

# Department of Psychology Procedures for Promotion to Associate Professor with Tenure

**Approval Date:** April 27, 2022

**Vote of tenure-track faculty:** 27 approve, 0 disapprove, 0 abstain

## Overarching principles (not part of criteria)

- Evaluative criteria should be informed by empirical data and or by published consensus recommendations and best practices in as much as possible
- Procedures should reflect the core values of the department and university.
- Evaluation should center on aspects of the work products that are under the control of the candidate in as much as possible. Avoid reputation-based metrics that are (a) out of the control of the candidate and (b) prone to known sources of bias
- Evaluation process should better accommodate and capture modern approaches to science (e.g., team science, use of secondary data). Multi-authored publication is the norm, and there is a need to better capture authorship roles to document contributions.
- Procedures and criteria should accommodate the diversity of approaches to scholarship and research within psychology and acknowledge that people's approach to science may be very different from one another.
- Procedures and criteria should recognize value and difficulty doing work with hard-to-reach populations, community engaged work, and/or approaches to open science
- Procedures should recognize the multitude of research products that people produce as part of their research program (creation of open datasets, creation of openly available research tools and software, etc)
- Pathway to full that could entail greater emphasis on instruction and service as reflected in the departmental workload policy.

## 1 Overview

This document provides guidance for faculty seeking promotion to Associate Professor with Tenure, as well as the Department, College, and University committees who are responsible for evaluating candidates for promotion, and external letter writers. The criteria included herein should be viewed as part of a holistic evaluation of the candidate and *should not be viewed as a checklist for promotion*. Candidates are evaluated on the *substance* of their contributions to research, teaching, and service as opposed to reliance on summary metrics. In keeping with the Land-Grant mission of the University of Maryland, the Department of Psychology values

- High quality research that maximizes *potential* impact for advancing science and/or addressing societal problems of local, national, or global significance,
- High quality instruction and student mentoring that is both broadly inclusive and maximally accessible, and

- Dedicated service to the department, university, and profession, and/or engagement with the broader local, state, and global communities.

In order to achieve tenure, faculty must show evidence of high quality research/discovery, evidence of commitment to delivering high quality teaching, and active engagement in service. However, the department recognizes the myriad roles necessary to fulfill the department's mission and further recognizes that different faculty may contribute to the department's mission in different ways based on their individual strengths and personal preferences. It is within this context that the department's requirements for tenure and promotion envision multiple paths for demonstrating strength in each of these areas. To aid in assessing the substance of one's work, candidates are expected to include a statement of research philosophy and a detailed annotation of research products.

## 1.1 Statement of Research Approach

The research statement describes one's values and approach to science, and serves to contextualize the many decisions one may make in their approach [3]. This may include the candidate's understanding of what makes good science and how their science might impact society. Examples of issues that the statement may address include one's orientation toward theory and empirical science, approach to authorship assignment, involvement of diverse populations, engagement with the community, the use of open science methodologies/approaches to reproducibility, ethical considerations related to publication decisions, and other issues related to the department's core values or the candidate's values. This statement should be included as a section of the candidate's personal statement.

## 1.2 Annotation of Research Products

In order to better document research and scholarship, the department has adopted a standardized annotation format for research products. The annotation process is intended to provide additional information that will enable evaluators to better assess the substance of the research and overall contribution of the candidate to individual research products. The annotated CV enables candidates to more fully document authorship roles; the scope of individual research products; efforts to ensure reproducibility and transparency (open science); the contribution of the research product to science or society; contribution to diversity, equity, and inclusion; and other considerations that provide context for understanding the specific work product as it relates to review criteria. A template for the annotation format is provided in Table 1. Given the diversity of research within psychological science, some faculty may choose to provide additional descriptive labels in their own annotations and/or indicate categories as N/A for categories that are "not applicable" for a given piece of scholarship.

The department of Psychology adopted the annotated CV format starting in the Spring of 2022. Faculty are not required to annotate publications prior to this date, but may choose to do so.

