



UNIVERSITY OF NOTRE DAME

COLLEGE OF ENGINEERING

Department of Aerospace and
Mechanical Engineering

Faculty Handbook

I. INTRODUCTION

This document provides information to augment that published in the University Faculty Handbook. Any information provided herein is intended to be consistent with the University Faculty Handbook. This AME Faculty Handbook was initially prepared in the Spring 2006 by collecting a number of standing policy documents and is intended to represent current practice in the AME Department. It should be reviewed and updated on an annual basis. The most recent update is indicated on the cover page.

II. DEPARTMENT ADMINISTRATION

The formal structure of the Department should be minimized and those individuals tasked with significant administrative responsibility be formally recognized for their efforts. The following individuals or committees (with associated structures and responsibilities) provide the formal structure currently required by the Department.

A. DEPARTMENT CHAIR

The Chair's responsibilities are those documented in the Faculty Handbook and the appointment and review of the Chair follow the procedures outlined in the Faculty Handbook but those procedures are expanded upon later in this document to reflect recommendations made and approved by the Department in 1995.

“Within the framework of University policies and procedures, the chairperson of a Department has responsibility, under the dean of the college and, when appropriate, the vice president for Graduate Studies and Research, for the administration, well-being and development of the department, its faculty, course of studies, and other activities. The chairperson of a department may be assisted in the duties of the office by associate and/or assistant chairpersons, who are appointed by the President and who perform such duties and exercise such authority as may be delegated to them by the chairperson.” [2005-06 University Faculty Handbook]

It is recognized that the Department Chair must have discretionary control over resources in order to lead the Department effectively, assist untenured faculty, and respond quickly to unforeseen situations and opportunities. These capabilities necessitate a quick and responsive decision-making process.

There should be a sense of openness relative to all resources allocation. Some accountability regarding both individuals' spending as well as spending by the Chair should be built into the internal departmental system. This openness should extend to other matters, wherever possible, where decisions important to the Department are made, including hiring, graduate student recruitment/allocation, and tenure/promotion.

B. ASSOCIATE/ASSISTANT CHAIR

If the Chair elects to appoint an Associate or Assistant Chairperson, this position is at least a one-half time effort whose responsibilities are defined by the Chair. This can be filled by either one (half- time) or two (quarter-time) individuals, at the Chair's discretion. Each Associate Chair should receive summer support consistent with the level of effort expect during the summer session as these positions have year-round responsibilities. If the Chair elects to fill this position/s, the Chair makes a recommendation to the Dean of the College. Appointments to this position are made by the President.

C. DIRECTOR OF GRADUATE STUDIES (DGS)

The Director of Graduate Studies is appointed by the Chair from either elected members of the Graduate Studies Committee or from the T&R faculty. The Director assists the Chair in developing policy and administering the graduate program. The Director represents the Department in interactions with the Graduate School and serves as the chair of the Graduate Studies Committee. The Director, in conjunction with the Graduate Studies Committee, is responsible for administering the Ph.D. Qualifying Examination. The duration of this appointment is based upon the mutual agreement between the Chair and the Director.

D. DIRECTOR OF UNDERGRADUATE STUDIES (DUS)

If the Chair does not elect to appoint an Associate/Assistant Chair, the Chair may elect to appoint a Director of Undergraduate Studies from members of the faculty. The DUS assists the Chair in developing policy and administering the undergraduate programs. The DUS represents the Department in interactions with the College Dean's Office and serves as an ex-officio member of Curriculum Committees. The duration of this appointment is based upon the mutual agreement between the Chair and the Director.

E. DIRECTOR OF THE HESSERT LABORATORY

Due to the extensive facilities and unique role that the Hessert Laboratory plays in the Department's activities, and since the inception of the Laboratory in 1991, there has been a Director appointed by the Chair. The Director works with the Chair to support the faculty, staff and students in the Hessert Laboratory. The Director serves as the supervisor for the administrative and support staff in the Hessert Laboratory. The duration of this appointment is based upon a mutual agreement between the Chair and the Director. The appointment as Director is made by the University based upon a recommendation by the Chair to the Dean of the College of Engineering.

