PURDUE
UNIVERSITY

FACULTY HANDBOOK
for
ACADEMIC PROMOTION AND TENURE

REWARDING ACHIEVEMENT IN

LEARNING • DISCOVERY • ENGAGEMENT

Prepared by the P&T Task Force and Approved by the Area Committee {XE "Area Committee" }College of Technology
Purdue University
for the
West Lafayette Campus and Statewide Technology Locations

January 2014
Version 8.0

TABLE OF CONTENTS

PREFACE

This handbook has been prepared for the purpose of informing members of the faculty of the College of Technology and Purdue University of the criteria{ XE "Promotion criteria" } for promotion and tenure of technology faculty. In addition, this handbook is one source of guidance to help { XE "Promotion committee:Area" }{ XE "Promotion committee:Area" }{ XE "Area committee" }individual faculty in preparation of promotion document{ XE "Promotion document" }s. This handbook represents the cumulative efforts of senior faculty members from the college. It is intended to interpret the university criteria{ XE "Promotion criteria" } for promotion and tenure{ XE "Tenure" }{ XE "Criteria:tenure" } as they apply to the mission and character of the College of Technology. The time and effort voluntarily contributed by faculty to the development of these guidelines is greatly appreciated.

It is important to recognize that promotion/tenure{ XE "Tenure" } review is a peer review{ XE "Peer review" } process; and, therefore, it is an ever-changing process. Although changes in the process and associated documentation typically occur slowly, they do occur regularly. In view of this, the faculty recognize that this handbook must be a living document reflecting change as it occurs. Each faculty member's suggestions for improvement are needed and should be provided to either the respective department head or members of the Area Committee{ XE "Area Committee" } of the college.

In its various disciplines, the College of Technology is a national{ XE "National and international recognition" } role model for technology education. The college recognizes that faculty development is the primary prerequisite to maintaining this stature. The following criteria{ XE "Promotion criteria" } specify how the Area Committee{ XE "Promotion committee:Area" }{ XE "Area Committee" } and Primary{ XE "Promotion committee:Primary" }{ XE "Primary committee" } Committee{ XE "Promotion committee:Primary" }{ XE "Primary committee" } assess faculty accomplishments.

The faculty of the College of Technology acknowledges its responsibility to acquire, appraise, and disseminate knowledge. Faculty members are expected to communicate this knowledge to their immediate community of students and scholars, to their profession, and to society at large. The faculty also acknowledges its responsibility to serve Purdue University, the local community, the state of Indiana, and the nation.

The faculty of the College of Technology endorse the university's mission of learning, discovery, and engagement and { XE "Creative endeavor" }{ XE "Scholarship" }{ XE "Scholarship" }{ XE "Service" }{ XE "Service" }recognize the College of Technology's deep commitment to quality undergraduate and graduate learning, applied research, and engagement.

This document is dynamic. For the latest revisions and recommendations, see the College of Technology website. The version number is always printed at the bottom of the document cover.

VERSION 8.0 REVISION HISTORY-

USING THIS HANDBOOK

This handbook has been prepared as a guide for faculty in documenting professional achievement. It is intended neither to be prescriptive nor proscriptive. Rather, the handbook is one source of broad guidance to faculty seeking to set goals and to design their career plans, professional development, and activities in concert with the norm of expectations for faculty at Purdue University and the College of Technology. The College of Technology encourages faculty using this handbook to also actively seek guidance and input from faculty peers when setting goals, designing career plans and documenting professional achievement. This handbook is comprised of four (4) sections.

Section I defines and describes scholarship in terms of learning, discovery, and engagement. The discovery section outlines the primary research domain for the college. This section is particularly important as it provides guidance as to what is considered scholarship for the faculty in the College of Technology.

Section II briefly summarizes expectations and criteria**{** XE "Promotion criteria" **}** for the awarding of academic promotion and tenure**{** XE "Tenure" **}** as established by the faculty of the university and the College of Technology. Purdue University's policies and procedures regarding promotion and tenure are published in parts N-65 and N-73 through N-81 of the university's Academic Procedures Manual**{** XE "Academic Procedures Manual" **}**. Each faculty member should become familiar with this information soon after appointment to the faculty. Each department head and statewide technology**{** XE "PST" \t "*See* Statewide Technology" **}{** XE "Purdue Statewide Technology" \t "*See* Statewide Technology" **}{** XE "Statewide Technology" **}** location director has a copy of the Purdue University Academic Procedures Manual for reference.

Section III specifies format requirements regarding the preparation of an individual's promotion document**{** XE "Promotion document" **}**. These specifications**{** XE "Promotion document:formatting" **}{** XE "Promotion document:format" **}** allow consistency for readers of the documents and are particularly important for those reviewers who are not personally familiar with a candidate's work or discipline.

> *The suggestions for content are <u>that alone</u> and are provided as a stimulus that <u>should not be interpreted as limiting a candidate's information</u> nor as sufficient to satisfy promotion and tenure**{** XE "Tenure" **}{** XE "Criteria:tenure" **}** criteria**{** XE "Promotion criteria" **}**.*

Section IV provides a succinct description and flow charts of the procedures and process for peer review**{** XE "Peer review" **}** for promotion/tenure**{** XE "Tenure" **}** consideration. In addition, typical procedures of performance review and contract renewal during the probationary years are presented. Preparing a profile of achievement in the format**{** XE "Promotion document:formatting" **}{** XE "Promotion document:format" **}** of the promotion document**{** XE "Promotion document" **}** during the first year of service**{** XE

"Service" **}**, with annual updates and revisions, is prudent practice. The benefits of these practices should be self-evident.

Faculty should also review the current Office of the Provost memo, accessible from the Provost's website, regarding West Lafayette Campus Promotions Policy that outlines Criteria for Promotion as well as the Faculty Review System.

SECTION I
SCHOLARSHIP AND RESEARCH DEFINED

Introduction

This section is an overview of how the College of Technology views scholarship and research. Technology is a diverse and emerging discipline and there may be some confusion as to its role in scholarship and research and how it is similar or differs from more mature disciplines. Scholarship is defined and then described within the context of learning, discovery, and engagement. The definition of research is preceded by a rationale so that the reader can better understand the context for the research that is commonly conducted in the College of Technology.

Scholarship Defined

Scholarship is creative, systematic, reflective, and a rational inquiry into a topic. All forms of scholarship start with at least two shared elements: the activity of inquiry and the resulting product. To be designated as scholarship there must be at least three key characteristics: It must be public, subject to critical review and evaluation, and accessible for exchange and use by other members of one's scholarly community. Scholarship can be cited, refuted, built upon, and shared among members of that community. Scholarship is work that is innovative or breaks new ground, and is judged to be meritorious and significant by the scholar's peers.

Scholarship Interpreted

Acquisition, interpretation, and dissemination of knowledge are the fundamental duties of Purdue University faculty, as indicated on page N-73 in the Academic Procedures Manual, and are expected of all faculty members. Scholarship of learning, scholarship of discovery, and scholarship of engagement, individually or in any combination, constitute one necessary element for the awarding of promotion and tenure. The choice of scholarship category is at the candidate's discretion, as long as the scholarly nature of the content is clearly evident within the promotion document.

The Scholarship of Learning

The scholarship of learning typically has the learner at its core. A few examples of the scholarship of learning are experimenting with methods of instructional delivery or the use of instructional technology, adapting pedagogical approaches from widely-differing disciplines, and developing and testing new technical content to prepare students for professions and leadership positions in business and industry. In addition, developing and

testing new pedagogical approaches or studying methods to increase diversity in technology studies, and developing and testing curricula related to integrative science, technology, engineering, and mathematics (STEM) can lead to the scholarship of learning.

College of Technology programs have a long and rich history of excellence in the teaching of technology and there are opportunities to extend that talent to advance technology teaching and learning. Research into the development, evaluation, and implementation of the teaching of technology is a college strength that offers much potential for future work. This is not so much the science of learning, which is primarily the domain of education and psychology, but the application of the science of learning to teaching and learning technology. Technology faculty also have opportunities to engage in the novel application of information technology and cyberinfrastructure to teaching and learning that could be of benefit to all disciplines preK-18. Related to this is an opportunity to lead in research and development of best practices for professional and adult education for business and industry (workforce development).

The Scholarship of Discovery

Faculty in technology involved in discovery have capability and opportunity to engage in research that is *use*-inspired. Use-inspired research is motivated by an end goal that will solve problems or enhance existing techniques and processes (see also Appendix A). Faculty in technology are also engaged in discovery that is purely *applied* in nature where the specific goal is to apply technology in novel ways to solve problems, extend existing technology, or create new technologies. Technology faculty may have the knowledge and professional passion to pursue use-inspired and pure applied research as leaders in their discipline. As with all research, quality work that adheres to scholarly standards as described in the scholarship section is valued. The discovery work of technology faculty may also result in new products, patents, and copyrights, and generate new business opportunities.

The scholarship of application bridges the gap between theory and practice. It is action-based research that involves problem identification and resolution. Many technology faculty are adept at this type of research, which in many cases is funded by business and industry. Although some could view this as service, in technology this action-based or pure applied research is scholarship if pursued to that end through appropriate publications and presentations; dissemination and peer review. In a few cases there could be new businesses or new products created, which is innovation. As research in technology matures and gains momentum, innovation will become a common output of the research. Since national laboratories and universities produce much of the innovation in this nation, technology programs have the potential to become a leading source of university-based innovation.

The Scholarship of Engagement

Engagement is the means by which the scholar serves society. Engagement, in the academic context, implies a partnership between the scholar and others, often outside the confines of the university. Engagement brings the components of learning and discovery to society, where society constituents could be identified as community, industry, and government. Engagement is the active mode of integrating learning and discovery into

practical application for the general public while bringing the information of society back to learning and discovery for improved knowledge use. The scholarship of engagement, then, addresses the development and/or dissemination of knowledge that mutually benefits the university and its societal constituents. Applying the same rigor as scholarship of learning and scholarship of discovery, scholarship of engagement encompasses the application of academic knowledge and skills to providing returns for society, assisting in the advancing of educational goals for all constituents. For the faculty whose primary career focus is as an Engagement Scholar, engagement will result in publications and presentations; dissemination and peer review.

Products of Scholarship

How is scholarship documented? The paragraphs below are intended to suggest common forms of scholarly documentation and are by no means exhaustive. Possible ways to document scholarship do not reflect on the relative significance of these possibilities, and are offered as suggestions only. Other forms of documentation may better fit a particular scholarly effort, and must be determined by the individual. For non-traditional documentation, and/or to demonstrate the significance of a scholarly product, the evidence of impact of the scholarship should be listed.

Traditional products of scholarship that apply to all three categories of learning, discovery, and engagement include refereed journals, books, chapters, original works, reports to sponsors, and non-refereed publications. Competitive grants and contracts offer another avenue of scholarly product that is common to all categories of scholarship.

In addition to publications and grants, products of learning scholarship may be artifacts such as educational software and laboratory instructional hardware. Peer-recognized instructional methods workshops offer another venue for dissemination of learning scholarship. Again, this is not an exhaustive list.

Products of discovery may also be expressed in applications created, artistic and creative presentations, pilot projects, and patents and licenses if they are deemed to be innovative or break new ground, and are judged to be meritorious and significant by the scholar's peers. Creative accomplishments such as an exhibition, installation, production, or performance constitute another discovery venue. Applications of discovery in the field may benefit government agencies, professional and industrial associations, educational institutions, etc. Product development, computer programs generated, technology transferred or adapted, system development and implementation, and the impact of discovery on society can all be considered discovery scholarship if they have been subjected to critical review. As with learning scholarship, the products of discovery scholarship must be sufficiently public to allow evaluation, exchange, and use by one's scholarly community.

Products of engagement scholarship potentially include all of the elements listed under learning and discovery scholarship. Other examples of products of scholarly service often involve the published results of participation in the Technical Assistance Program and contributions as an editor of journals. Evidence of impact can become critical when considering products of engagement scholarship where documentation generally cannot be

accessed by reviewers within the College of Technology and Purdue University. Common forms of impact evidence are numbers of dollars saved, jobs generated, workshop attendees, and the like.

Scholarship Summary

Scholarship forms the fundamental tenet for tenure and promotion at Purdue University. Evidence of scholarly inquiry and the resulting scholarly products must be incorporated into every promotion document. The following are common examples of the types of publications that are the outputs of scholarship:

- Full articles in refereed journals
- Short communications, letters, notes or briefs in refereed journals
- Conference or symposium proceedings papers
- Conference summaries or abstracts
- Editor of refereed journal
- Books
- Chapters in books
- Book reviews
- Government, university, industrial reports and standards
- Publications in trade journals
- Publications in popular press/magazines
- Invited publications and scholarly presentations
- Other submitted publications and editorial contributions

See Appendix A: Research Defined for the College of Technology, for additional insight into basic, applied, and use-inspired research.

SECTION II
PROMOTION AND TENURE CRITERIA FOR THE COLLEGE OF TECHNOLOGY

GENERAL CRITERIA FOR AWARDING OF TENURE

The general criteria for promotion and tenure are primarily based on a person's record of scholarship. For promotion and tenure review purposes, scholarship is defined in Section I.

Evidence of the candidate's scholarship of learning, discovery, and/or engagement is an essential part of the documentation necessary for promotion and tenure.

The expectations for achievement of tenure in the College of Technology are the same as those for academic promotion; tenure, however, is a separate consideration and issue from promotion to an advanced academic rank (Associate Professor or Professor). In all cases, however, tenure is concurrently awarded with promotion to the rank of Professor or Associate Professor from a preceding rank.

In some cases tenure may be granted to faculty members in their existing rank. Achieving tenure-in-rank is an exception rather than normal practice and is warranted when highly experienced faculty members are hired at the rank of Associate Professor or Professor. The awarding of tenure at the rank of Assistant Professor is not the general practice of the College of Technology or Purdue University.

The procedures used to grant tenure in rank differ from that of academic promotion. Candidates who are promoted to an advanced rank are those who receive a majority vote at all three promotion committees: Primary (department), Area (college), and University. Tenure in rank decisions are first evaluated by the Primary and Area Committees. Candidates who have received affirmative promotion or tenure votes in both of these committees are forwarded to the Provost, who is ultimately responsible for all tenure in rank decisions.

