

## **Tenure and Promotion Criteria** Department of Mathematics and Computer Science

### ***Teaching and Advising***

The Department of Mathematics and Computer Science considers productive, enthusiastic teaching in mathematics or computer science to be the essential part of the careers of its faculty members. The department views excellence in classroom work as an on-going process, subject to frequent assessment and continuous change and improvement.

We strongly believe that one-on-one interaction with students in a wide variety of contexts is crucial to helping them develop as thinkers and problem solvers. We also believe that one-on-one interaction with advisees is crucial to helping them develop as engaged, productive citizens in a diverse and changing world. We expect faculty to provide students with frequent and careful feedback on their work and to provide advisees with regular guidance and feedback as they chart their path through their undergraduate experience. Consequently we expect significant time to be devoted to office hours, advising, and other venues that allow for this one-on-one interaction with students. Excellent faculty will find their own ways to interact and to cultivate meaningful, productive relationships with students and advisees. For example, we encourage our faculty members to become advisors for first-year students.

From time to time, members of the department may develop new courses or significantly revise existing courses. Although new curricular needs arise more frequently in computer science than in mathematics because of rapid changes in the field, both areas of study demand continual oversight. By staying current in our field we are aware of the ways new developments can be meaningfully incorporated into the curriculum. We make ongoing efforts to revise our courses and keep them up-to-date. We also recognize that this is especially important and challenging for our colleagues in computer science. In addition we recognize the risk that teaching new courses, working toward different course objectives, using experimental pedagogies, etc., may have on course evaluations; we value this work. Excellent faculty members bring insight into departmental discussions about our curriculum, are willing to work on appropriate new courses, and actively revise the courses they teach. Each faculty member is expected to contribute to the overall program by teaching a variety of courses, as dictated by the needs of the department. Our courses typically rotate among the faculty. We prefer our faculty to have a sense of ownership of the major rather than ownership of specific courses. All members also participate in our capstone inquiry programs.

The department endorses the mission of Augustana College—providing a liberal arts education. We value the development and teaching of courses that contribute to college-wide curricular goals including courses in the general education and honors programs.

Our faculty members are expected to continuously monitor their own teaching. We expect faculty to consider the impact of their pedagogical decisions. Excellent faculty experiment and adapt. We strongly encourage the adoption of formative assessment tools, that is, methods that assess student learning as it happens in the classroom. We expect faculty to consult and reference specific sources of guidance for their own teaching, such as short courses at national or regional meetings, their own reading and research, and participation in on-campus

workshops or off-campus teaching conferences. Excellent faculty reflect upon, document, and share their efforts in course design and classroom execution.

Excellence in classroom teaching is monitored from several sources. The department chair, in consultation with the faculty member, will choose at least one course to evaluate systematically and thoroughly, including consideration of the course design and syllabus, observation of the course on multiple occasions, evaluation of the tools used for summative evaluation, and discussion with the faculty member. Structured classroom observations by other tenured colleagues in the department are expected on a yearly basis. We expect to modify these procedures to stay current with effective practices. The department chair and other tenured members of the department will also evaluate course materials to make sure that each course is taught at an appropriate level and includes necessary content and objectives, as dictated by the program of study. We generally expect department members to share exams and assignments with each other, so that we all know what each is doing.

We share our advising load among tenured and tenure-track faculty. Excellent faculty advise an appropriate share of our majors and take their advising responsibilities seriously. Student reception as an advisor is monitored through the use of surveys administered to a faculty member's advisees. These surveys are administered to as many advisees as feasible (first-year and major) prior to or during the year of review. The faculty member is also expected to address their approach to advising as part of their portfolio submitted for review.