F. PROCEDURES FOR APPOINTMENT OF THE CHAIR

In the fall semester in the second year of the Chair's second three-year appointment, it is the Dean's responsibility to initiate the formation of a Chair Search Committee. This committee is made up of five members. It is desirable that the major disciplines in the Department are all represented on the Committee. Four members are elected from the Department Faculty, at least one of whom is untenured. The election procedure followed will be the same as the method used for other Department elections. The fifth member of the Committee is appointed by the Dean and normally would be from another Department in the College. The Committee will choose a Chair from among its members.

The Search Committee should review all candidates, both internal and external. As a rule all external candidates are reviewed prior to reviewing internal candidates. Being an internal candidate does not exclude a person from serving on the Search Committee; however, that member must not be present during activities related to his/her own review. Although a faculty member may wish to decline membership in the Search Committee because of his or her intent to pursue an appointment as Department Chair, it is expected that faculty of Department Chair caliber are exactly the type of persons who would best serve the Department as members of the Search Committee; as such, no negative bias should be attached to Department Chair candidates who serve on the Search Committee.

The Committee has the responsibility to provide the Dean with a list of at least three qualified candidates; this list must not be in any order of preference. The appointed Chair must come from

a list presented to the Dean by the Committee. Should the Dean find unacceptable all of the Committee-named candidates from the initial list, the Dean may ask the Committee to provide a new list, and so on, until a candidate, acceptable to both the Dean and the Search Committee, is found; no minimum number of candidates is required for lists after the initial list. In the rare case where the Dean and the Chair Search Committee do not agree on the suitability of any of the internal candidates, the Dean can request that the Committee identify qualified external candidates. Furthermore, if necessary, the Dean can appoint an Acting or Interim Chair. The Dean may nominate a candidate for review by the Search Committee at any stage of the official search. In the event of controversy, the Dean, in consultation with the Search Committee, may conduct his or her own review of the candidates.

The rationale for the Chair Search Committee comes from the desire of the faculty to create a tradition where no Chair is appointed outside the above process. The effectiveness of the Chair is substantially enhanced when open due process involving full input of the faculty is observed.

G. PROCEDURES FOR REVIEW OF THE CHAIR

The Department Chair's term should be six years, i.e., two three-year appointments. On rare occasions the Dean in consultation with the Department faculty may recommend that the Chair continue for a third three-year term or be terminated after a first three-year term. In order to provide a mechanism for faculty feedback related to the Chair's performance, it is recommended that a formal review be made near the end of the first three-year appointment. It is suggested that this review be conducted by an elected Departmental Committee, in consultation with the Dean of the College, during the spring semester of the Chair's third year. The Committee should be made up of four members elected using the Department's committee election policy. This Committee should produce a written report which should be submitted to the Dean and the Chair before the end of the spring semester. Under unusual circumstances, for instance in the event of controversy, the Dean, after the receipt of the Committee report and in consultation with the Committee, is free to conduct supplemental reviews of his or her own.

III. DEPARTMENTAL COMMITTEES AND OTHER ADMINISTRATIVE APPOINTMENTS

In accordance with the University Academic Articles, the Department has a Committee on Appointments (CA) and a Committee on Reappointment, Promotion and Tenure (CRPT) that together govern the appointment, reappointment, promotion and tenure (for tenure-track faculty) of its faculty.

A. COMMITTEE ON APPOINTMENTS (CA)

The Committee on Appointments (CA) serves as the departmental evaluative body on all new appointments to the faculty. The CA consists of all tenured and tenure-track faculty in the Department, regardless of the rank to which the candidate would be appointed, and the AME Department Chair serves as the chair of the CA. Other regular faculty members may be appointed to the CA as deemed appropriate by the Chair, particularly in cases of appointment of non-tenure-track faculty, such as Teaching and Research Faculty.

In cases of initial appointment, the Chair will form a search committee to organize and conduct a search for a new faculty member. Each search committee shall be constituted by members of the CA, and there is no limit on the size of a search committee. The Chair, in consultation with CA

members, shall make the appointment to a search committee. The Chair can be an ex-officio member of a search committee.

