

DEPARTMENT OF PHYSICS
CRITERIA FOR TENURE
(Revised 11/20/18)

OVERVIEW

Candidates for promotion and tenure are evaluated based on their research/scholarship, teaching, and service activities.

- Candidates for tenure must demonstrate sustained excellence in research through a quality, independent, productive research program, resulting in high quality publications in peer reviewed journals and conference presentations. Candidates must have a record of success in securing funding through extramural grants, contracts or other support that enables a thriving research program. Candidates are expected to be engaged in the graduate program by supervising doctoral students in their research and dissertation studies.
- Excellence in teaching undergraduate and graduate courses is required.
- Candidates are expected to actively participate in departmental service and governance. While assignments are generally reduced prior to tenure, candidates are expected to provide quality service.

RESEARCH AND SCHOLARSHIP

Candidates for tenure must demonstrate excellence in research, having established a quality, independent, productive research program.

Ultimately, it is the candidate's responsibility to provide evidence of the quality of scholarship. Quality indicators of a candidate's research include:

- Publications in high quality peer reviewed journals,
- Publications in peer reviewed journals with high impact factors within their field,
- Invited papers or book chapters in high quality publications,
- Citations to published articles,
- Research indices (e.g., h-index)
- Intellectual property disclosures and patents,
- Presentations and invited talks in departmental colloquium, workshops and conferences.

Demonstrating excellence in research involves a balance of the above quality indicators and a sufficient quantity of results to have established a sustainable research program. The

department allows faculty discretion in defining this balance between quality and quantity for their particular research area by setting a minimum threshold of “impact-points.” This is the sum of journal impact factors for their peer-reviewed journal publications during their tenure-track period while at UNT. The chart below specifies the thresholds for various research areas. The thresholds are based on the median journal impact factors for the research areas, as reported in the (2017) Journal Citation Reports by Clarivate Analytics, for journals within the specified research areas. (The thresholds are equivalent to eight publications in journals with median impact factor in the research area.)

Journal impact factors evolve over time. Therefore, periodic reviews will be conducted to determine whether the impact-point thresholds should be adjusted. Generally, journal impact factors do not change rapidly, so tenure track faculty will be evaluated based upon the impact-points threshold in place at the time of hiring at UNT. Research programs of some faculty may cross several areas. At the time of hire, faculty will consult with the Department Chair to determine appropriate research area(s) from which to derive a suitable impact-point threshold (e.g., a weighted average of impact-point thresholds derived from multiple areas in which the faculty member conducts research). Note that publications are evaluated the same whether they are published in digital or print formats and whether they are made accessible online to the public at no cost or are accessible only through individual or institutional purchase.

Achieving the impact-point threshold should not be construed as indicating that tenure will be awarded. The threshold is a minimum standard necessary to be considered. The departmental EC/PAC will weigh other indications of quality and impact of the faculty member’s research (e.g., h-index relative to the research field and time in career, speaker invitations, awards, etc.) along with the other research, teaching, and service criteria discussed below. Likewise, evaluations by external reviewers are a critical component in judging the impact of a candidate’s research.

Establishing an independent research program requires a record of success in securing extramural funding. Extramural funding includes grants and contracts from government, industry, or private sources; in-kind awards for access to computational, observational or instrumental resources; instrumentation grants, and travel grants. Extramural funding should directly benefit a candidate’s research program – for example, providing salary support for research assistants, funding post-doctoral positions, and supporting travel to professional conferences – leading to the discovery and dissemination of original research results.

Sustaining a vibrant research program and contributing to the research climate of the department requires active participation in the graduate program. Candidates are expected to be engaged in the graduate program by supervising doctoral students in their research and dissertation studies, serving on graduate student committees, and teaching graduate courses (as available).

TEACHING

Excellence in teaching in undergraduate and graduate courses is an expectation for granting tenure. Teaching quality is assessed through student evaluations, peer observations/evaluations, course content, instructional innovation and teaching awards.

While there are limitations in evaluating teaching effectiveness through student evaluations, they are useful in gauging the level of satisfaction with an instructor and can guide improvements in classroom instruction. In particular, faculty should take student feedback seriously and track areas of improvement made in response to student comments and evaluations.

Classroom observation and evaluation provides valuable information in assessing teaching effectiveness. Tenure track faculty will be observed periodically in the classroom to help them develop as effective teachers. Both the evaluations and a faculty member's responses to evaluation feedback will inform the teaching assessment.

Course content (original presentations, demonstrations, student projects), course redesigns, and examples of student work can be used to demonstrate quality instruction.

Teaching awards are a strong signal of quality teaching. Similarly, origination and participation in instructional grants demonstrates a commitment to the instructional mission of the department and university. Other evidence of teaching excellence includes developing new courses, pedagogical experiments and publications, teaching interdisciplinary courses, and the development of a formal teaching portfolio .

SERVICE

Candidates are expected to actively participate in departmental governance. Committee assignments are generally reduced for tenure-track faculty. However, it is expected that candidates will provide quality service on one departmental committee annually or through other assigned duties, such as student advising, supervision of teaching assistants and course/lab coordinator. Candidates may provide other forms of service to the college, university and profession that contribute to the operation and reputation of the department.

PARTICIPATION IN THE COMMUNITY OF SCHOLARS

It is important that all faculty demonstrate an understanding of the responsibilities of working as member of the community of scholars and act accordingly. Teaching, research and service duties should be performed conscientiously and with integrity. All faculty should interact with colleagues, staff and students with civility and respect.

Table 1. Impact-point thresholds for tenure, by research area.

Research Sub-discipline	Impact-point Threshold
Condensed Matter Physics	17
Mathematical Physics	10
Atomic, Molecular & Chemical Physics	17
Fluids & Plasma Physics	15
Particles & Fields Physics	18
Nuclear Physics	15
Applied Physics	14
Multidisciplinary Physics	13
Biophysics	19
Multidisciplinary Materials Science	16
Nanoscience & Nanotechnology	23
Astronomy& Astrophysics	17
Materials Science, Characterization & Testing	11
Education, Scientific Disciplines	12