# 2 Evaluation Criteria

## 2.1 Research/Discovery

The Department of Psychology recognizes the diversity in research traditions, methodology, and publication practices across both sub-disciplines of psychology and across individuals and the growing prevalence of team science, use of open science approaches, and shifting norms regarding methodological rigor and reproducibility. This diversity in approach and practice highlights the importance of understanding and documenting the roles that individuals may play within larger teams of researchers and the candidate's programs of research. Assessments of research for promotion therefore requires careful evaluation of the *substance* of the research program and the candidate's overall contribution as opposed to reliance on summary metrics.

Candidates' body of work should be evaluated on multiple criteria using a holistic approach. These criteria include: (a) intellectual independence, (b) research productivity, (c) quality and impact of research, and (d) pursuit of external funding. These criteria are evaluated within the context of the candidate's program and approach to science and weighing the substance of the published work. To aid in the evaluation of the candidates' body of work, research should be annotated to provide

Template for annotating research products.

**Article Type:** Review;theoretical;empirical;quantitative;commentary.

**Data:** Original;archival;previously published;etc

**Characteristics of Sample and Studies:** Provide details regarding sample size and number of studies to contextualize the scope of published number of work, if applicable. Specifics will depend on particular research protocol and type of paper

**Data type:** Describe properties of the data useful for contextualizing research (e.g., Behavioral, fMRI, genetic, longitudinal, internet, unique populations, simulation, internet laboratory/clinical/simulation/ and (or) unique sample characteristics

**Reproducibility:** describe efforts to enhance reproducibility, such as inclusion of replications, open data, open code, etc.

**Authorship role:** Provide details of specific role played on the published work (e.g., CRediT, see <https://casrai.org/credit/> for example authorship role designations)

**Contribution of work or other comments:** What unique contribution did the work make to science? What features of the article are you most proud of? How does this work related to your research philosophy or approach? Were there any unique challenges to completing the work? What novel methods or non-publication products developed as part of the work? How did the pandemic impact the creation of this work (e.g., delays in data collection, or other barriers that may have affected this scholarship)

Table 1: **Annotated CV format [see 3]. Further detail and justification for categories is provided on <https://osf.io/gp5qt>.**

additional information and context for understanding the substance and scope of the published record and authorship roles.

### 2.1.1 Intellectual Independence

Candidates for promotion to Associate Professor are expected to establish a record of research that clearly demonstrates research independence. There are multiple ways in which independence can be demonstrated, some of which are listed below. It is recognized that new assistant professors may continue to publish with their graduate and post-doctoral mentors. In such cases, the candidates should make clear their contribution to those papers in their annotations of the articles. Candidates should strive to demonstrate independence in more than one way. Potential avenues for establishing independence could include any of the following (candidates are *not* expected to demonstrate all).

- Evidence of establishing an active research lab leading to original data and publication of that data in peer review outlets.
- Creation, development, publication of new theoretical or computational/mathematical models and other work as primary author (e.g., critical re-analyses or paradigm-shifting reviews) that advance conceptual understanding of phenomena or social issues or enhance the ability to predict important real-world outcomes.
- Evidence of publishing independently of PhD and postdoctoral mentors.
- Serving as senior author (defined as either 1<sup>st</sup>, last author, or corresponding author) on publications as appropriate for discipline.
- Publishing as co-author with undergraduate-student, graduate-student, or post-doctoral student mentees serving as 1st author.
- Success in obtaining external funding as Primary Investigator (PI) (see section on *Pursuit of External Funding* for grant writing expectations).
- Leadership roles (first, primary, or corresponding author) on multi-authored collaborative/team projects.

In cases in which the candidate’s publication record since joining UMD is disproportionately represented by papers co-authored with previous mentors, it is important that the candidate demonstrate a significant role on those papers in the annotations. The department values interdisciplinary and collaborative research. *Where appropriate, candidates should describe the nature of their ongoing collaborations and their contributions to that work in their annotations and in their personal statement.*

While the creation of original data is considered one avenue toward demonstrating independence, it is recognized that some candidates may also make use of archival or pre-existing data sets as part of their programs of research. It is also possible that some candidate’s program of research may rely heavily on the development of quantitative methods or models in which simulation methods are used. In such cases, candidates personal statements should discuss the use of these approaches within the context of their program of study to aid both external reviewers and members of the promotion committee.