A search committee shall conclude its business with a recommendation of a new faculty candidate or candidates to the CA. The recommendation shall include a report to the CA to aid in its deliberation. A quorum of the CA members shall vote on the acceptance of the recommendation made by a search committee. The *CA deliberation* and results of the vote shall be recorded in the minutes of the CA and transmitted to the Chair and Dean of the College. Following the conclusion of the search committee business, that committee shall be disbanded. In cases where a rank other than assistant professor could be warranted for a given candidate, the CA will first deliberate and vote on the suitability of the candidate for an appointment in the Department and then the CRPT will evaluate at what rank any potential offer should be made.

B. COMMITTEE ON REAPPOINTMENTS, PROMOTION AND TENURE (CRPT)

The duty of the Committee on Reappointments, Promotion and Tenure (CRPT) shall be to evaluate cases of reappointment to assistant professor, promotion to associate professor with tenure, full professor or endowed chair, promotion to associate professor or full professor for non-tenure-track regular faculty, and consideration of rank for new appointments beyond the rank of assistant professor. A sub-Committee on Promotion (COP) shall prepare the supporting material for the promotion case of a Department faculty member. The members of the COP shall be at least at the rank of the promotion case under consideration, and there shall be no limit on the size of the COP. Appointments to the COP shall be made by the Chair, in consultation with CRPT members. The Chair can be an ex-officio member of a COP. Conflicts of interests (COI) that preclude both internal and external participation in the CRPT evaluation of a candidate are detailed in the Reappointment, Promotion and Tenure (RPT) Guidelines issued by the Provost's Office each academic year.

Each COP shall develop the supporting material for the promotion candidate (the details of which are outlined in the Guidelines for Reappointment, Promotion and Tenure distributed by the Provost's Office each year) that addresses the specific metrics for faculty performance for promotion in rank that are delineated in the Academic Articles and in the Appendices of this Handbook. The Chair, in consultation with the COP and CRPT, will solicit external letters of evaluation of the promotion candidate. The supporting material shall be compiled in a written report and submitted to the CRPT for their deliberations. *To ensure confidentiality of external reviewers, candidate assessment letters will be made available through the Chair.*

CRPT membership consists of all tenured members of the faculty who hold at least the rank to which the candidate seeks promotion, or in the case of reappointment of a tenure-track faculty member, who are at least tenured at the rank of associate professor. A non-tenure-track regular faculty member who holds a rank higher than any candidate under consideration may be included in the CRPT for evaluation of non-tenure-track regular faculty as deemed appropriate by the Chair. A majority of CRPT members must be present to discuss a case under consideration, while a quorum, consisting of a super majority of eligible CRPT members (including proxy votes), shall vote on the promotion case. The CRPT deliberation and results of the vote shall be recorded in the minutes of the CRPT and transmitted to the Chair and Dean of the College. Following the conclusion of the COP business, that committee shall be disbanded. All members of the CRPT must respect the strictly confidential nature of its proceedings, including deliberations, opinions, votes, recommendations, minutes and other documents.

All members of the CA and CRPT are obliged to respect the highly confidential nature of

their proceedings, including deliberation, voting, recommendations, minutes and other documents. Committee documents are available to succeeding committees to the extent necessary to the appropriate conduct of their business. The Chairperson is not precluded from conveying to the faculty member involved the essence of a CRPT's periodic evaluation unrelated to a specific reappointment or promotion.

C. EXECUTIVE COMMITTEE

Members of this Committee are elected using the Department committee election procedures with special provisions as noted here. The Committee is constituted of the Department Chair, who serves as chair, and four elected members: one full professor, one associate professor, one assistant professor and one research professor. Each Committee member is selected by his or her individual peer group; e.g. the full professor member is elected by the full professors only. The Committee meets at the request of the Chair, and its duties are to advise the Chair on any and all matters relevant to the Department.

