointments are determined based on a combination of department needs and faculty member qualifications and performance in the area of teaching. The evaluation process looks at personal commitment and success of efforts made, and at the overall performance.

Requirements for Category III Re-appointment

Category III faculty in the Department of Mathematical and Computer Sciences should meet the following fundamental instructional responsibilities:

- (1) **Content Expertise.** They should display knowledge of their subject matters in the relevant learning environment (classroom, on-line, hybrid, field work, etc.)
- (2) **Instructional Design.** They should design course materials, activities, and experiences that are conducive to learning.
- (3) **Instructional Delivery.** They should communicate information clearly, create environments conducive to learning, and use an appropriate variety of teaching methods.
- (4) **Instructional Assessment.** They should design assessment procedures appropriate to course objectives, ensure fairness in student evaluation and grading, and provide constructive feedback on student work.

Category III faculty must also observe department policies regarding office hours, attend mandatory training workshops, and provide students with feedback in the form of regular homework, quizzes or other assignments.

Category III faculty evaluations will be based on:

- G. SRI (Student Ratings of Instruction). The evaluation will take into account both student comments and the pattern of numerical student ratings. Almost all median student scores for the instructor's "Contribution to the course" should be 4 or higher, and student comments should be generally positive or neutral. Factors such as course difficulty, upper division versus lower division, student motivation (required course versus elective, general studies versus major), online versus on-campus courses may be used to evaluate the student ratings and comments. Summer course SRI's will also be considered.
- H. Departmental Teaching Observations. Teaching Observations by tenured and tenure-track departmental faculty are a valuable tool for providing constructive, accurate, and helpful feedback for purposes of improvement and in the evaluation of Category III faculty. Category III faculty members are required to have at least one Teaching Observation by a tenured or tenure-track departmental faculty, within their own program, in their first semester of appointment. Additional observations, or observations in subsequent semesters, may be required at the discretion of the Chair and Associate Chair. Category III faculty may request additional Teaching Observations as desired. The Associate Chair has the responsibility of ensuring that a Teaching Observation actually takes place.

Departmental Teaching Observers will write a qualitative evaluative commentary. The observation should be at least 50 minutes long.