GENERAL CRITERIA FOR ACADEMIC PROMOTION

In view of the college's and university's mission, a candidate for promotion is expected to have demonstrated and documented excellence, continuous improvement, and scholarship in learning, discovery, or engagement. Faculty can demonstrate scholarship in more than one area, but it is more common for a faculty to demonstrate their scholarly record in a single area. The expectations for promotion to associate professor and professor are different and are described in the following subsections.

It is important to recognize that candidates for promotion are evaluated on their overall achievement, not merely an inventory of individual accomplishments. In other words, candidates for promotion are evaluated on the aggregate of professional achievement and scholarship including its quality, level, and impact.

Promotion to Associate Professor

> *" A successful candidate for promotion [to associate professor] should have a significant record of accomplishment as a faculty member and show promise of continued professional growth and recognition."*
>
> *(Purdue University Academic Procedures Manual, page N-74, Rev. 8/03).*

Most importantly, candidates for promotion to associate professor in the College of Technology must demonstrate excellence in scholarship of learning, discovery, and/or engagement. The key question addressed by promotion committees is:

> *"Has the candidate demonstrated promise of national prominence and impact through his/her scholarship of (1) Learning, (2) Discovery, and/or (3) Engagement?"*

Promise of continued professional growth and recognition are demonstrated in a variety of ways. Professional accomplishments are measured by authorship of refereed journal articles, refereed conference proceedings, textbooks published by national or international publishers, funded grants, published technology policy, et cetera, that advance the current state of practice, solve problems, extend existing technology, or create new technologies within the context of learning, discovery, and engagement. Active participation in graduate studies and in appropriate technical and educational societies are additional indications of professional growth and promise. These examples are not intended to limit the potential avenues to increased recognition, but are merely suggestive of proven methods of becoming more widely recognized as a contributing member of one's professional reference group. Therefore, candidates are carefully screened to determine their potential for expanded scholarship and recognition as technologists. Candidates should consider how to portray their scholarship beyond a listing of titles; to include a meaningful narrative such that reviewers can grasp the relevance, importance and essence of the work and the commensurate contributions to their field, the university and society.

Promotion to Professor

> *"Successful candidates [for promotion to Professor] should be recognized as authorities in their fields of specialization by external colleagues -- national and/or international as may be appropriate to their academic disciplines -- and be valued for their intramural contributions as faculty members."*
>
> *(Purdue University Academic Procedures Manual, page N-74, Rev. 8/03).*

Promotion to Professor is based on the same performance categories (scholarship of learning, discovery, and/or engagement) as promotion to associate professor; however, the performance expectation is different. The fundamental question is:

> *"Has the candidate achieved national and/or international prominence and/or impact through his/her scholarship?" The national or international nature of this expectation results in more emphasis on*

significant scholarly achievement and recognition, and professional association.

Candidates for promotion to Professor must present a record of consistent, relevant, and sustained excellence in the scholarship of learning, discovery, and/or engagement and in addition demonstrate expanded depth, breadth, and quality of faculty service and mentoring. Candidates for promotion to Professor will demonstrate expanded levels of national recognition or impact. These efforts should ideally be focused on a specialization and its relevant professional associations. This is typically accomplished through several of the following activities: (1) significant seminal publications such as instructional texts or frequently referenced refereed papers, (2) leadership positions and/or significant service in appropriate professional associations, (3) significant record of funded grants, (4) active participation and leadership in graduate studies, (5) distinctive professional service to industry, and/or (6) administrative service of superior value to the university, college, department, outreach location, and profession.

It should be noted that the accomplishments of a successful candidate for promotion to the rank of Professor should illustrate a history of achievement leading to national recognition. The narrative should indicate how the candidate's accomplishments in learning, discovery, and engagement combine to establish that national recognition and letters of support should reflect that national recognition. Again, candidates should portray their scholarship beyond a listing of titles; to include a meaningful narrative such that reviewers can grasp the relevance, importance and essence of the work and the commensurate contributions to their field, the university and society.

Promotion of Clinical /Professional Faculty to Associate Professor and Professor

Clinical/Professional faculty are expected to serve as "pathfinders" in their respective departments and the College of Technology. In so doing, they provide leadership in several of the following activities:

- Engaging students and faculty in active learning that takes place while working in professional industrial settings
- Focusing on the applied nature of College of Technology core disciplines
- Applying knowledge resources to improve technology education
- Disseminating knowledge, as appropriate to their discipline and their engagement activities
- Developing new economic opportunities for the department and the college
- Providing visionary collaboration among departments in the college and throughout the university, in their fields of expertise
- Developing professional relationships with industry and governmental agencies

Successful candidates for promotion from Clinical/Professional Assistant Professor to Clinical/Professional Associate Professor should have a significant record of accomplishments as a Clinical/Professional faculty member and show promise of continued professional growth and recognition.

Successful candidates for promotion from Clinical/Professional Associate Professor to Clinical/Professional Professor should be recognized as experts and authorities in their field of specialization and be valued for their contributions as Clinical/Professional Faculty.

CRITERIA FOR EXCELLENCE IN TEACHING & LEARNING ACTIVITIES

While all candidates are required to document their scholarship and its contributions, candidates are also required to demonstrate excellence in the classroom and contribute to the curriculum. A successful faculty member not only demonstrates activities in the scholarship of learning by sharing his or her work with peers, but must also demonstrate effectiveness in teaching (instructional delivery) and instructional development. Effectiveness in all three areas (scholarship, instructional delivery and instructional development) must be proven for promotion and tenure, as effectiveness in only one or two areas would be incomplete.

Effective teaching requires the faculty member to maintain currency in both the discipline and the teaching of the discipline. It requires that a faculty member strive for constant improvements in student learning and motivation. It also demands that the faculty member reflect upon both the instruction and the learning. The scholarship of learning is then built upon this effective teaching, and leads to artifacts that are public, are subject to review, and are accessible to other members of that community.

Many faculty develop instructor manual**{** XE "Publications: instructor manuals" **}{** XE "Instructional materials:instructional manuals" **}{** XE "Instructional manuals" **}**s, tutorials, laboratory manual**{** XE "Publications: laboratory manuals" **}{** XE "Instructional materials: laboratory manuals" **}{** XE "Laboratory manuals" **}**s, case studies**{** XE "Publications:Case studies" **}{** XE "Instructional materials:Case studies" **}{** XE "Case studies" **}{** XE "Publications:case studies" **}{** XE "Instructional materials:case studies" **}{** XE "Case studies" **}**, casebooks, study guide**{** XE "Publications:study guides" **}{** XE "Instructional materials:study guides" **}{** XE "Study guides" **}**s, projects, workbooks, software**{** XE "Publications:Software" **}{** XE "Instructional materials:Software" **}{** XE "Software" **}{** XE "Publications:software" **}{** XE "Instructional materials:software" **}{** XE "Software" **}**, courseware, and the like, which may ultimately evolve into published or presented works that disseminate instructional concepts and techniques. National publication and adoptions of printed or electronic textbooks**{** XE "Instructional materials:textbooks" **}{** XE "Publications:textbooks" **}{** XE "Textbooks" **}**, workbooks, case studies, tutorials, reference manuals, laboratory manuals, etc. offer evidence of impact at both local and national levels. It is recognized that the publication of such instructional materials often involves greater sustained effort and time than other types of publications**{** XE "Publications" **}**.

Publication of refereed**{** XE "Publications:refereed" **}{** XE "Refereed publications" **}** and reviewed articles in sources such as educational journals and educational conference proceeding**{** XE "Conference proceedings" **}{** XE "Publications:conference proceedings" **}**s is consistent with the mission of sharing curriculum and instructional innovation with the academic community in one's discipline. In addition to describing curriculum ideas, innovations, pedagogy, and process, it is expected that educational scholarship be focused on improved learning that is demonstrated through accepted methods of measurement and assessment. Refereed publications such as journal articles are recognized as stronger

scholarly achievements than reviewed or non-refereed publications (See Appendix B for more information on the difference between refereed and reviewed publications).

All candidates are expected to exhibit an appropriate balance of refereed and reviewed publications exemplifying candidate's contributions in his/her discipline. Some evidence of recent refereed journal articles is usually expected for promotion to all ranks.

Evidence of grant writing related to curriculum, course, and laboratory development is important to the continuous improvement of College of Technology programs. Normally, successful grant writing will result in published scholarship as described above.

Instructional Delivery

For all candidates, excellence in effectiveness of instructional delivery must be demonstrated by a history of student evaluation data. These data must include all courses taught by the candidate over the past three years.

While most candidates will use the Purdue Instructor and Course Evaluation Service (PICES), it is also recognized that different evaluation instruments are established and used in some departments. In all cases, the intent is that the candidate demonstrates the required history of student evaluation data. Student written comments are not to be included in the promotion document. Teaching awards are not essential, nor in all cases sufficient; however, they are usually considered evidence of excellence in instructional delivery. Participation in national and international teaching assignments may also be used to demonstrate breadth of instructional delivery. Interdisciplinary and cross-disciplinary cooperation in the delivery of instruction indicates both versatility and regard for the promotion of a candidate's instructional expertise. Faculty members are encouraged to participate in activities and efforts to improve their instructional delivery (the art of teaching, or the art of teaching within the candidate's discipline).

> *Excellence in instructional delivery is necessary but not sufficient to demonstrate overall excellence in teaching. Excellence in instructional development is also required (see next subsection).*

Instructional Development

Excellence in relevant undergraduate and graduate instructional development is also necessary to demonstrate excellence in teaching. Instructional development is defined as those activities that precede, support, and improve instructional delivery and student learning.

A record of contributions to the continuous improvement of the candidate's curriculum and assigned courses is essential to demonstrate overall excellence in instructional development. The substantial redesign of course content and pedagogy, the implementation of new courses, development of instructional facilities, and continuous improvement directed to learning assessment are some examples of accomplishments in instructional development.

Undergraduate and graduate course development is considered as distinctive evidence of instructional development. Contributions to transportability, adaptability, and compatibility of courses among the Purdue campuses, statewide locations and for distance delivery are considered important in the area of instructional development. Development of special instructional materials, e.g., study guides, laboratory lessons, case studies, software tools, and courseware can be considered distinctive and significant if peer reviewed.

> *Each member of the teaching faculty is expected to develop instructional materials. Therefore, course syllabi, lesson plans, lecture notes, examinations, and routine visual aids are expected products of normal class preparation and are not considered special instructional materials.*

Some other examples of important and valued instructional development achievements are: (1) development and delivery of distance learning courses and distance learning extensions to traditional courses, (2) internationalization of curricula and courses, (3) contributions to making courses cross-disciplinary and interdisciplinary, (4) contributions to adapting courses to the specific needs and requirements of other departments within the college or university, and (5) successful grantsmanship to support curriculum development or pedagogy.

Innovation and experimentation in course development, instructional materials, and instructional delivery are considered important. Evidence of experiments and documentation of results can be as important as successful outcomes, but should only be cited when peer reviewed and published.

It is recognized that certain professional certifications can contribute to course and curriculum development; therefore, faculty are encouraged to seek appropriate certifications.

Because the College of Technology operates and maintains a large number of instructional laboratories, excellence in instructional development is recognized for those faculty members who conceive, create, and maintain such laboratories. The securing of grants, gifts or donated equipment (including hardware or software) that result in program improvement is an important achievement.

The following are examples of teaching and learning activities that are commonly included in a Promotion & Tenure Document for the College of Technology:

- New courses introduced at Purdue
- Curricular innovations, such as new programs, new minors, etc.
- Courses taught at Purdue
  - Courses taught in the last three years
  - Other courses taught at Purdue
  - Courses taught at other institutions while Purdue faculty
- Teaching scores summary table
- Undergraduate special projects directed

- Short courses, workshops, guest lectures and seminars delivered
- Courses significantly modified at Purdue
- Global initiatives in learning
- Grants and contracts related to learning
- Donations received to facilitate learning
- Contributions to learning space development
- Other significant contributions to teaching and learning
- Curricular innovations, such as new programs, new minors, etc.
- Service learning

CRITERIA FOR EXCELLENCE IN DISCOVERY ACTIVITIES

Faculty in Technology engaged in the Scholarship of Discovery have many opportunities to engage in research that is *use* inspired; that is with a specific end goal in mind that will solve problems or enhance existing techniques and processes. Faculty in Technology have many opportunities to engage in research that is purely *applied* in nature where the specific goal is to apply technology in novel ways to solve problems, extend existing technology, or create new technologies. Technology faculty have the knowledge and professional obligation to pursue use inspired and pure applied research as leaders in their discipline. This obligation is undertaken through the writing and submission of grant proposals to secure funding that supports their research and graduate students. Most discovery activities involve Ph.D and M.S. students and faculty are expected to be active in mentoring graduate students and chairing and serving on graduate student committees.

The media for delivery of discovery scholarship include traditional channels such as refereed journals, books, chapters, original works, reports to sponsors, and non-refereed publications. Discovery scholarship may also be expressed in applications created, artistic and creative presentations, pilot projects, competitive grants and contracts, and patents and licenses. It should be noted that this is meant to be a list of common expressions of the scholarship of discovery, and not an exhaustive inventory of possibilities. The audiences for these various forms of discovery scholarship may range as follows: colleagues and professionals, journal subscribers, corporations and organizations, government, communities, and trade publications, to name the most common.

Typical examples of discovery activities faculty may document for promotion purposes are:

- Ph.D and M.S. thesis and directed project committees, chair or member
- Graduate or undergraduate student research mentoring
- External grants and contracts awarded
- Internal grants and contracts awarded
- Submitted proposals (in review)
- Unfunded proposals
- U.S. and international patents awarded
- U.S. and international patents submitted
- Contributions to technology transfer
- Donations received to facilitate discovery

- Contributions to discovery space development
- Global initiatives in discovery
- Other significant contributions to discovery

Faculty with Ph.D. degrees (or equivalent) are expected to demonstrate a history of mentoring both Ph.D. and M.S. degree graduate students through dissertations, theses, directed projects, and program final exams, as allowed by their programs and graduate faculty classification.

Faculty with terminal M.S. degrees are expected to demonstrate a history of mentoring M.S. degree students through theses, directed projects, and program final exams, as allowed by their programs and graduate faculty classification.