D. GRADUATE STUDIES COMMITTEE

The committee is composed of elected from the T&R faculty (4 members with three-year staggered terms) and an appointed Director of Graduate Studies. The Department Chair is an ex-officio member. The committee has responsibilities for the monitoring the overall effectiveness of the graduate program and developing and recommending to the faculty the policies and procedures for administration of the graduate program. This includes the annual review of the Graduate Studies Handbook and the policies included therein. The committee has the responsibility, in consultation with the Department Chair, and based upon the recommendations of the faculty for the admission of graduate students and the available level of graduate stipend support within the Department. The committee selects candidates for nomination for special graduate fellowships and works with the Director of Graduate Studies on the preparation for and execution of the Qualifying Examination. Other responsibilities of the Committee are detailed in the Graduate Studies Handbook.

E. UNDERGRADUATE CURRICULUM COMMITTEES

Since the Department presents two separate, accredited undergraduate degrees, each degree program has its own Program Curriculum Committee. Since the two degree programs are closely aligned it is often appropriate that many of the activities and deliberations of the individual Committee's be performed as a Departmental Undergraduate Curriculum Committee. An individual faculty member can elect to stand for election to either or both of the curriculum committees depending upon their background or current engagement in the programs but at any given time they can only be represented on one committee. Both the Department Chair and the Associate Chair/s or the Director of Undergraduate Studies are members of the Departmental and both Program Curriculum Committees.

1. Committee for the Undergraduate Mechanical Engineering Program: Elected from the Teaching and Research (3 members with three year staggered term for each). Its responsibilities include the coordination of all activities related to the undergraduate programs in Mechanical Engineering including curriculum review, electives, advising, and accreditation.
2. Committee for the Undergraduate Aerospace Engineering Program: Elected from the Teaching and Research faculty (3 members with three-year staggered term for each). Its

responsibilities include the coordination of all activities related to the undergraduate programs in Aerospace Engineering including curriculum review, electives, advising, and accreditation.

F. ACADEMIC HONESTY COMMITTEE

Members of the regular T&R faculty are appointed by the Chair in compliance with the guidelines provided by the University Code of Honor Committee. The faculty members on the committee and the Chair are responsible each year to assure that appropriate students members are appointed to the committee. A faculty member is designated by the Committee to serve as the Chair and is responsible for the operation of the Committee. The duration of an appointment to this Committee is based upon the mutual agreement between the Chair and committee member.

G. HONOR AND AWARDS COMMITTEE

This standing committee is appointed by the Chair has the responsibility to assist the Chair in the development of the Department's reputation by identifying departmental faculty who are worthy of recognition for their scholarship, research or teaching by both internal and organizations. They are responsible for the development of nomination packages for faculty awards and aid in the identification of candidates for the College Honor Award and honorary degree nominations. They are assisted by the Department Administrator who coordinates the collection of nominations and other aspects of the selection process for the annual teaching and student awards. The duration of an appointment to this Committee is based upon the mutual agreement between the Chair and committee member.

H. SAFETY AND SECURITY COMMITTEE

This standing committee is appointed by the Chair and has the responsibility to work with the College of Engineering Director of Facilities and the University Office of Risk Management and Safety to assure that all activities and facilities in the Department are in compliance with all regulations and appropriate safety practices. The duration of an appointment to this Committee is based upon the mutual agreement between the Chair and committee member.

I. SEMINAR COORDINATOR

A faculty member, appointed by the Chair, coordinates the Departmental Seminar program. This person solicits recommendations from the faculty for seminar visitors and works with Chair to allocate available resources to support this program. The Coordinator works with the administrative staff to set the seminar schedule and visitor agendas. The duration of this appointment is based upon the mutual agreement between the Chair and faculty member.

J. STUDENT ORGANIZATION FACULTY ADVISORS

The Chair is responsible for working with the faculty to select advisors for all officially sanctioned student organizations. The faculty are encouraged to provide this important service to the profession and Department. The duration of an appointment to serve as a faculty advisor is based upon the mutual agreement between the Chair and faculty member. If no one is willing to serve as the faculty advisor, the student activity will be suspended or eliminated.

K. AD-HOC COMMITTEES

Any other ad hoc committees or positions which the Department Chair requires should be at

his/her discretion and the faculty should be duly notified. Any "permanent" committee or "positions" should be brought before the Department faculty as a whole so that their composition and responsibilities can be established before they are instituted. It is important that any ad-hoc committee cannot supersede the activities of any established committee.