The department sees its members as educators who, by definition, are working to change our students for the better in their current and future lives. This change is fundamentally challenging and uncomfortable at times, and effective management of this discomfort is an important component of our work as educators, especially in fields about which many adults feel anxiety. Student receptions of their faculty are a component of classroom success, but these receptions are interpreted in the context of an education for change. Student feedback during the term and reflective responses by the faculty member to that feedback are frequently helpful. We expect candidates for tenure to use Augustana's student ratings of instruction on a regular basis and encourage tenured members of the department to do so to understand student reception. The department acknowledges that it can take several years for a faculty member to adjust to teaching at Augustana, so we value reflective narratives from candidates that demonstrate ongoing engagement with student feedback and appropriate adaptation. We expect newly hired faculty to share the results of their student ratings of instruction with the department chair and other tenured members of the department. We expect that student ratings of instruction do not show major problems that would undermine learning. We note that the faculty handbook indicates that use of Augustana's student ratings of instruction be used by all faculty on a regular basis and that a review of student evaluations for all classes taught since the granting of tenure be used by the chair when recommending a candidate for promotion.

There are several ways that our faculty can incorporate diversity, equity, and inclusion in their teaching. Faculty may include diverse perspectives, such as examples and problem sets that reflect the experiences and perspectives of underrepresented groups in math and computer science. Faculty may use inclusive language and ensure that language and examples used in class do not reinforce stereotypes or marginalize any group of students. The department

expects faculty to encourage participation and collaboration; this can foster an inclusive classroom environment by encouraging students to participate and actively listen to their classmates, as well as work together in groups. Faculty may also demonstrate a commitment to DEI by teaching in the FYI sequence, by teaching History of Mathematics, attending or hosting workshops on DEI in relation to mathematics and/or computer science, and by actively seeking out other appropriate professional development opportunities.

In summary, an excellent candidate for tenure and promotion to Associate Professor in the Department of Mathematics and Computer Science is an effective teacher who assesses this teaching work to improve and to adapt to changes in the needs of our students; an excellent candidate for tenure is also an engaged and reflective advisor for our majors and possibly for first-year students on campus. An excellent candidate for promotion to Full Professor maintains the qualities of a candidate for tenure with an emphasis on engaging in professional development to help the candidate and the department stay current in our fields. The department particularly values the work of the candidate for promotion to Full Professor to take on the design and implementation of courses outside their area of expertise, as dictated by the needs of the department. An excellent candidate for promotion to Full Professor uses the stability offered by tenure as a foundation for seeking deeper or more subtle learning outcomes for our students.

### ***Scholarship***

The Department of Mathematics and Computer Science recognizes that continued, active scholarship in mathematics or computer science is an important part of the careers of its faculty members. We expect our colleagues to be connected actively with the mathematics or computer science communities and their corresponding disciplines. Mathematics and computer science are alive, growing, and changing. There are many areas of scholarship that are of direct relevance to undergraduate education, even though the research required for the PhD may not be as directly relevant as it is in other disciplines at a small Liberal Arts college.

Commitment to the scholarship of the discipline and/or to the scholarship of teaching & learning may be evidenced in many ways. By the time a tenure decision is made, an excellent candidate shows on-going scholarship by sharing that scholarship with others. On campus, excellent candidates will have given presentations or organized activities at the department seminar and or symposium days. An excellent candidate for tenure has a clear pattern of regular attendance at professional meetings, both national and regional. The candidate's case will be strengthened if, in addition to attendance, the candidate has also given presentations, workshops, papers, or posters at such meetings.

An excellent candidate for tenure shows clear and unambiguous evidence of scholarly engagement. Evidence for such engagement typically includes a variety of activities, such as an article in a research journal, an article in a teaching journal, an article in conference proceedings, a book review, a grant proposal, a grant proposal review, a conference talk, a colloquium talk, a panel talk, leading a workshop, participating in a workshop, acting as a consultant, supervision of a student research project, a membership on a professional board, a book, a monograph, a textbook, a software project, the development of teaching materials, the incorporation of scholarship in course materials, the development of new courses reflecting recent scholarship and changes in the discipline, refereeing a paper, a publication

project using the internet, and similar evidence. An excellent candidate for tenure has published relevant work in a peer reviewed publication; this may include work done for the dissertation.