CRITERIA FOR EXCELLENCE IN ENGAGEMENT ACTIVITIES

Engagement is the third component of the university's mission. Engagement can be defined as bringing the components of learning and discovery to society's constituents of community, industry, and government.

Engagement includes a broad variety of activities that draw upon the unique knowledge and expertise of faculty to solve problems and enhance the quality of life in Indiana and the world in ways that fulfill our institutional mission. The College of Technology needs an appropriate definition as well as an institutional framework to support and promote Engagement that is of high quality, has value to the community, university and individual faculty members. According to a recent statement by the National Association of State Universities and Land-Grant Colleges (NASULGC), university engagement remains a "fundamental and essential characteristic of public higher education. Through Engagement, universities and communities demonstrate a sustained commitment to each other that is defined by mutual respect." A consistent exchange between academic departments and centers, funded research projects, and the intellectual expertise of technology faculty and the external community must be ensured, so that scholarship at the College of Technology remains public in the very broadest sense.

Engagement and service activities are expected of all faculty. Engagement activities generally involve external constituents and entail an emphasis on knowledge dissemination. Service activities are more closely aligned with meeting professional or academic obligations and are often internal to the university. In the College of Technology, candidates should demonstrate excellence in more than one of the following three areas: (1) internal service, (2) professional association, and/or (3) industry outreach or public service. The college encourages extension, service, and outreach activities that support the mission of the college. Listings of these activities will be shared between the Engagement Activities and Service Activities sections of the document, depending on which category is most appropriate for a given activity.

College of Technology candidates for promotion are expected to share their knowledge and expertise with others. The nature of engagement activities will necessarily be diverse, but typically involves external partners such as industry, PreK-18 educational institutions, professional association**{** XE "Professional association" **}**s, government or

other outside agencies and groups. To be promoted on the basis of Scholarship of Engagement, a candidate's document should offer evidence of substantial impact on one or more societal constituent.

Scholarly Engagement is the creation, integration, application and transmission of knowledge for the benefit of external audiences and the university and occurs in all areas of the university mission: research, teaching and service. The quality and value of Scholarly Engagement is determined by academic peers and community partners.

External outreach and public service are those activities in which the faculty and university engage the public sector and/or contribute to economic development. These activities are central to the mission of any land grant institution such as Purdue. Many of these activities should be considered engagement, while others may be service activities. Examples of outreach and public service activities appropriate to the College of Technology faculty may include:

1. Participation in continuing education programs on or off the campus (including distance learning) by teaching in graduate, undergraduate, or industry courses, either for credit or no credit.
2. Activities that implement or support the land grant engagement concept of the university in such areas as community development, extension teaching, in-plant courses and other types of field services.
3. Participation in, or leadership of, sponsored consulting partnerships and international programs sponsored by the college or university (e.g., Technical Assistance Program).
4. Unsponsored consulting engagements or summer work experiences with government, industry, academia, or not-for-profit organizations on technical and/or leadership matters.
5. Participation in local, regional, and state economic development activities.
6. Participation on committees promoting inter-institutional cooperation.
7. Consultation to educational institutions outside of Purdue University.
8. Participation in activities that contribute to the expansion of the international dimensions of the university.
9. Participation in business and industry certification reviews (e.g., ISO 9000 quality certification).
10. Other industrial interactions (e.g., establishing faculty internships, short courses, guest lectures, and conferences).

Common engagement activities include:

- Technical Assistance Program activities
- Faculty internships
- Short courses and workshops
- Engagement grants and contracts
- Consulting arrangements
- Invited presentations
- Other industry interactions
- Diversity and climate activities
- Outreach activities
- Appearances in media interviews and other coverage
- Donations received to facilitate engagement
- Other major engagement activities

SERVICE ACTIVITIES

Service activities are activities that provide needed support for others with little direct benefit to the candidate. Service activities are divided into those which are internal to the university and those benefitting external constituents. Internal service activities are those activities that directly support the department, college, university, or its statewide locations. Internal service is expected, but not sufficient to warrant promotion or tenure. All candidates for promotion are expected to contribute to the internal management and operation of their unit, and to public relations for their unit. Candidates for promotion are evaluated for accomplishments in the following categories (as applicable to each candidate).

1. Administrative appointments in the department, college, or university, such as department head, director, or dean.

2. Fulfillment of assigned responsibilities at the department, college, university, or statewide location levels, such as schedule deputy or cooperative education coordinator.

3. Demonstrated leadership or initiative in assigned or voluntary service roles. Examples include webmaster or task force involvement.

4. Participation in public relations activities of the unit. Examples include Family Day, STAR, Destination Purdue, Purdue Scholars Day, Honors Convocation or commencement.

5. Demonstrated leadership in the mentoring of junior faculty (especially important for candidates seeking promotion to Professor).

6. Significant contribution to, or leadership in, standing department, college, university, or statewide location committees.

7. Internal participation in and contribution to program marketing, student recruiting, and retention activities.

8. Internal consulting or work experiences that directly benefit department, college, university or statewide location operations and management. An example would be development of a software program that benefits many faculty, or solves a departmental problem.

9. Leadership in academic and other university affairs.

10. Participation in activities to promote diversity and representation of underrepresented groups in the college and university.

11. Academic counseling of students, both formal and informal.

12. Creating or advising student organizations at the department, college, or university level.

Professional Association and Service

In order to remain current and establish potential or realization of national recognition and impact, College of Technology faculty should demonstrate both a balance and a record of activity and service in professional and scholarly societies.

Professional involvement in professional and scholarly societies may take a variety of forms. Some types of professional involvement are mutually beneficial and lead to scholarship of engagement. These activities should be listed in the engagement activities section of the document (e.g., presenting workshops, seminars, or short courses). Other types of professional involvement contribute to the work of operating an organization, and constitute service activities. Examples of professional service may include:

1. Participation in conference programs as moderator, chair, or organizer.

2. Participation in accreditation committees or visits.

3. Service as an officer, committee chairperson, or committee member at the local, state, national or international level.

Building relationships within one's professional and scholarly communities should begin early in a faculty member's career. Over the course of one's academic career, a faculty member will typically interact with many peers. Promotion to all ranks requires peer reviews from external Professors who can validate the candidate's national prominence and impact as a scholar. Networking through one or more professional associations contributes significantly to this end.

Typical service activities include:

- Committee assignments at the department, college, and/or university level(s)
- Administrative roles at Purdue
- Leadership positions in professional societies or organizations
- Service to government or professional organizations
- Public relations functions for the department, college, and/or university
- Diversity and climate activities

- Mentoring of faculty
- Mentoring or advising of students (individuals or organizations)
- Other major service activities

SECTION III
PREPARATION OF THE PROMOTION DOCUMENT

INTRODUCTION

Academic promotion and tenure**{** XE "Tenure" **}{** XE "Criteria:tenure" **}** signify distinctive achievement and progress in the career of a member of the faculty. Recommendations for promotion and tenure result from an exhaustive peer review**{** XE "Peer review" **}** at the department, college, and university levels, as well as external reviews from individuals who have distinguished themselves in the candidate's discipline. (See Section IV for a detailed discussion of the peer review and promotion process.[1])

In order for a candidate's achievements and potential to be effectively communicated to the Primary**{** XE "Promotion committee:Primary" **}{** XE "Primary committee" **}**, Area, and University Committees, a comprehensive document must be prepared. This document should present a thorough and full profile of a candidate, including professional preparation, as well as achievements in learning, discovery, and engagement. An essential characteristic of a scholar is integrity; hence the document should also be an accurate and honest profile of the candidate's achievements.

It is the sole purpose of Section III to guide individuals in the preparation of their promotion and tenure**{** XE "Tenure" **}{** XE "Criteria:tenure" **}** credentials documentation (commonly referred to as the "Promotion Document**{** XE "Promotion document" **}**"). The guidelines contained herein are not intended to restrict, constrict, or otherwise limit the latitude of an individual in developing a document that most appropriately represents a comprehensive and accurate profile of the candidate's professional achievements.

Preparers should note that while some portions of the guidelines are subject to judgment, the document MUST be prepared using strict adherence to APA formatting guidelines.

Every effort has been made to assure consistency with the aforementioned instructions for preparation of promotion/tenure**{** XE "Tenure" **}{** XE "Criteria:tenure" **}** documents distributed by the Office of the Provost. A thorough study of the above referenced instructions should be made prior to preparation of a document. Provided within this section is information that amplifies and expands the general instructions distributed by the university, particularly those areas in which the College of Technology faculty are most commonly involved.

RELATIONSHIP BETWEEN PROMOTION CRITERIA AND THE DOCUMENT

---

[1] Executive Memorandum, *University Promotion Policy* with *Instructions for Use with President's Form 36**{** XE "*Promotion documents:President's Form 36" **}{** XE "*See *Promotion documents" **}***

Section II of this handbook describes the College of Technology's promotion criteria. These criteria are organized into three categories: (1) excellence in teaching and learning activities, (2) excellence in discovery activities, and (3) excellence in engagement and service activities. Promotion is based on scholarship in learning, discovery, and/or engagement.

The promotion document itself is organized into eight sections as shown below. Additionally, promotion requires peer reviews from external reviewers who can validate the candidate's demonstrated potential for or achievement of national prominence and impact as a scholar.

The following is a table of contents for the full promotion and tenure document. The candidate is responsible for creating his/her document using the major headings found in Table of Contents Section II, Materials Prepared by the Candidate.

TABLE OF CONTENTS

I. MATERIAL PREPARED BY THE DEPARTMENT HEAD

A. President's Office Form 36

II. MATERIAL PREPARED BY THE CANDIDATE

A. SUMMARY STATEMENT

B. GENERAL INFORMATION

B.1 Name

B.2 Degrees

B.3 Positions at Purdue

B.4 Positions at other institutions or organizations

B.5 Licenses, registrations, and certificates

B.6 Honors and awards

B.7 Memberships in academic, professional, and scholarly societies

C. SCHOLARSHIP OF LEARNING, DISCOVERY, AND ENGAGEMENT

C.1 Candidate's statement portraying his/her scholarship and scholarly contributions

D. PUBLICATIONS

D.1 Optional summary paragraph on the nature of the publications

D.2 Full articles in refereed journals

D.3 Short communications, letters, notes or briefs in refereed journals

D.4 Conference or symposium proceedings papers

D.5 Conference summaries or abstracts

D.6 Editor of refereed journal

D.7 Books

D.8 Chapters in books

D.9 Book reviews

D.10 Government, university, industrial reports and standards

D.11 Publications in trade journals

D.12 Publications in popular press/magazines

D.13 Invited publications and scholarly presentations

D.14 Other submitted publications and editorial contributions

E. TEACHING & LEARNING ACTIVITIES

E.1 Candidate's own statement of contributions to learning

E.2 Curricular innovations such as new programs, minors, course, etc. introduced at Purdue

E.3 Courses taught at Purdue

E.3.a Courses taught in the last three years

E.3.b Other courses taught at Purdue

E.3.c Courses taught at other institutions while Purdue faculty

E.4 Teaching scores summary table

E.5 Undergraduate special projects directed

E.6 Short courses, workshops, guest lectures and seminars delivered

E.7 Courses significantly modified at Purdue

E.8 Global initiatives in learning

E.9 Grants and contracts related to learning

E.10 Donations received to facilitate learning

E.11 Contributions to learning space development

E.12 Other significant contributions to teaching and learning

F. DISCOVERY ACTIVITIES

F.1 Candidate's own statement of contributions to discovery

F.2 Discovery programs underway

F.3 Ph.D and M.S. thesis and directed project committees, chair or member

F.4 Graduate or undergraduate student research mentoring

F.5 External grants and contracts awarded

F.6 Internal grants and contracts awarded

F.7 Submitted proposals (in review)

F.8 Unfunded proposals

F.9 U.S. and international patents awarded

F.10 U.S. and international patents submitted

F.11 Contributions to technology transfer

F.12 Donations received to facilitate discovery

F.13 Contributions to discovery space development

F.14 Global initiatives in discovery

F.15 Other significant contributions to discovery

G. ENGAGEMENT ACTIVITIES

G.1 Candidate's own statement of contributions to engagement

G.2 Technical Assistance Program activities

G.3 Faculty internships

G.4 Short courses and workshops

G.5 Engagement grants and contracts

G.6 Consulting arrangements

G.7 Invited presentations

G.8 Other industry interactions

G.9 Diversity and climate activities

G.10 Outreach activities

G.11 Appearances in media interviews and other coverage

G.12 Donations received to facilitate engagement

G.13 Other major engagement activities

H. SERVICE ACTIVITIES

H.1 Candidate's own statement of contributions to service

H.2 Committee assignments in the department, college, and/or university

H.3 Administrative duties at Purdue

H.4 Leadership in professional societies or organizations

H.5 Service to government or professional organizations

H.6 Diversity and climate activities

H.7 Mentoring of faculty

H.8 Mentoring or advising of students (individuals or organizations)

H.9 Other major service activities

III. LETTERS OF EVALUATION

A. REVIEWERS EXTERNAL TO THE UNIVERSITY

A.1 List of all external reviewers solicited for an evaluation and brief background information

A.2 Letter to external reviewer

B. SUPPLEMENTAL LETTERS (optional)

HOW TO USE THIS PROMOTION AND TENURE HANDBOOK

Section III has been prepared in the form of an outline, with supplemental instructions offered in boxes. The outline format**{** XE "Promotion document:formatting" **}{** XE "Promotion document:format" **}** is recommended for most documents; however, narratives are typically included within the structure of the outline. Items have been included for the purpose of providing stimulus to the individual who might overlook

important entries. Items are organized in a manner typical of common practice in order to help the candidate present information in a consistent format suitable for the review by Primary{ XE "Promotion committee:Primary" }{ XE "Primary committee" }, Area, and University Promotion Committees.

WHEN TO START

New faculty should begin to document achievements as soon as possible after beginning employment. Faculty are encouraged to begin by creating a promotion portfolio{ XE "Promotion portfolio" } into which detailed documentation and samples of their work can be collected for later reference. A single one-to-three inch binder should suffice.

> Some departments may require that this supporting documentation be submitted or made available to their Department Head and/or Primary{ XE "Promotion committee:Primary" }{ XE "Primary committee" } Committee on an annual basis for purposes of progress reviews and for final promotion consideration.

The promotion document "in progress" becomes the first section in such a portfolio.