### 2.1.2 Research Productivity

The primary and most important metric for assessing productivity is publication in *peer-reviewed journals*. In some instances, candidates may also author or co-author papers that appear in *peer-reviewed conference proceedings* in areas where publication in proceedings is normative (e.g., computer science, machine learning, engineering) and where rejection rates are similar to selective peer-reviewed outlets. Proceedings of these sorts will be weighed similarly to peer-reviewed journals. Book chapters and other scholarly products (e.g., editorial, popular science articles, blog posts, non-peer reviewed pre-prints, etc) will be considered part of the research productivity record, but candidates should be aware that greater weight will be given to papers in peer-reviewed outlets.

The department recognizes the value of conducting research on diverse populations and the unique challenges involved with data acquisition that such efforts may entail, as well as systemic publication barriers for researchers and research focused on these populations [18]. The department also recognizes the growing call for adopting open and transparent scientific methods, such as pre-registration, registered reports, and providing unfettered access to data, analysis code, and research instruments to enhance reproducibility and accelerate science [12, 14, 15]. Because research on diverse and difficult to study populations and the use of open-science research protocols often require additional time and effort, evaluations of research productivity should be weighed in light of these activities, recognizing that these efforts represent a trade-off with the quantity of one’s work (see section on *Quality and Potential for Impact*).

Although publication is the *primary* means of assessing research productivity, the department recognizes that there are many other products that one may generate throughout the process of conducting research that have positive value for science and society. Because there is considerable variation across research approaches and variation across publication practices, there is no single metric that can be used to define research productivity. Assessments of research productivity should weight the following attributes:

- Pattern of *sustained* publication of research in peer reviewed outlets at a rate appropriate for one’s research program and approach to science, with consideration of research practices that may require additional time and effort for collecting and curating data (e.g., use of difficult to reach populations, community engaged research, open science methods, longitudinal design, and multi-method approaches).
- Extent to which publications reflect substantial (e.g., multiple studies, large samples, major theoretical or quantitative frameworks) versus smaller (e.g., more limited intellectual contribution, smaller samples) contributions relative to disciplinary standards.
- Publication of book chapters, editorials, popular science articles
- Curation or creation of new data sets that are made available publicly to the extent ethically possible.
- Creation and open sharing of research or analysis tools, research scales, behavioral tasks, and computer code.

- Creation of significant resources for facilitating research (e.g., creation of human subjects database, creation of platforms for hosting large datasets to facilitate collaborative science, etc.)
- Development of products leading to patents or intellectual property (IP) disclosures
- Participation in conference presentations, posters, and invited colloquia

### 2.1.3 Quality and Potential for Impact

The department of psychology values high quality basic and applied science that adheres to high standards of research integrity and transparency. The department also recognizes and values research that contributes to advancing our basic understanding of social, behavioral, or neural systems, to the creation of public policy, and to addressing societal problems in both the local and broader communities. Although the department values the use of open science approaches, it is also recognized that not all research data can be openly shared due to ethical considerations (open as possible, closed as necessary). As recommended in [12, 14, 8, 15, 13, 16, 7] and the National Academies initiative on Aligning Incentives, the department considers a variety of activities as part of assessments of quality and potential for impact. Candidates can demonstrate the quality and potential impact of their work in many different ways. The primary means for evaluating quality and potential impact is through expert evaluation by faculty within the candidates' specialty area and external evaluators. The evaluation of quality and potential for impact should be weighted in light of the following factors (candidates are *not* expected to demonstrate all):

- Potential for advancing basic understanding of the psychological and brain sciences broadly construed
- Application of basic science for addressing real-world problem and/or societal needs.
- Involvement in community-engaged research aimed at addressing relevant social issues that leads to publication or public policy.<sup>1</sup>
- Research that addresses gaps in the literature as they pertain to historically under-represented groups.
- Methodological rigor demonstrated in selected published works provided by the candidate, assessed by disciplinary experts (external reviewers, and committee members within the candidate's speciality area) [6]
- Evidence of adhering to standards for conducting transparent, ethically sound, and reproducible research
- Complete reporting of results; pre-registration; registered reports
- Development of research tools, instruments, code, and data and the open sharing of those resources to the extent ethically permitted (By definition, closed data, tools, and code cannot be impactful because it is not usable by others)
- Commitment to providing equitable access to scholarly articles through open access publication, green open-access options, and/or pre-print servers in accordance with UMD's Equitable Access policy.