L. COMMITTEE ELECTION PROCEDURES

The following guidelines are provided for the selection of election of members to faculty committees. Most elections can be conducted via the internet to allow for the widest possible faculty participation and are coordinated, and the ballots tallied, by the Department Administrator. The elections for the Graduate Studies and Undergraduate Curriculum Committees will take place in May.

1. If one member of the Committee is to be elected - top two (the procedure to deal with ties in indicated below) from first round will be voted on in a second round. Simple majority of the votes cast needed to be elected. If one candidate receives a simple majority in the first election, no second ballot is required.
2. If two members of the Committee are to be elected - top three from first round will be placed on a subsequent ballot. 30% of the total votes cast needed to be elected. If two members are not elected by the second ballot, a third ballot will include those candidates not receiving at least 30% of the votes cast.
3. All ties will be broken by flipping a coin.

M. INDUSTRY ADVISORY GROUP

The Chair has the discretion of appointing an Industry Advisory Group. This is a group of engineering professionals from key industrial sectors that have interest in the continued development of the Department. They are selected by the Chair based upon recommendations from the faculty. The Industry Advisory Group meets on campus, nominally once a year, to review programs, meet with students and faculty and assist in the ongoing assessment of the Department.

N. UNDERGRADUATE STUDENT ADVISORY GROUP

The Chair has the discretion of appointing a group of undergraduate students to provide ongoing direct interaction with the Department's undergraduates. The group should include students from both degree programs at each year in the program. The Chair and the Associate Chair/s or Director of Undergraduate Studies should meet on a regular basis, at least once per semester, with the members of this group to discuss issues of mutual interest and to assist in the ongoing assessment of the Department.

IV. FACULTY POLICIES

The following outlines policies related to all faculty classifications. It is intended to highlight key policies and practices and any questions not addressed by this section should be directed to the Chair.

A. FACULTY APPOINTMENTS

The Committee on Appointments (CA) is responsible for faculty hiring as described in detail in Section IIIA of this Handbook.

B. TENURE AND PROMOTION

The Chair and the Committee on Reappointments, Promotion and Tenure (CRPT) are responsible for complying with the guidelines set forth by the Faculty Handbook and provided by the Provost's Office as related to tenure and promotion. Expectations for performance are defined using the guidelines in the University Faculty Handbook for all faculty ranks and the Criteria and Standards set forth in the Appendices of this Handbook.

C. T&R FACULTY - PERFORMANCE REVIEWS

The Chair is responsible for annual reviews of the faculty and the review process is outlined in Appendix B of this Handbook. It is most appropriate that direct feedback be provided to the faculty on an annual basis. If written feedback is provided it should be included in the permanent file maintained in the Department office. To assist in this process, each faculty member is requested to provide an annually updated version of their CV that is kept on file in the Department Office. Periodically during the year, faculty may be asked to provide additional information on past and current activities to assist in this process.

D. SPECIAL PROFESSIONAL FACULTY - PERFORMANCE REVIEWS

Special guidelines have been developed by the College and this information is included as Appendix A.

E. RESEARCH FACULTY - PERFORMANCE REVIEWS

The faculty member responsible for recommending the appointment of a research faculty member is also responsible for providing an annual assessment of the performance of the research faculty. Recommendations for re-appointment should include comments on performance.

F. EMERITUS FACULTY

The Department is committed to provide support consistent with the guidelines in the University Faculty Handbook to all emeriti faculty consistent with available resources. If office space is available, an office will be made available though in most cases one should anticipate this would be a shared office. Very limited storage space for personal professional items can be provided, typically this will be limited to items that can be secured in a desk. The Chair will be responsible for providing notification to the emeriti faculty of any changes in availability of University provided office space with at least 3 months notice.

G. LEAVE OF ABSENCE

The Department supports the faculty participation in the University approved Leaves of Absence for professional development. It is advisable for faculty to who are considering taking a leave contact the Chair as soon as possible to explore the best timing for a leave. A faculty member seeking a leave should make their intentions known at least 18 months prior to a anticipated leave to allow for accommodation of their absence on the Department's teaching schedule. Leaves can only be granted if appropriate accommodations can be made in the Department's teaching programs.