> Most departments require a promotion document be submitted annually for review, starting in the first or second year of employment. Faculty can expect annual feedback about their progress towards attaining promotion and tenure. Assistant professors in their third year will receive a review and feedback from the college's Area Committee. Similar review and feedback may be provided for associate professors, upon request.

If a faculty member starts and diligently maintains the promotion portfolio or equivalent{ XE "Promotion portfolio" }, the preparation of the final promotion document will be greatly simplified. The promotion document then serves as a summary of their accomplishments that have been collected in their portfolio.

> The remainder of this section includes *Promotion Portfolio Hints* that will help candidates determine appropriate information for a portfolio.

PROMOTION DOCUMENT ORGANIZATION{ XE "Promotion documents:organization" }

The following elements and sections can be included in a promotion document{ XE "Promotion document" }.

1. Cover Page—President's Form 36{ XE "Promotion documents:President's Form 36" }{ XE "See *Promotion documents"* }

The **President's Form 36{** XE "Promotion documents:President's Form 36" **}{** XE "See Promotion documents" **}** becomes the first page of the document when a primary committee recommends a candidate for promotion. The department head usually completes this form. The Dean and Provost add information as the promotion document**{** XE "Promotion document" **}** moves forward through the promotion and tenure**{** XE "Tenure" **}{** XE "Criteria:tenure" **}** process (described in Section III of this handbook).

2. Candidate's Summary**{** XE "Promotion documents:Candidate's Summary" **}{** XE "Candidate's Summary" **}**

The **Candidate's Summary** is page two of the document. The summary should begin by clearly delineating the candidate's unique contribution to the field, for which she or he is showing promise of national or international recognition (in the case of Assistant Professors) or for which she or he has obtained national or international recognition (in the case of Associate Professors). Candidates are advised to work very closely with the department head and senior mentors for the crafting of this section.

For Clinical Faculty: This section should include a subheading titled *Clinical Job Description* that includes a summary of the job responsibilities of the clinical faculty member, i.e., the primary tasks they were hired to do.

This section may be written collaboratively between the department head and the faculty member. The aim of this section is to ensure that all committees reviewing the candidate are plainly aware of the departmentally defined responsibilities of the individual and position so that the candidate may be evaluated fairly.

3. General Information**{** XE "Promotion documents: General Information" **}{** XE "General Information" **}**

For most candidates, the **General Information{** XE "Promotion documents: General Information" **}{** XE "General Information" **}** section should be limited to two or three pages. The primary purpose is to introduce the candidate's work history, awards, certifications, and professional interests.

4. Scholarship of Learning, Discovery, and Engagement

This section provides an overview of the candidate's scholarship activities and describes the candidate's core research efforts.

5. Publications

This section lists all the publications of the candidate grouped by type.

6. Teaching and Learning Activities

This section provides details into the candidate's efforts and activities as it relates to teaching and learning.

7. Discovery Activities

> This section provides details into the candidate's efforts and activities as it relates to discovery.

8. Engagement Activities

> This section provides details into the candidate's efforts and activities as it relates to engagement.

9. Service Activities

> This section provides details related to those activities related to service within the college and the university, and for professional organizations or other external bodies where the activity is not considered engagement.

10. Letters of Evaluation

> Promotion requires peer reviews from external peers who can validate the candidate's national prominence and impact as a scholar.

Start each of the above sections on a new page.

COLLEGE OF TECHNOLOGY PROMOTION DOCUMENT STANDARDS

Each candidate for promotion will ultimately use a different subset of entries from the provided outline, as appropriate, in addition to other entries not specified as examples in the outline. All entries should be listed in continuous numerical order.

> In the years preceding formal nomination and consideration for promotion, it is recommended that **no category of the outline be permanently deleted**. Initially, each outline entry may be set to a default value such as "No achievements to report at this time." Consequently, as new professional accomplishments are realized, they can be added to the appropriate section and category.

Although there are no absolute size restrictions**{** XE "Promotion documents:size" **}**, consistent history suggests that document size be limited as follows.

Candidates for Associate Professor	20 pages	Page limits include the President's Form 36 cover sheet as well as the Candidate's Summary pages, but exclude any attachments and external evaluation letters.
Candidates for Professor	25 pages	

Chronological entries{ XE "Promotion documents:chronological entries" } (year only) in all sections should be cited as most recent first. The following is a sample list:

(1)	1998-present	American Society for Engineering Education
(2)	1997	Society for Manufacturing Engineers
(3)	1996-99	Association for Information Technology Professionals

Notice in the above sample that the first date in a range of dates determines its sequence in the list of chronological entries.

The document should be formatted as follows:

- Use 1" margins—top, bottom, left, and right.
- Use 12 point Times New Roman font (or equivalent). The only exception to this rule is for formatting tabular data (such as teaching evaluation scores).
- Use single-spacing.

Entries within any major section (e.g., E. Teaching and Learning Activities) should be limited to a maximum of three levels of hierarchy under the section title{ XE "Promotion documents:outline" }, with the first level specified with an Arabic number (with a boldfaced heading), the second with an alphabetic letter, and the third with an Arabic number within parentheses. For example:

3. Courses taught at Purdue{ XE "Instructional materials, citing" **}**

a. Courses taught in the last three years

(1) [insert course information]

REDUNDANCY{ XE "Promotion documents:redundancy in" } CAUTIONS

While the school recognizes that a specific accomplishment may be representative of more than one of the promotion criteria{ XE "Promotion criteria" }, it should only be cited in one section of the document. Duplicate entries can be misinterpreted as "padding the document," and influence evaluators to question the quantity or substance of the candidate's accomplishments. In such cases, cite the accomplishment in the section of the promotion document that contributes most to the candidate's case for promotion and tenure{ XE "Tenure" }{ XE "Criteria:tenure" }.

Under no circumstances should a single achievement ever be cited more than once in a document! For example, if a published paper was also presented at a conference, cite only the publication, not the presentation, to avoid any perception of duplication.

CONSISTENCY AND DUE CREDIT CAUTIONS{ XE "Mentoring" }

As part of the school's faculty mentoring initiatives, College of Technology faculty frequently team in curriculum development and scholarly activities. For this reason, publications and other achievements may legitimately be cited in multiple documents, possibly documents considered for promotion in the same academic year. It is exceedingly important that citations for the same publication or accomplishment be consistent, if not identical.

For example, citations of the same publication in different promotion documents should cite the same authors, in the same sequence, with the same level of participation or credit, and the same title, sources, and page numbers. In all cases, the sequence of author names must precisely match the sequence in the actual publication.

In some College of Technology courses, laboratory manuals or instructional materials have been developed over a cumulative number of years by many faculty and staff who have taught the course. All faculty and staff who have contributed should be cited as authors for such locally published publications, including those individuals who may no longer be employed by the college or university.

MENTORING{ XE "Mentoring" }

The role and value of mentoring cannot be underestimated. The college highly recommends that faculty identify mentors whom can be relied upon to provide useful, timely and candid feedback on a variety of relevant topics from career planning to document preparation. The motto most fitting with regard to mentoring is "start early, go often". It is recommended that regular counsel with senior faculty and department heads be done during preparation of promotion and tenure**{** XE "Tenure" **}{** XE "Criteria:tenure" **}** documents. Each department within the college maintains sample documents for review by faculty members. The department head should be consulted to review these sample documents.

DOCUMENT OUTLINE AND INSTRUCTIONS

The following pages outline each of the possible sections that may be included in a promotion document. The shaded boxes provide instructions and guidelines for completing the document.

SAMPLE PROMOTION COVER PAGE

(subject to revision on an annual basis)

President's Office Form 36

NOMINATION FOR PROMOTION **DATE:**

1	**FULL NAME:**	**Last**	**First**	**Middle Initial**					
2	Proposed Rank and Title:								
3	Present Rank and Title:				Year				
4	Previous Purdue University Rank(s) and Title(s):				Year				
					Year				
5	**Penultimate Year**	**(if applicable)**			**Year**				
6	**ACADEMIC RECORD (Institutions Attended)**								
	Degree	Year			Years Attended				
7	**BASIS OF NOMINATION - EMPHASIS OF SCHOLARSHIP** (one or more areas may be checked)								
	Discovery								
	Learning								
	Engagement								
8	**PRIMARY COMMITTEE VOTES**				**Yes**		**No**		
9	Comments by Head of Department (or School)								
	Yes o No o Signature:								
10	**AREA COMMITTEE VOTE**				**Yes**		**No**		
11	Comments by Dean and/or Chancellor (for Regional Campuses)								
	Yes o No o Signature:								
12	**UNIVERSITY COMMITTEE VOTE**	**Yes**		**No**		**Recommended**	**Yes**		**No**
13	*SPACE RESERVED FOR NOTES BY MEMBERS OF UNIVERSITY COMMITTEE*								
	Add other pages as needed; see instructions.								

MATERIAL PREPARED BY THE CANDIDATE

A. SUMMARY STATEMENT

The Candidate's Summary{ XE "Promotion documents:Candidate's Summary" }{ XE "Candidate's Summary" } immediately follows the President's Form 36{ XE "Promotion documents:President's Form 36" }{ XE "See Promotion documents" }, and precedes the General Information{ XE "Promotion documents: General Information" }{ XE "General Information" } section. The candidate must use a narrative format and it is restricted to two pages. Using the third person, candidates should tell the story of how their scholarship{ XE "Scholarship" }{ XE "Scholarship" } and activities{ XE "Service" }{ XE "Service" } fulfill the expectations of promotion—potential for or achievement of national prominence and impact. For full professor candidates, the narrative should initially describe on what basis the candidate is nationally prominent or has achieved national impact. Subsequently, the narrative should focus on those activities and accomplishments that substantiate the claim of national prominence or impact. It should also describe the value of their intramural contributions as faculty members.

Note that the summary should be written to reinforce the consistent growth and increased recognition that is the basis for all promotions. In other words, write a statement that exhibits a history, flow, and a pattern of professional growth and achievement. The summary should define the candidate and communicate the candidate's contribution to his/her department, the college, the university, the discipline(s), and society

For Clinical Faculty: Include a subheading titled *Clinical Job Description* that includes a summary of the job responsibilities and the primary tasks of the clinical faculty member. This section may be written collaboratively between the department head and the faculty member. The aim of this section is to ensure that all committees reviewing the candidate are plainly aware of the departmentally defined responsibilities of the individual and position so that the candidate may be evaluated fairly.

B. GENERAL INFORMATION{ XE "Promotion documents: General Information" }{ XE "General Information" }

Start this section on a new page.

The General Information{ XE "Promotion documents: General Information" }{ XE "General Information" } section must be included in all documents. For most candidates, the General Information section should be limited to two or three pages. The primary purpose is to introduce the candidate's work history, awards, certifications and registrations,{ XE "Professional association" } and professional and academic interests.

B.1 { XE "Academic appointments, citing" }Name

B.2 Degrees

B.3 Positions at Purdue

B.4 Positions at other institutions or organizations

B.5 Licenses, registrations, and certifications

List only currently active licenses, registrations, or certifications, or those that are directly relevant to the candidate's area of expertise. Graduate faculty certification**{** XE "Graduate faculty certification" **}{** XE "Professional certification" **}** should not be listed.

Promotion Portfolio**{** XE "Promotion documents:Promotion Portfolio" **}{** XE "Promotion Portfolio" **}** Hint: Include copies of the licenses, registrations, and certifications in the portfolio.

a. Date, name of license, registration, or certification, and if applicable, any recertification dates**{** XE "Professional certification" **}**
(Optional: brief description of certification process or significance)

B.6 Honors and awards

Include any relevant awards or honors not cited elsewhere in the document. Do not include teaching awards in this section.

Promotion Portfolio Hint: Include documentation of the award or honor in the portfolio.

a. Date, award, awarding agency
(Optional: brief description of significance)

B.7 Memberships in academic, professional, and scholarly societies

C. SCHOLARSHIP OF LEARNING, DISCOVERY, AND ENGAGEMENT

C.1 Candidate's statement reflecting on his or her scholarship

D. PUBLICATIONS

It is extremely important to use APA citation**{** XE "Publications:APA citation" **}{** XE "APA citation" **}** style [1] and conventions. See Appendix B for additional detailed information regarding:

- Determining Source Quality
- Documenting Scholarly Work for promotion and tenure

Promotion Portfolio**{** XE "Promotion documents:Promotion Portfolio" **}{** XE "Promotion Portfolio" **}** Hint: Include samples of published materials, book covers, tables of contents, advertising brochures, journal**{** XE "Publications:journal" **}** article**{** XE "See Publications" **}** reprints, etc. in the binder.

[1] In *Publication manual of the American Psychological Association* (6th ed.). (2009). Washington, DC: American Psychological Association. Refer to pages 193 – 224.

D.1 Optional summary paragraph on the nature of the publications

D. 2. Full articles in refereed journals

D.3 Short communications, letters, notes or briefs in refereed journals

D.4 Conference or symposium proceedings

D.5 Conference summaries or abstracts

D.6 Editor of refereed journal

D.7 Books

Custom published textbooks, workbooks, and other instructional materials may be published by national or regional publishers but they are subjected to little or no external peer review. This differentiates them from more traditional, mass-produced works of a similar nature. Custom published works are frequently published for and by a specific Purdue course and instructor; however, they may be adopted or further customized for other educational institutions. Custom published works are frequently stepping-stones to more traditional published works after they are subjected to a more rigorous developmental edit and external peer review process.

It is extremely important to cite all co-authors**{** XE "Publications:Co-authors, citing" ***}***, including graduate students, and to list the authors in the same sequence they were cited in the actual publication.

D.8 Chapters in books

D.9 Book reviews

D.10 Government, university, industrial reports and standards

D.11 Publications in trade journals

D.12 Publications in popular press/magazines

D.13 Invited publications and scholarly presentations

Invited presentations**{** XE "Presentations" **}** are considered especially distinctive and should be so noted. The term "invited" means that a personal invitation was extended based on the presenter's unique expertise or credentials. It does not include responses to a "call for papers" or a "call for participation."

Presentations of papers cited elsewhere in the document should not be cited here to avoid the perception of redundancy. In such cases, a publication takes precedence over its presentation.

Include competitively selected workshops**{** XE "Workshops" **}** and panel participation at conferences.

Especially distinctive citations may include a brief annotation to that effect. This should not be overdone.