**Note on the use of citation counts and journal impact factors.** In keeping with the recommendations stated in the San Francisco Declaration on Research Assessment (sfdora.org) and other consensus statements [12, 8] the department discourages the use of impact factors and citation counts in evaluating faculty.<sup>2</sup> Recent research raises concerns about their validity as indices of research quality or impact [2, 1, 5, 20] and concerns over the potential for their use to adversely impact some

<sup>1</sup>Engaged research is defined as research conducted in partnership with a specific community in which the community and researcher work together to identify research questions that are of mutual interest.

<sup>2</sup>The Association for Psychological Sciences is a signatory of the SF Declaration on Research Assessment and discourages the use of impact factors in evaluation of faculty.

groups more than other (in particular women and scholars from underrepresented groups) [e.g., 19, 10, 21]. Faculty should avoid publishing in predatory journals (for list of potential predatory journals see <https://guides.library.yale.edu/c.php?g=296124p=1973764>).

**Note on awards.** Although the department values national recognition, special honors, or awards, we also recognize that the process by which candidates might be nominated or selected for awards can reflect psychosociological processes known as the Matthew Effect [11], in which recognition is more likely to be bestowed upon those who have already been recognized. These processes can perpetuate existing structural barriers that impede career advancement of certain individuals or groups.<sup>3</sup> For these reasons, the absence of awards should not be interpreted negatively.

### 2.1.4 Pursuit of External Funding

Although there is no requirement for obtaining external funding, the department of psychology expects all faculty to engage in grant writing as appropriate for their work. Grant writing, whether successful or not, is considered part of the academic record and is a component of one's overall productivity. Expectations for obtaining funding is considered within the context of disciplinary norms, availability and access to funding opportunities appropriate for ones research program, and the need for external funds to sustain ones program of research. The department recognizes both relatively low funding rates for many areas of psychological science and evidence for a high-degree of arbitrariness in the grant review process due to lack of reviewer agreement [17]. The department also recognizes the evidence indicating systemic biases in funding decisions that manifests in lower funding rates for scholars from underrepresented groups [9]. Thus, the most important consideration in considering external funding is that the candidate has been active in pursuing external funds, not the success or funding amounts.

## 2.2 Teaching and Mentorship

The department of psychology values high-quality teaching and mentoring that fosters student development, learning, and career advancement. Faculty are expected to contribute significantly to the overall teaching mission of the department, including classroom instruction as well as mentorship of undergraduate, graduate, post-graduate, and post-doctoral trainees.<sup>4</sup> In keeping with the spirit of the Land Grant mission and the University's commitment to diversity, equity, and inclusion, the department also highly values efforts that maximize access and affordability as well as efforts that support an inclusive learning environment for our diverse student body. Candidates' performance in teaching and mentorship should be evaluated on multiple criteria within the context of a holistic evaluation. These criteria include: (a) Commitment to teaching effectiveness, (b) Development or innovation, and (c) Mentorship.

### 2.2.1 Commitment to Teaching

Faculty are expected to demonstrate a commitment to contributing to the overall teaching mission of the department and to the development of effective teaching skills. Although student evaluations are part of the overall dossier, student evaluation data is weighted relatively little due to their documented unreliability, biases, and potential for producing adverse impact [4]. Faculty can demonstrate this commitment in multiple ways (candidates are *not* expected to demonstrate all):

- Number and variety of courses taught in service of meeting the department's teaching mission
- Participation in activities aimed at improving and revising course content or methods, etc

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<sup>3</sup>Colloquially, the Matthew effect refers to the phenomena in which the rich get richer while the poor get poorer, thereby widening the gap between the haves and have-nots. Merton [11] reviewed evidence that this sort of increasing disparity is observed in science, both in citations and in professional recognition.