In summary, an excellent candidate for tenure and promotion to Associate Professor in the Department of Mathematics and Computer Science is a scholar who is engaged in the public disciplinary community, in the sense of Ernest Boyer's *Scholarship Reconsidered* (1990). The department values scholarship that impacts our students positively, so we view peer-reviewed publication of pedagogical writings as at least as valuable as other forms of peer-reviewed publication. An excellent candidate for promotion to Full Professor maintains the qualities of a candidate for tenure with an emphasis on engaging in professional development to help the candidate and the department stay current in our fields; an excellent candidate for promotion to Full Professor uses the stability offered by tenure as a foundation to engage projects with longer schedules or more uncertainty in outcomes. The MAA (Mathematical Association of America) is the main math organization focusing on the teaching of college math, the AMS (American Mathematical Society) is the main math organization for mathematical research and SIAM (Society for Industrial and Applied Mathematics) is the main organization for applied mathematics. In computer science the main organizations are ACM (Association for Computing Machinery) and IEEE (Institute of Electrical and Electronics Engineers).

It is particularly difficult to quantify a candidate's contributions in the area of scholarly activity, but an average of one scholarly activity per year would be considered sufficient with two or more considered excellent. These activities may have a single focus or may arise to meet the needs of the school, department and its students. Evidence of a reputation in the Math/CS field might include being requested for presentations, minicourses, reviews or service by one of the organizations listed above. In part because of the exigencies of our fields, the department does not require peer-reviewed publication between tenure and promotion to Full Professor, though we do still expect candidates to be engaged in the public disciplinary community. Work that is done with students and published in a peer reviewed venue is the ideal. However the department also values work that students can fully participate in and contribute to, but may not be publication level research.

### **Service**

The Department of Mathematics and Computer Science recognizes that service to the department and the college is necessary for the department and college to function well. All faculty members are expected to be good citizens and contribute to the mission of the department and the college.

We expect all our faculty members to participate in departmental governance. Thoughtful and engaged participation at meetings is necessary for a smoothly functioning department. Since some activities are only appropriate for tenured members of the department (such as evaluating tenure-track candidates), non-tenured faculty do not have quite as large a service commitment within the department as tenured members. Excellent faculty do their share of this work willingly and well.

We work to create an intellectual climate in mathematics and computer science outside the classroom. We expect faculty members to participate in departmental seminars, reading

groups, and from time-to-time to present results of their own work. Although attendance at each event is not required, excellent faculty make a priority of building community in our department by their presence and leadership.

We recognize that opportunities for college-wide campus service may take time to develop, and election or appointment to committees is not something a faculty member can control. When serving on a committee, we expect responsible service. All faculty have opportunities to help with admissions. We expect our faculty members to support the admissions effort by interviewing prospective students and participating in visit days when possible as needs arise.

Augustana College provides many activities for faculty members to participate in the wider college community; for example, a faculty member may become an advisor for a student organization, serve as a mentor to an athletic team, etc. Other opportunities include attendance at faculty forums, meetings, presentations, lectures, retreats, workshops, and the like, and music, sports, and theater, to name just a few. An excellent faculty member becomes, through judicious choice, an active member of the college community by attendance at some events and involvement in others and possibly leadership in still others.

In summary, an excellent candidate for tenure and promotion to Associate Professor in the Department of Mathematics and Computer Science is an engaged member of the department and campus community who uses their strengths to further the objectives of these communities. An excellent candidate for promotion to Full Professor maintains the qualities of a candidate for tenure with an emphasis on using their strengths to further the objectives of these communities as described by the faculty handbook (4.7.3). An excellent candidate for promotion to Full Professor uses the stability offered by tenure to accept larger and more complex responsibilities on campus; these responsibilities may include leadership in faculty governance, but we value a consistent record of thoughtful and needed, but less visible contributions as well.

### ***Conclusion***

The department feels that, when hiring a tenure-track faculty member at Augustana, we seek colleagues who will be excellent. We see it as the responsibility of the candidate and the appropriate members of the department to make the case that the candidate is an excellent colleague, either by demonstrating excellence in the categories above or by making a more holistic argument that the candidate is excellent overall while not quite meeting excellence in one of these categories. As a result, this document does not contain an explicit statement of minimum requirements for tenure or promotion.

Taking the previous sections together, an excellent candidate for tenure and promotion to Associate Professor is an effective teacher, an engaged advisor, an engaged scholar, and an engaged member of the campus community. An excellent candidate for promotion to Full Professor maintains the qualities of a candidate for tenure and uses the stability afforded by tenure to deepen these habits and enact longer-term projects.