Promotion Portfolio**{** XE "Promotion documents:Promotion Portfolio" **}{** XE "Promotion Portfolio" **}** Hint: Include copies of programs or flyers in the binder.

D.14 Other submitted publications and editorial contributions

E. TEACHING & LEARNING ACTIVITIES

E.1 Candidate's own statement of contributions to learning

E.2 Curricular innovations such as new programs, minors, courses, etc.

E.3 Courses taught at Purdue

E.3.a Courses taught in the last three years

(1) Semester, year

(2) Course number, course title, number of sections, enrollment

> Current courses should be listed first. Significant independent study courses should be deferred to "Contributions to Curriculum and Course Development."
>
> Continuing education, industry training, and other life-long learning courses should be deferred to the Engagement Activities section of the promotion document.

E.3.b Other courses taught at Purdue

> For courses taught prior to the above three-year window.

(1) Course number, title, years taught

E.3.c Courses taught at other institutions while Purdue faculty

(1) Course number, title, institution, location; years taught

E.4 Teaching scores summary table

> Candidates must provide instructor evaluation data for the past three years to demonstrate their performance in the classroom. Preface the data with an explanation of the evaluation instrument, evaluation process, and evaluation scale.
>
> All courses should be consolidated into a single table. Smaller fonts can be used to minimize the physical size of the table. Each offering of each course should be included in a separate column—do not consolidate multiple courses into a single column. Different semester offerings of the same course should be in adjacent chronological columns for easy comparison. Multiple sections of the same course should be consolidated into a single column. If lab sections are evaluated separately from lectures, the table below can be copied and lab scores entered in the table.

The number of items to be included in the teaching evaluation is determined by the expectations of each department's primary committee. The college's area committee expects to see more than the university core items. Some primary committees may require that copies of instructor evaluations be in the binder.

The following spreadsheet format**{** XE "Promotion document:formatting" **}{** XE "Promotion document:format" **}** is to be used to summarize instructor evaluation. Smaller fonts are typically used in the table to conserve space. Do not group multiple courses into any column. Report multiple semesters, from oldest to newest dates, for a single course in adjacent columns (as suggested in the template). Do not include your averages for questions, courses, or semesters since averages of averages are statistically irrelevant.

For departments that provide average scores for a particular course or course category, you should report department averages. In this case, include a statement identifying what is included in the averages.

Note: per university policy, courses with less than 5 students enrolled do not participate in an evaluation. Courses with less than 5 students should not be listed in the table below.

Course number(s) taught	COT 101	COT 101	COT 101	COT 202	COT 303	COT 303
Semester and year	Sem/yr	Sem/yr	Sem/yr	Sem/yr	Sem/yr	Sem/yr
Total Number of respondents/Enrollment	# #	# #	# #	# #	# #	# #
Individual or department question 1	score	score	score	score	score	score
Individual or department question 2	score	score	score	score	score	score
Individual or department question 3	score	score	score	score	score	score
Individual or department question 4	score	score	score	score	score	score
Individual or department question 5	score	score	score	score	score	score
...						
University core Question 1			score			score
University core Question 2			score			score

E.5 Undergraduate special projects directed

E.6 Short courses, workshops, guest lectures and seminars delivered

E.7 Courses significantly modified at Purdue

E.8 Global initiatives in learning

E.9 Grants and contracts related to learning

Examples of instructional grantsmanship include projects funded by industry, corporate foundations, and agencies such as NSF, CCLI, and IHETS.

E.9.a Agency/Title of Grant (Use the form found in Appendix C for your document)
Duration of funding (Dates):
Total amount of award:

Candidate's role:
If Co-PI or Researcer, total funding for which candidate is directly responsible:

Examples of correctly formatted grants. First example is for an agency funded grant. Second example is for an industry funded grant.

Agency/Title of Grant:	NSF: Widgets of the World
Duration of funding:	Three (3) years (1993-1996)
Total amount of award:	$180,000
Candidate's role:	PI

If co-PI, total funding for which candidate is directly responsible: NA

Agency/Title of Grant:	Beans for the Masses
Duration of funding:	Five (5) years (1993-1996)
Total amount of award:	$5 million
Candidate's role:	Co-PI

If Co-PI or Researcher, total funding for which candidate is directly responsible: $1 million

E.10 Donations received to facilitate learning

Examples of correctly formatted gifts.

Description of Gift:	Biotechnology Spectrometers
Date of Gift:	Fall 1998
Total value of gift:	$475,305
Candidate's role:	Sole solicitor. Negotiated curriculum integration expectations for this gift.

If co-solicitor, total funding for which candidate is responsible: NA

Description of Gift:	Women in Technology scholarships
Date of Gift:	2003-2007
Total value of gift:	$250,000 total (≈ $50,000 per year)
Candidate's role:	Principal solicitor and initiative manager.

If co-solicitor, total funding for which candidate is responsible: $175,000

NOTE: Do not include gifts secured but never integrated in the curriculum.

E.11 Contributions to learning space development

Examples of significant contributions to laboratory development**{** XE "Instructional materials:laboratories" **}{** XE "Laboratory development" **}** include: 1) laboratory apparatus designed, constructed, and installed; 2) instructional equipment gifts, grants, and awards (include name of benefactors and the value of the gifts and grants); and 3) laboratory proposals submitted but not [yet] funded.

In cases where multiple individuals were responsible for a laboratory grant**{** XE "Instructional materials:laboratories:grants" **}{** XE "Laboratory development:grants" **}** or gift**{** XE "Instructional materials:laboratories:gifts" **}{** XE "Laboratory development:gifts" **}**, all responsible individuals must be credited and the candidate's specific role should be explained. The order of listing of individuals' names must be consistent with the original document.

Promotion Portfolio{ XE "Promotion documents:Promotion Portfolio" }{ XE "Promotion Portfolio" } Hint: Include gift{ XE "Instructional materials:laboratories:gifts" }{ XE "Laboratory development:gifts" } and loan reports, proposals, grant{ XE "Instructional materials:laboratories:grants" }{ XE "Laboratory development:grants" } documentation, or other relevant documentation in the binder.

E.12 Other significant contributions on teaching and learning

F. DISCOVERY ACTIVITIES

F.1. Candidate's own statement of contributions to discovery

F.2 Discovery programs underway

F.3 Ph.D and M.S. thesis and directed project committees, chair or member

F.4 Graduate or undergraduate student research mentoring

F.5 External grants and contracts awarded

F.5.a Agency/Title of Grant
Duration of funding:
Total amount of award:
Candidate's role:
If co-PI, total funding for which candidate is directly responsible:

Examples of correctly formatted grants. First example is for an agency funded grant. Second example is for an industry funded grant. Use this formatting guideline for Sections F5 through F8.

Agency/Title of Grant:	NSF: Bioengineering Technology Literacy
Duration of funding:	Three (3) years (1993-1996)
Total amount of award:	$180,000
Candidate's role:	PI

If co-PI, total funding for which candidate is directly responsible: NA

Agency/Title of Grant:	Acme Satellite, Inc.: Teaching High Definition Television Technologies in Computer Graphics Technology
Duration of funding:	Two (2) years (2001-2003)
Total amount of award:	$725,000
Candidate's role:	Co-PI

If co-PI, total funding for which candidate is directly responsible: $450,000

F.6 Internal grants and contracts awarded

F.7 Submitted proposals (in review)

F.8 Unfunded proposals

F.9 U.S. and international patents awarded

F.10 U.S. and international patents submitted

F.11 Contributions to technology transfer

F.12 Donations received to facilitate discovery

F.13 Contributions to discovery space development

F.14 Global initiatives in discovery

F.15 Other significant contributions to discovery

G. ENGAGEMENT ACTIVITIES

College of Technology candidates for promotion are expected to share their knowledge and expertise with others. The nature of the engagement**{** XE "Service" **}{** XE "Service" **}** activity will necessarily be very diverse, but typically involves external partners such as industry, PreK-18 educational institutions, professional association**{** XE "Professional association" **}**s, government or other outside agencies and groups.

Candidates should carefully consider whether activities belong under Engagement Activities, Service Activities, or another section of the document. Activities reported in this section must not be reported in other sections of the document.

In view of the university's and college's emphasis on the importance of Engagement, for those candidates basing their promotion solely or partially on Engagement, this section should provide substantial documentation of the **impact** of these engagement activities. This documentation of this impact should be segmented according to the beneficiary of the impact. (i.e., Classroom/courses, department, college, university, corporation or organization, or government agency).

This section should also contain citations for activities related to the **scholarship of engagement**. For example, information regarding activities that led to conference proceedings, journal articles, technical reports related to engagement should be cited here to clarify their purview.

G.1 Candidate's own statement of contributions to engagement

G.2 Technical Assistant Program activities

G.3 Faculty internships

G.4 Short courses and workshops

G.5 Engagement grants and contracts

G.5.a Agency/Title of Grant
Duration of funding:
Total amount of award:
Candidate's role:
If co-PI, total funding for which candidate is directly responsible:

Examples of correctly formatted proposals and grants. First example is for an agency funded grant. Second example is for an industry funded grant.

Agency/Title of Grant:	NSF: Bioengineering Technology Literacy
Duration of funding:	Three (3) years (1993-1996)
Total amount of award:	$180,000
Candidate's role:	PI

If co-PI, total funding for which candidate is directly responsible: NA

Agency/Title of Grant:	Acme Satellite, Inc.: Teaching High Definition Television Technologies in Computer Graphics Technology
Duration of funding:	Two (2) years (2001-2003)
Total amount of award:	$725,000
Candidate's role:	Co-PI

If co-PI, total funding for which candidate is directly responsible: $450,000

G.6 Consulting arrangements

G.7 Invited presentations

G.8 Other industry interactions

G.9 Diversity and climate activities

G.10 Outreach activities

G.11 Appearances in media interviews and other coverage

G.12 Donations received to facilitate engagement

G.13 Other major engagement activities

H. SERVICE ACTIVITIES

Service activities are an expectation for all faculty. The nature of the service**{** XE "Service" **}{** XE "Service" **}** activity will necessarily be very diverse, but typically falls into three distinct categories. These are service**{** XE "Service" **}{** XE "Service" **}** to the department, college, and university; professional association**{** XE "Professional association" **}**s; and other outside agencies and groups. College of Technology candidates for promotion are expected to contribute to the management and operation of the university and its units, and representing the university to the public. Candidates also have a responsibility to others in their profession which can be met through service to appropriate professional associations.

Candidates should include only the activities in this section that are not reported in other sections of the document.

As with Engagement Activities, this section should provide documentation of the impact of the Candidate's service activities, whenever possible.

H.1 Candidate's own statement of contributions to service

H.2 Committee assignments in the department, college, and/or university

H.3 Administrative duties at Purdue

H.4 Leadership in professional societies or organizations

H.5 Service to government or professional organizations

H.6 Diversity and climate activities

H.7 Mentoring of faculty

H.8 Mentoring or advising of students (individuals or organizations)

H.9 Other major service activities

LETTERS OF EVALUATION

A. Reviewers External to the University (*start this section on a new page)*

A.1 List of all external reviewers solicited for an evaluation and brief background information

A.2 Letter to external reviewer

B. SUPPLEMENTAL LETTERS (optional)

SECTION IV

PROCEDURES FOR CONSIDERATION OF PROMOTION AND TENURE{ XE "TENURE" }{ XE "CRITERIA:TENURE" }

A great deal of work, achievement, and professional career progress review takes place during the years preceding a recommendation for promotion and/or tenure{ XE "Tenure" }{ XE "Criteria:tenure" } by a Primary{ XE "Promotion committee:Primary" }{ XE "Primary committee" } Committee{ XE "Committee" }. A recommended procedure commonly used by departments of the College of Technology which provides regular feedback to the faculty member from the peer review{ XE "Peer review" } process is shown schematically in the following flowcharts.

It is important that a new faculty member, at the time of appointment, establish a personal plan for professional development{ XE "Instructional materials:laboratories" }{ XE "Laboratory development" }, scholarly endeavor, and excellence in teaching{ XE "Teaching:Excellence in" }{ XE "Criteria:Teaching" }{ XE "Teaching, excellence in" }. All candidates should prepare their document in consultation with their Department Head and/or senior faculty mentors.

It is very important that faculty members prepare a promotion document{ XE "Promotion document" } during their first year of employment and update it annually. Each academic department has specific deadlines for submission of updated documents for the purpose of progress and contract renewal review.

When faculty members' achievements warrant review by their Primary{ XE "Promotion committee:Primary" }{ XE "Primary committee" } Committee{ XE "Committee" } for recommendation regarding promotion and/or tenure{ XE "Tenure" }{ XE "Criteria:tenure" }, evaluation of achievements is made through codified policies and procedures of the university that govern this review process. Faculty should also review the current Office of the Provost memo regarding West Lafayette Campus Promotions Policy which outlines Criteria for Promotion as well as the Faculty Review System.

Figures are provided in Section IV to highlight and graphically represent the chronology and decision making of this review process.

Before or during the first semester of each academic year, the head of each school, division, or department shall convene the primary committee, which is to consist of all tenured full professors and all tenured associate professors in the respective departments. Tenured associate professors discuss and vote upon promotion up to and including the associate professor level. The department head shall act as chair of the primary committee.

In case of promotions to full and associate professor where there are departments with fewer than five tenured full professors, including the department head, in order to meet this minimum number additional tenured full professors shall be appointed by the

chair of the area committee (usually the dean) to which the primary committee reports, following consultation with the appropriate department head. Persons who are in their penultimate probationary year (year 6 for assistant, year 3 for associate, and year 2 for full professors) shall be automatically nominated for promotion and voted on by the primary committee, unless they specifically request otherwise in writing at any step in the process. Persons also may be nominated for promotion by any member of the primary committee. Those whose nominations are seconded shall be voted on by the committee. Persons with tenure who are not nominated by a member of the primary committee but, nevertheless, consider themselves ready for promotion may nominate themselves and have their cases for promotion considered by the primary committee, if they have not been considered for promotion during the last three years. **Review of candidates in the final year (**year 7 for assistant, year 4 for associate, and year 3 for full professors**) of their probationary period requires prior approval by the Provost.**

It is expected that each chair of a primary committee should, during the first month of each fall semester, publish a timetable setting forth the dates of the primary committee meetings and suitable deadlines for faculty members to update their files and to receive and react to the appropriate parts of a nomination for promotion. A potential candidate for promotion to associate professor or professor typically would be notified in the spring semester to refine his/her promotion document so external reviews can be completed early in the subsequent fall semester.