<sup>4</sup>As a general rule of thumb, faculty are expected to have developed two undergraduate courses and one graduate course in preparation for tenure. The department nevertheless recognizes that the number of different courses that one develops may be more or less for any given faculty member depending on their other activities, grant buyouts, career development awards, etc, that limit teaching opportunities. To provide the best opportunity for faculty to demonstrate teaching effectiveness, faculty should consider teaching one high-demand undergraduate course and one more specialized course in their area of expertise.

- Evidence of teaching effectiveness as demonstrated on peer teaching evaluations. Peer teaching evaluations are weighted heavily in the overall assessment of teaching quality.
- Evidence of teaching effectiveness as demonstrated on student evaluations, *interpreted cautiously and with recognition of known biases and limitations of student evaluations*. [4]
- Delivery of teacher training workshops aimed at supporting the development of faculty and graduate students
- Creation of, or involvement in experiential- or service-learning programs that foster civic engagement or engagement with the local community

### 2.2.2 Curricular Development and Innovation

The department of Psychology values the development and innovation of courses and material that maximize student impact, foster an inclusive classroom, address issues of equity and access, and modernize the department's curriculum. There are multiple avenues to demonstrate development and innovation (faculty are *not* expected to demonstrate all)

- Creation of teaching materials and methods that incorporate diverse perspectives appropriate for the course content; creation of inclusive syllabi and course materials that represent the diversity of scholars
- Engagement in training activities related to new teaching pedagogy, technology, or course innovation
- Creation, use, and/or dissemination of Open Education Resources, technology (e.g., statistical software), or other material that reduce cost of education for students
- Creation of new courses or curriculum to address needs or gaps in undergraduate and/or graduate education.
- Creation or substantive revision of course material or teaching resources
- Participation in activities that lead to major course re-designs
- Scholarship related to teaching or pedagogy leading to dissemination in professional settings (e.g., conferences and publications)
- Teaching innovation grants or awards (both internal and external)

### 2.2.3 Commitment to Mentorship

Faculty are expected to provide meaningful mentorship experiences to students and/or trainees. As with research and scholarship, we recognize that there are many ways for candidates to demonstrate successful and impactful mentorship. Evaluation of mentorship will therefore focus on the substance and quality of the mentorship provided and not on the number of students supervised. Faculty are expected to show evidence of active engagement with students leading to positive professional outcomes, a commitment to providing relevant training experiences for students, and career mentoring. Mentorship dedicated to members of traditionally underrepresented groups is particularly valued. Evidence of commitment to mentoring can be established in multiple ways (candidates are *not* expected to demonstrate all):

- Undergraduate or graduate student mentoring in research. Examples include engagement of students in research opportunities, mentoring student presentations, involvement in research projects leading to publications, and other forms of mentoring.
- Engagement in mentorship through professional organizations, student clubs, or other student-centered organizations or programs
- Development of materials or resources to facilitate student mentorship
- Engagement in student advising or career development activities at either the graduate or undergraduate level.

## 2.3 Engagement/Service

The Department of Psychology values *active* participation in shared governance, service to professional societies, and engagement with the broader community as part of the overall contributions that faculty may provide to the academic and Land-Grant missions. Candidates for Associate Professor are expected to actively participate in 1-2 committees per year, as per departmental policy. There are multiple ways to demonstrate engagement and service (candidates are *not* expected to demonstrate all):

- Active participation in 1 - 2 departmental committees per year
- Participation in college-wide or campus-wide committees
- Service on editorial boards or editorships
- Reviewing for journals
- Service to professional societies. Leadership role within societies (secretary, judge of student posters, etc)
- Development and implementation in workshops aimed at fostering career advancement for undergraduate students or graduate students or taking on leadership roles for such activities
- Faculty liaison for student groups such as Psi Chi and other student-centered groups
- Service on grant panels or reviewing for granting agencies
- Community outreach or engagement with the broader local or state communities

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