The promotion and tenure process in the College of Technology across all departments will adhere to the following deadlines:

Third Monday in April	Primary Committee decision finalized concerning external review. If penultimate year, external review by default.
First Monday in May	Faculty submits potential names for external reviewer candidates to department head for consideration.
First Monday in June	Department head finalizes list of external reviewers and notifies the dean of the department's candidates and their associated reviewers.
First Monday in July	Department heads sequester external reviews using college template.
First Monday in September	Candidate documents modified for change of status, grammar, spelling or format changes.
First Monday in October	Primary committee meeting and vote completed. Candidate documents completely frozen.
First Monday in November	Promotion documents and portfolios due to Dean's Office electronically. Documents remain frozen - no changes.

First Monday in December	Area Promotions committee meeting and vote completed. Documents remain frozen – no changes.

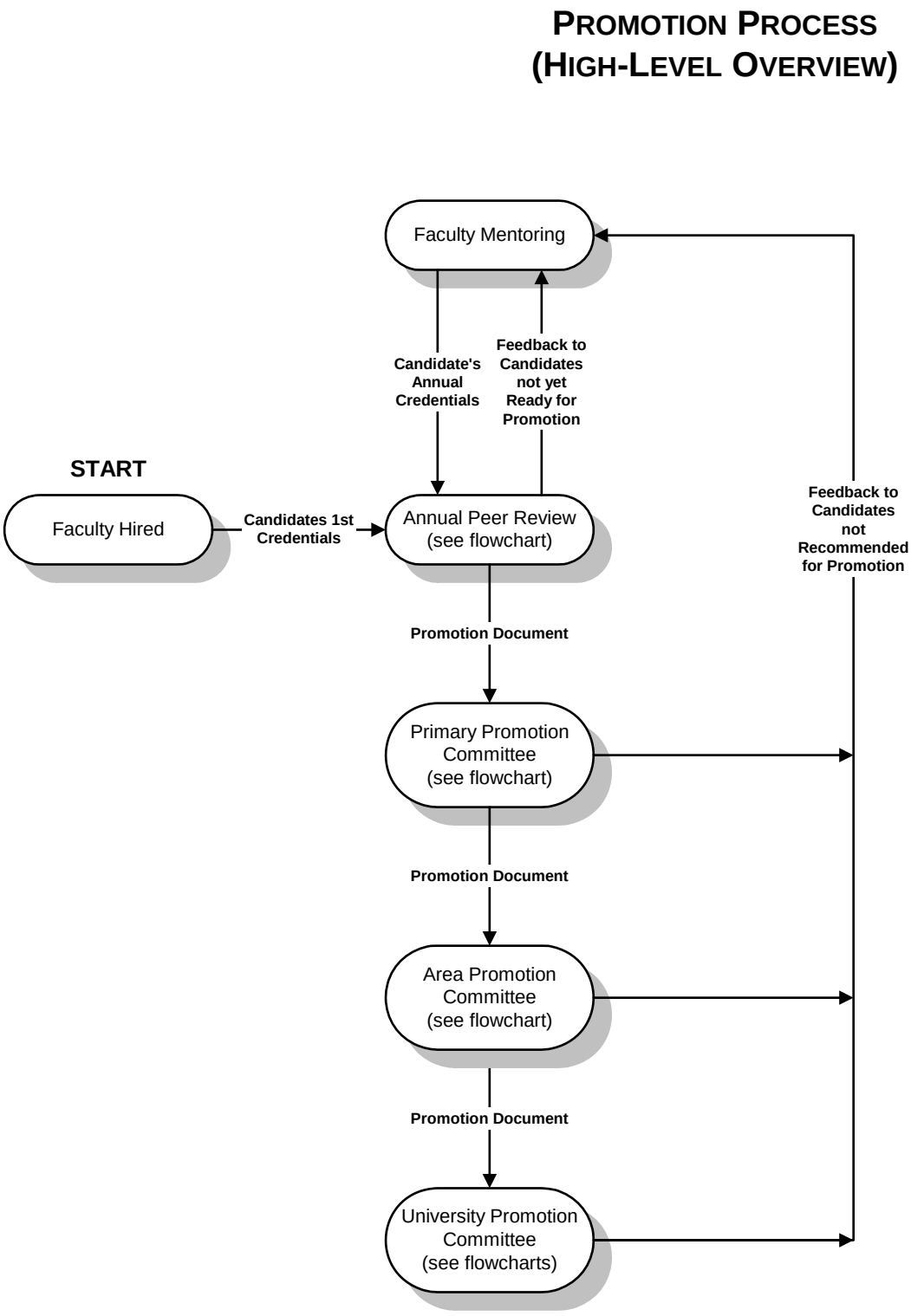

Figure 1. High-level overview of the promotion process{ XE "promotion process, high-level overview" **}**

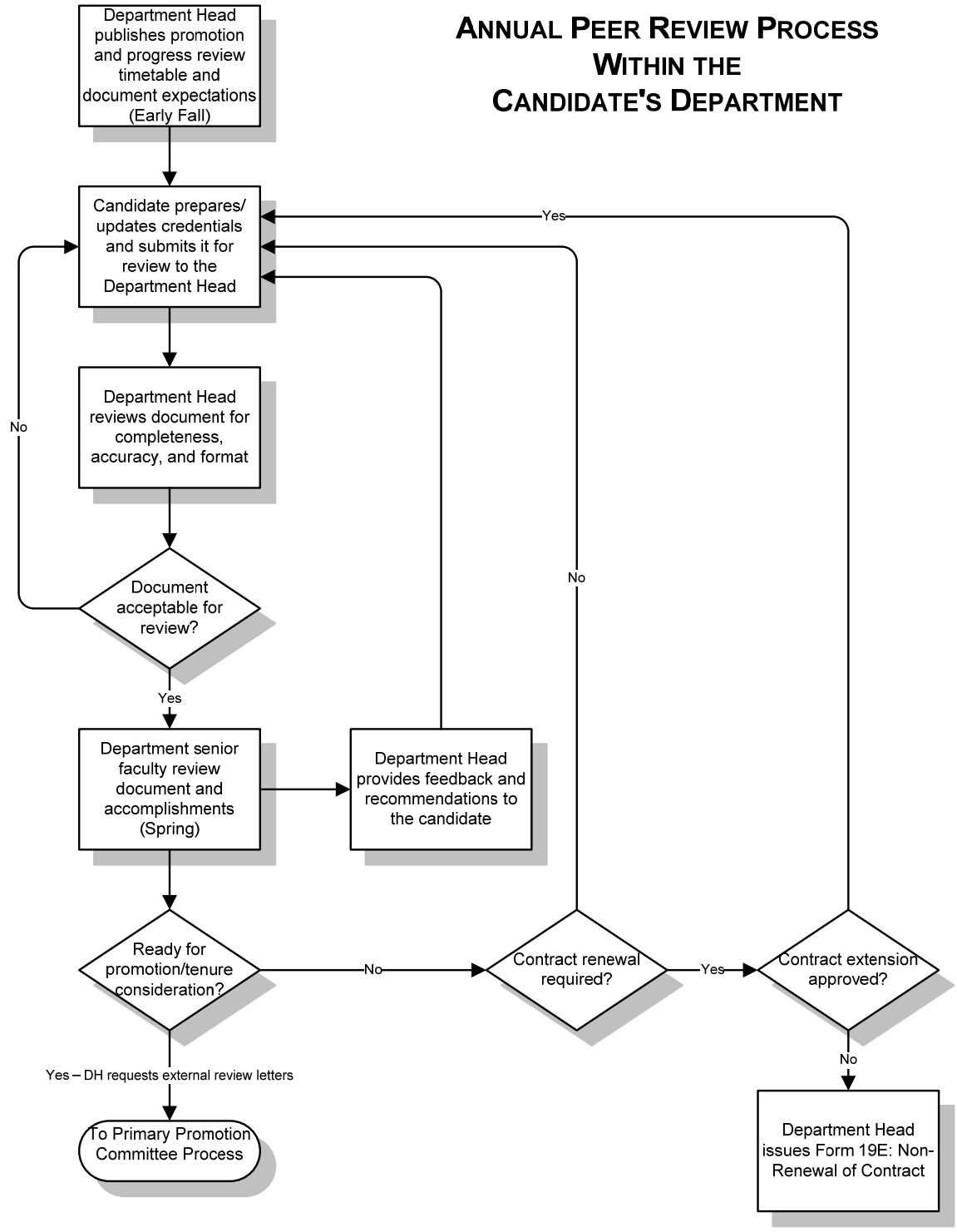

Figure 2. Annual peer review{ XE "mentoring" **} process within the candidate's department**

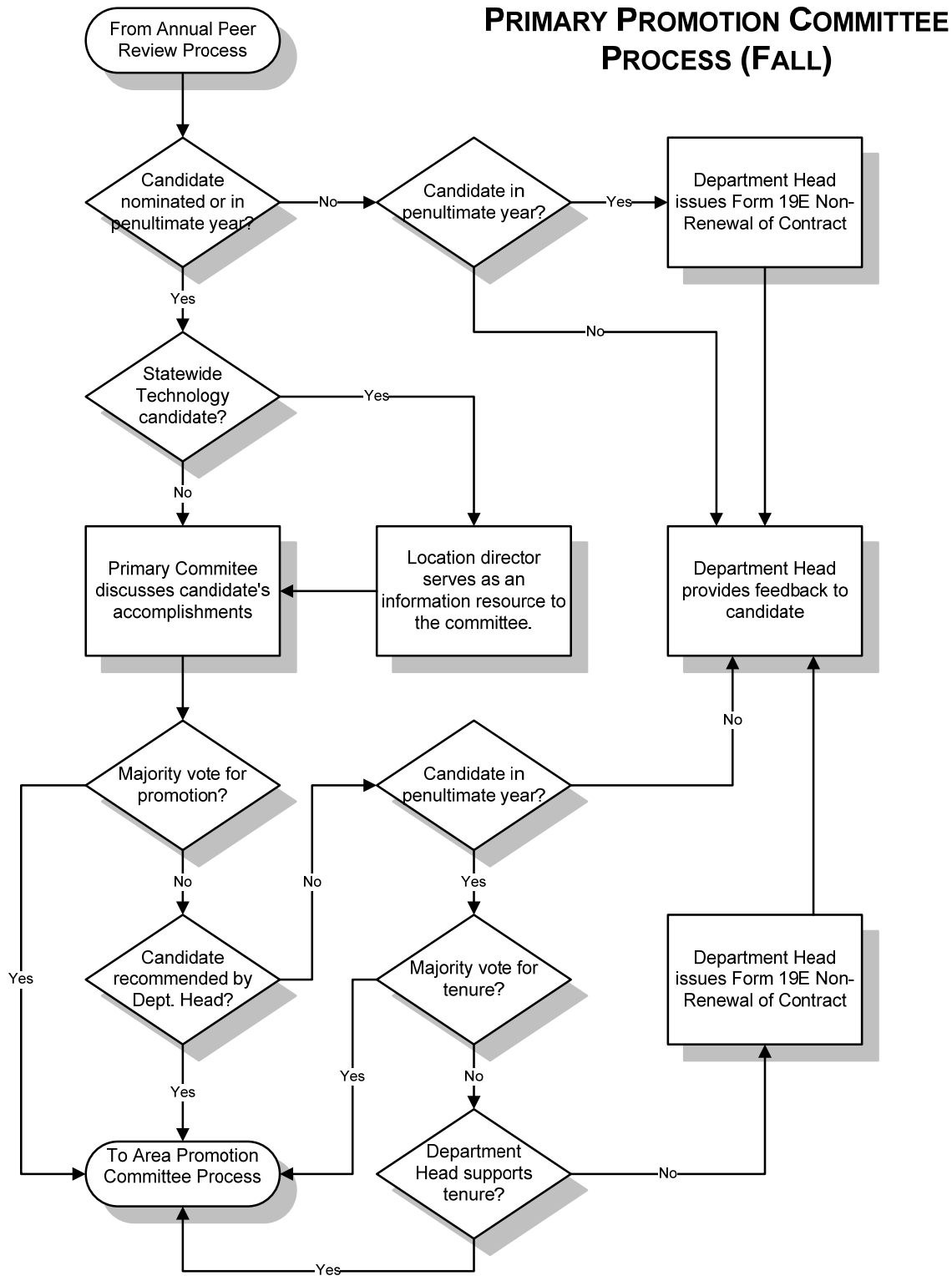

Figure 3. Primary{ XE "Primary promotion committee" **} Committee process**

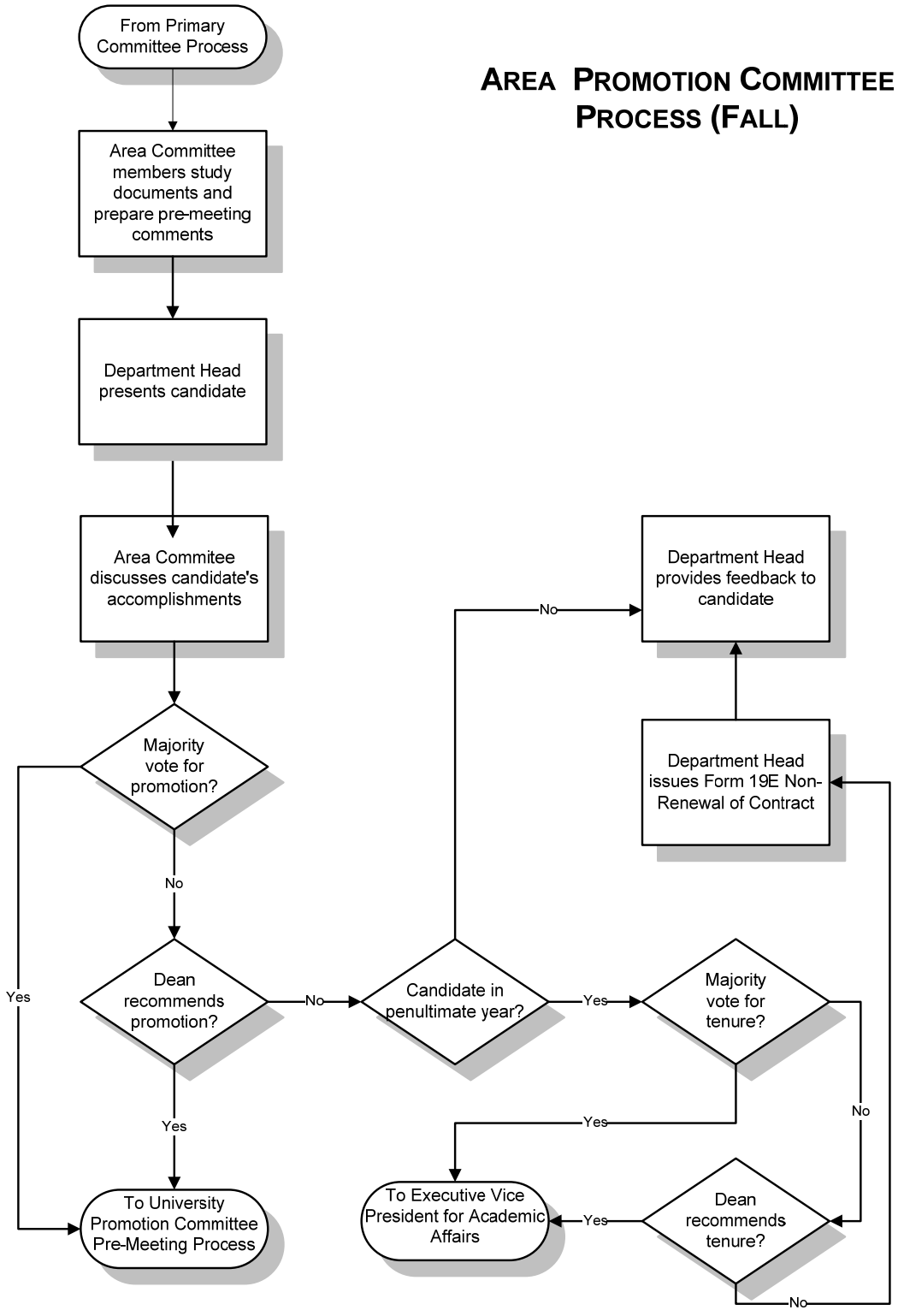

Figure 4. Area{ XE "Area promotions committee" **} Committee process**

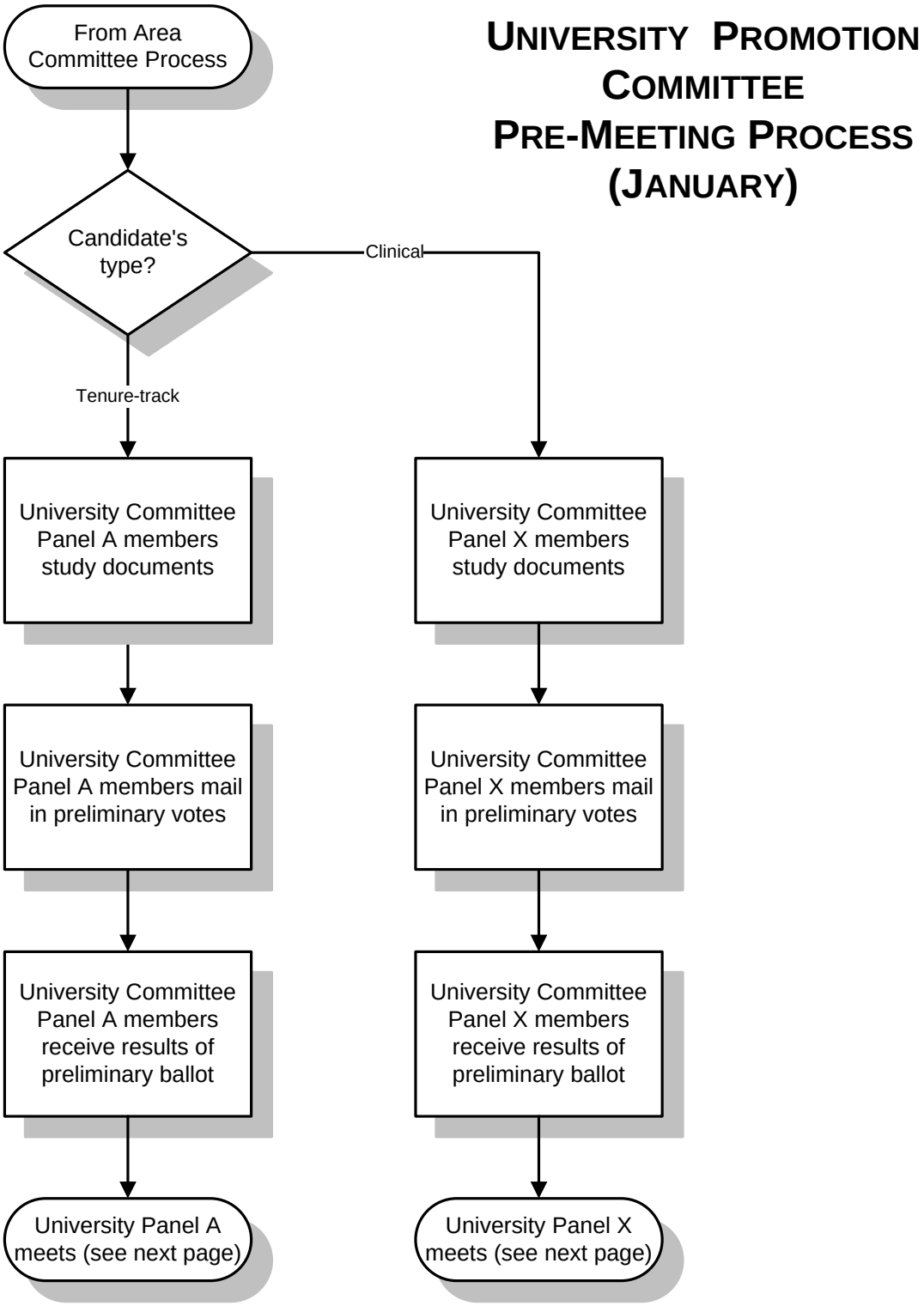

Figure 5. University Committee{ XE "University Committee" } pre-meeting process

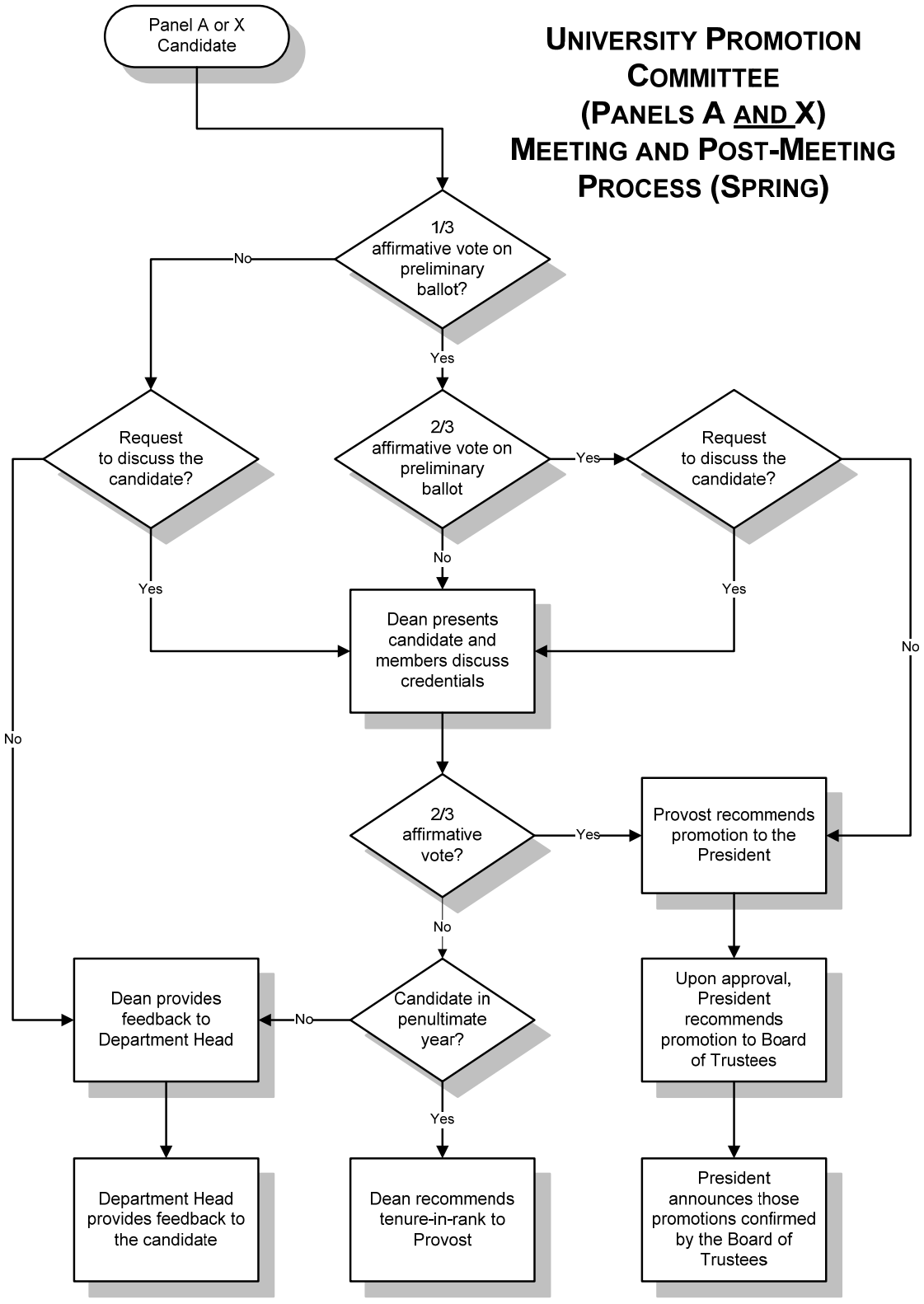

Figure 6. University Committee{ XE "University Committee" } meeting and post-meeting process

APPENDIX A: RESEARCH DEFINED FOR THE COLLEGE OF TECHNOLOGY

There are unique aspects of the College of Technology that include its role and methods engaged in discovery. The scholarship of discovery involves the discovery, learning, collection, interpretation, integration, or application of theories and/or facts about a particular subject; and, creation of new and original works or applications of knowledge. Scholarship of discovery can be conceptualized as a continuum from pure basic research, through to applied and action research. In the book, *Pasteur's Quadrant*, Stokes discusses pure basic research in contrast to use-inspired basic research and pure applied research. The model outlined by Stokes is depicted in Figure A1.

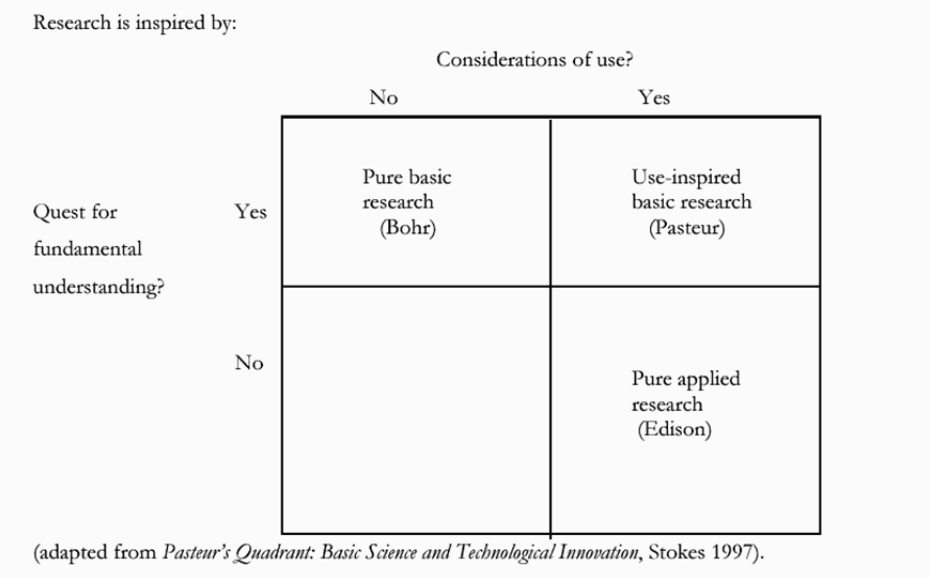

Figure A1: Pasteur's Quadrant

Much pure research is undertaken without regard for use or application. A classic example is the work of Niels Bohr work in physics on the structure of the atom; this type of research is classified as *pure basic research* by Stokes. Pasteur's work is an example of the rise of a new scientific discipline, microbiology, in the late 19th century that was a new branch of inquiry created out the effort to cure diseases and not only for the quest for fundamental understanding. This is an example of *use-inspired basic research*.

Research that is the furthest removed from pure basic research is the type that was undertaken by Thomas Edison. Edison's classic work on finding a filament for a light bulb is an example. Edison had no desire to understand the science underlying his discovery to make a working light bulb. In fact it was left to other scientists to consider its more fundamental implications for the Edison Effect which eventually led to a Nobel prize for Rosenberg and Thompson for discovering the electron. Edison's research can be categorized as *pure applied research*. A great deal of modern research belongs in this

category and is extremely sophisticated although narrowly targeted on immediate applied goals.

Pasteur's Quadrant Model of Scientific Research can be modified to represent the more dynamic nature of research and the interaction that can occur among pure basic research, use-inspired research, and pure applied research. Stokes (1997) proposed such a model and it is represented in Figure A2. This model addressed the clear need to represent the dual, upward path as interactive but semiautonomous. Science often moves from existing to a higher level of understanding through pure research where technology has little influence. Technology often moves from an existing to an improved capacity by narrowly targeted research, or by engineering or design changes, or by simple tinkering at the bench, where science has little influence. However, each of the paths is at times generally influenced by the other, and this influence can move in either direction, with use-inspired basic research often serving as the connecting role.

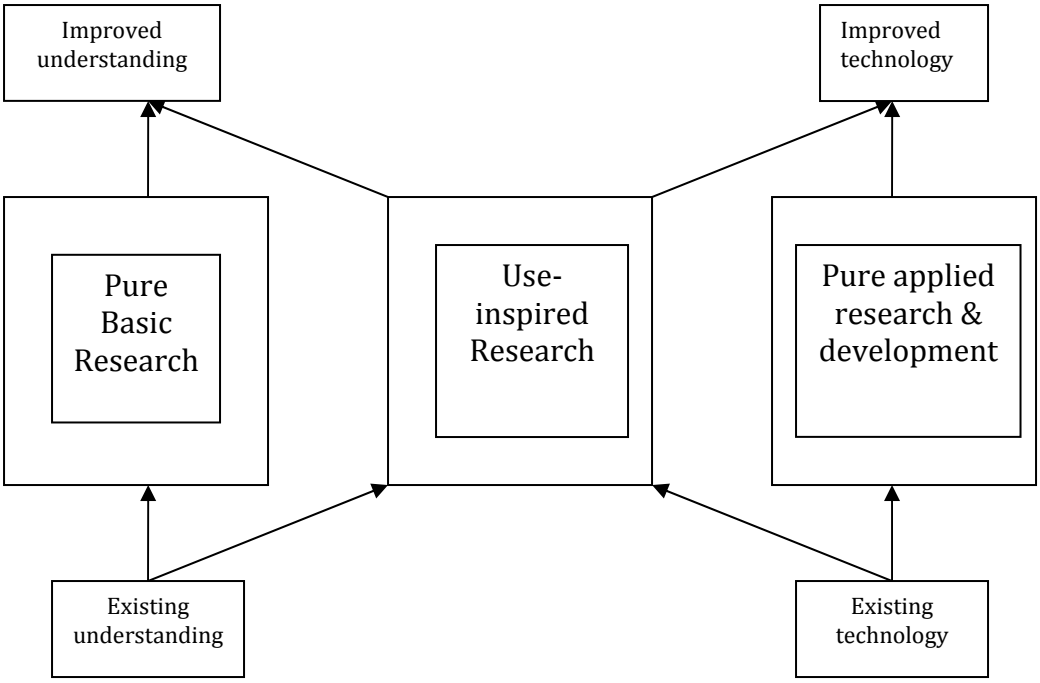

Figure A2: A Revised Dynamic Model of Scientific Research

Very rarely would technology faculty directly engage in pure basic research although technology faculty could have a very important supporting role, such as providing the underlying information technology infrastructure to collect and analyze data produced through an experiment or computer simulation or through improved instrumentation used to collect and analyze scientific data. Use-inspired basic research is undertaken to understand fundamental laws and principles but the inspiration of such research is not to create new knowledge but "to solve practical problems". This particular domain of research is shared with many other disciplines, such as engineering and science, but there will be overlap at times that provides opportunities for collaboration. Pure applied

research is furthest removed from pure basic research and is characterized as being extremely sophisticated and narrowly focused on immediate results. Technology's role in research is primarily focused on pure applied research but there is some overlap with other disciplines including engineering and science, which also offers additional opportunities for collaboration.

So what roles in research should faculty and students in the College of Technology pursue? When looking at Pasteur's Quadrant or the Revised Dynamic Model, it is apparent that the faculty and students in Technology should be focused on research that falls within use-inspired basic research (Pasteur) and pure applied research (Edison). These types of research are important, significant, and have great value in our society. These types of research are inspired for a *practical* end, which aligns with *technology* as a discipline. Faculty in Technology will engage in many activities related to learning, discovery, and engagement that will result in scholarship opportunities.

Stokes, D. E. (1997). *Pasteur's quadrant: Basic science and technological innovation.* Washington DC: Bookings Institution Press.

APPENDIX B: DETERMINING SOURCE QUALITY AND DOCUMENTING SCHOLARLY WORK FOR P&T

This appendix is intended to provide common definition and understanding for faculty about selection of journals and conferences to which they might consider submitting as well as a common means for documenting work in P&T documents.

Source Quality

Quality of sources is based upon the level of independent review that is conducted before the contribution is published, how much of the contribution is reviewed, as well as other factors about the publication including monetary issues, citation indices, impact factor, and acceptance/rejection rates.

Refereed Versus Reviewed Publications

One of the foremost things one should look at relative publications is whether the publication is a refereed publication or a reviewed publication. A ***refereed publication*** is one in which the author must submit the article in its entirety before it is considered for publication. A ***reviewed publication*** is one in which the author must only submit an abstract for it to be considered for publication. Typically in a reviewed publication, the abstracts are evaluated and, if accepted, the author then writes the remainder of the contribution and submits it for final publication. The final version of the document may or may not be reviewed before published.

Refereed publications are always stronger than reviewed because the reviewers see the entire contribution before making a decision to accept or reject it. Reviewed publications in their final form have a tendency to stray from the original intention or purpose that was communicated and reviewed in the abstract by the reviewers. In fact, reviewed conference proceedings have a tendency to only include the abstract that was submitted by the author, rather than a complete publication. This is usually because the author ran out of time to write the finished work, or for some other reason chose not to follow-through on the commitment to write the entire work.

An additional clarification is needed relative to refereed publications. Typically refereed publications are called ***single- or double-blind***. By default most refereed publications are single-blind, meaning the author removes her or his name and identifying references in the article before submitting the publication for review. In single-blind, the author knows who the list of reviewers is (even though the reviewers that have specifically reviewed her or his work may not be known). In a double-blind review process, reviewers are not known, specifically nor generally. Thus, double-blind, refereed publications are typically considered the highest quality publications.

A final issue relative to publications regards the term *invited publications*. There are numerous types of invited publications. The most prominent type of invited publication is the keynote invitation, that is, to be invited to be the premier presenter at a conference. In

regards to journal articles, an invited contribution would be the "showcase" article in the particular issue of the journal. Typically these are "special issue" or themed journals, where the issue focuses on a specific topic. In any event, faculty acknowledging invited publications should be cautious not to overstate or exaggerate the importance of their "invitation".

Monetary Issues

A common question amongst faculty is, "A journal wants to charge me a fee for the publication of my article. Is this common? Is this ok?" The answer is, "It depends." To reduce dependence on advertising (or to eliminate the need for it altogether), some publications charge a "page fee" or "publication fee." This is not uncommon. Once an author's article has been refereed or reviewed and deemed acceptable, the author may have to pay a fee to publish his or her work. Even some open-access or web-based publications charge a fee to support the maintenance and expansion of their web-distribution mechanism(s). Both of these seem to be common models.

Where payment becomes an issue is if the journal or conference charges a "review fee." Often review fees are one red flag that the journal or conference may be of low-quality and not a respectable place to publish (a.k.a., a for-profit publishing source). While a review fee alone is not a characteristic that should cause an author to avoid publishing in a particular source, it is something of which to take note.

Non-profit orientation

Most journals that are respected by academics and deemed worthy sources in which to publish are associated with non-profit organizations. When a journal is associated with a for-profit entity, the author should be wary and do more investigation into the background of that journal before submitting work for review to it.

Citation Indices (i.e., SSCI, SCI, AHCI, EI)

Citation indices are indexes between publications that allow one to ascertain which publications cite which publications. It gives the ability to determine the seminal works in a field (those that are more frequently cited). Common citation indices include the Social Sciences Citation Index (SSCI), Science Citation Index (CSI), Arts and Humanities Citation Index (AHCI), and the Engineering Index (EI).

The presence of a journal or conference proceedings in a citation index is a measure of the quality of the publication. If a journal or conference proceedings is not listed in one of these indices (note that there are other respected citation indices not listed here), it is another red flag.

Acceptance/Rejection Rates

One of the biggest telling factors of the quality of a journal or conference is the acceptance or rejection rates. Acceptance rate is the ratio of accepted contributions divided by the total number of contributions submitted for inclusion. Rejection rate is the ratio of

rejected contributions divided by the total number of contributions submitted for inclusion.

Most respectable publications disclose either acceptance or rejection rates annually. If the ratio is not released, authors should inquire with the editor of the journal (or chair of the conference) before submitting works for consideration for publication. Frankly, journals with greater than 50 percent acceptance (or less than 50 percent rejection) are places one would NOT want to publish.

Impact Factor

Impact factor (or journal impact factor) is the average number of citations made to articles within a certain publication. Impact factor (or IF) is an important (but sometimes controversial) metric for the quality of a journal or of a publication.

Evaluating Questionable Journals and Conferences

Throughout the preceding sections, this document has attempted to acknowledge earmarks of high quality publishing sources. As noted, the fact that a conference or journal is missing one of these earmarks should not make one assume it is a low-quality source. However, when a publication has several of them, it should stop the author and make her or him question whether she or he should publish in that source. Additional "red flags" include:

- Journals or conferences that acknowledge that they accept papers rejected elsewhere.
- Journals or conferences that accept auto-generated papers.
- Journals or conferences that have been blacklisted as predatory by sources such as http://scholarlyoa.com/individual-journals/

Documenting Publications in P&T Documents

The following sections attempt to draw attention to important elements about documenting journal and conference articles in the P&T document.

Correct Placement

One of the most important things about documenting scholarly work in the P&T document is making sure that it is put in the right place in the document. Given the explanation of refereed and reviewed above, faculty should ensure the accuracy of placement as there is a significant difference between refereed and reviewed publications. Additionally, if a faculty member submits an article for review at a conference and does not complete the full manuscript in time for publication in the proceedings, the contribution should be listed in the "Presentation without publication" section of the P&T document. Doing otherwise is dishonest, as is listing a reviewed publication as refereed.

APA Citation Format

Another important aspect of documenting works in the P&T is accuracy in using the APA citation format. The current version of the APA manual should be consulted and all items in the citation should be verified for accuracy. Additionally, when available, Digital Object Identifiers (doi) should be used (as specified in the 6th Edition APA manual). Typically the APA format follows the following general form:

Author, F. I. (Year). Contribution title. Source Title, pp. X-XX. doi: xx.xxxxxxxxxx.

Author Order and Lead Author Identification

When publishing, the order of the author names on the contribution (and P&T citation) is important. Typically authors are ordered in the publication based upon the amount of effort expended in the creation of the publication. If the authors had equal effort on the publication, alphabetical order is typically used.

When documenting contributions in the P&T document, first verify that the order listed in the P&T exactly matches what was on the original publication. Improperly listing the author order can be perceived as dishonesty (whether intentional or accidental). The lead author of the publication should have a single asterisk following his or her last name, as shown in the example below.

Martin*, A. L., & Thomas, C. L. (2008). Improving spatial ability with mentored sketching. *Engineering Design Graphics Journal, 72*(1), 19-27.

If all authors were equal contributors, each last name should be asterisked.

Martin*, A. L., & Thomas*, C. L. (2008). Improving spatial ability with mentored sketching. *Engineering Design Graphics Journal, 72*(1), 19-27.

It is extremely important to cite all co-authors, including graduate students, and to list the authors in the same sequence they were cited in the actual publication.

Acknowledging Graduate or Undergraduate Authors

One of the important things for faculty is to mentor students through partnerships on scholarship activities. A primary way this is done is through co-authoring on journal and conference articles. It is important for faculty to identify student authors in the promotion and tenure document. A common convention for doing so is the use of a single underline for undergraduate students and a double-underline for graduate students. The first example below shows an example of a book with an undergraduate student co-author. The second shows an example of a book with a graduate student co-author. The third shows an example of a journal article, in review, with a graduate student lead author, and undergraduate co-authors.

Smith*, G. T., & <u>Johnson, T.</u> (2002). *Flash MX: Advanced Actionscript*. Albany, NY: Delmar. ISBN: 0766829103, 500 pages.

Larson, H. L., & Moon*, G. A. (2000). *Dreamweaver Ultradev 5: Dynamic web development*. Albany, NY: Delmar. ISBN: 076684871X, 500 pages.

Huston*, R. W., Brown, A., June, M., Burns, T., Barton, G., & Green, B. L. (*In review*). The effect of mental visualization on performance: A correlation study with collegiate swimmers. *Athletic Insight: The Online Journal of Sport Psychology.*

Dates of Publications versus In Review or In Press

Dates should only be included if the publication has actually been published and is available in print or online. Otherwise, substitute the publication's status in place of the date. For conference proceedings and journal articles, common words used are "In Review" and "In Press." In review means that a decision whether or not to publish has not been made by the publisher. The author is waiting for feedback from the reviewing organization. In press means that the organization has accepted the publication (with or without revision) and is in the midst of creating the online or print version of the submission. Candidates should not use any other items as a substitute for the date. For example, it is common for candidates to want to include "in manuscript" to acknowledge publications they are in the process of writing. P&T review committees do not see this as a positive; it is perceived as "padding" the P&T. **Only include references for those articles that are in print (by showing the year), in press, or in review.** The following example shows an example of the use of in press:

Zung*, Q. X., Mains, S. L., Chen, Yuehua, & Chen, Maurice. (*In press*). A qualitative study examining the spatial ability phenomenon from the Chinese student perspective. *The Engineering Design Graphics Journal.*

When publishing books or other contractual pieces of scholarship, "under contract" is a plausible substitute for the date. Under contract means that the author has a signed/approved contract and may be in any state of writing the manuscript.

Distinctive elements of a publication

Often a publication may have unique attributes that should be acknowledged. For example, a publication may have been awarded "best paper" or been cited a number of times. Additionally, a book may have been translated into another language, won an award, or been widely adopted. A very brief explanation of the distinctiveness of a publication may be included in parenthesis after the citation. For example:

(Best Paper).

(31 citations)

APPENDIX C- GRANT ACTIVITY FORM

Current Awards

Grant Activity

1. Agency/Title of Grant: _____
2. Duration of Funding (Dates): _____
3. Total amount of award: _____
4. Your role: _____
5. If Co-PI, for how much of the total funding are you directly responsible: _____

EXAMPLE 1

Grant Activity

1. Agency/Title of Grant: **NSF: Widgets of the World**
2. Duration of Funding: **Three (3) years (1993-1996)**
3. Total amount of award: **$180,000**
4. Your role: **PI**
5. If Co-PI, for how much of the total funding are you directly responsible: **NA**

EXAMPLE 2

Grant Activity

1. Agency/Title of Grant: **Beans for the Masses**
2. Duration of Funding: **Five (5) years (1993-1996)**
3. Total amount of award **$5 million**
4. Your role: **Co-PI**
5. If Co-PI, for how much of the total funding are you directly responsible: **$1 million**

INDEX