H. TEACHING ASSIGNMENTS

The Chair, working with the faculty, establishes the elective and required course

sequencing and makes the teaching assignments. The nominal teaching load in the department is three course per academic year for faculty who are engaged in an active, externally-funded research program. If one is not currently engaged in significant externally funded research or administrative responsibilities, they should anticipate additional teaching responsibilities. Untenured faculty are usually expected to teach two courses per year during their probationary period. Faculty can discuss with the Chair research semesters in which their regular teaching assignments are balanced in a way to allow a semester to focus on research activities.

I. ACADEMIC ADVISING OF UNDERGRADUATES

All faculty are expected to assist in the process of providing curricular and professional development advice to the undergraduate students. Nominally each faculty member is assigned a small number of undergraduates and serves the role as the students' academic advisor. The faculty are expected to familiarize themselves with the basic structure of one or both of the degree programs, depending upon the students assigned to them. They are expected to formally meet with each of their advisees at least once per semester and make themselves available to answer questions between the formal meetings. The faculty are encouraged to refer all questions that involve exceptions to the standard curriculum to the Director of Undergraduate Studies, Associate/Assistant Chair or Chair.

J. GRADUATE STUDENT ADMISSION

All faculty who wish to advise graduate students are expected to take an active part in the graduate student admission process that is coordinated by the Chair, the Director of Graduate Studies and the Graduate Studies Committee. Access to information on all applicants will be provided to the faculty and each should provide recommendations based upon the needs of their research program and available resources.

K. GRADUATE STUDENT ADVISING

The assignment of graduate students to research advisors is made by the Chair with the consent of the faculty. Research advisors are responsible for both the financial support and program planning for their graduate students. Faculty should acquaint themselves with the policies and procedures outlined in the AME Graduate Studies Handbook and review those on a regular basis. If a faculty member encounters problems in working with a particular graduate student they should contact the Chair or the Director of Graduate Studies and document all issues of concern. If graduate students fail to make reasonable progress towards completion of their degree the faculty should bring that to the attention of the Chair and the Director of Graduate Studies and document their concerns in the student's permanent file. Dismissal from the graduate program is made by the Chair.

L. TEACHING ASSISTANTS

All graduate students are expected to participate in the teaching mission of the Department during most of their graduate program. Faculty can request the assistance of graduate students in their courses. This request is made in writing to the Chair at a designated date prior to the beginning of the semester. All efforts are made to satisfy the faculty's requests if made prior to the designated deadline. Requests made after the deadline most likely will not be able to be accommodated. All faculty who work with a teaching assistant are expect to provide a brief written evaluation of the performance of the student/s at the end of each semester.

M. FACULTY MEETINGS

The faculty will be periodically requested to participate in Faculty Meetings to address issues of common concern. Advance notice of meetings will be provided and faculty should then make every effort to participate. If individual faculty wish to have items included on a Department meeting agenda, they should provide them to the Chair in advance of the meeting or introduce them as new business during the meeting. If a faculty member wants to request a faculty meeting on a specific topic, they should submit that request in writing to the Department Chair.

V. ADMINISTRATIVE PROCEDURES

The following procedures outline current practice in the Department. A number of the forms and documents cited below are available on the Department web site.

A. TRAVEL

All faculty are required to abide by the University Travel Policies. If a faculty member anticipates being away from campus during the normal work-week, they should submit a Proposed Travel form to the Department Administrator. This information is used by the administrative staff to assist them in communicating with the faculty. If funds for some, or all, of the travel is to come from any University source, the Proposed Travel form must be submitted prior to the travel.

Funds to assist the faculty for professional travel are set aside each year from the Department's annual budget. Prior to the beginning of the fiscal year (July 1) the Chair will request from each faculty an estimate of the total amount of support requested to support professional travel during the upcoming fiscal year. The written response to this request should include the location, purpose and amount requested for each trip for which Departmental funds are requested. The Department will attempt to allocate available funds in a manner that will support up to 50% of the total cost of two trips per year with the expectation that the remainder of the funding will come from other sources. The Chair will notify the faculty near the beginning of the fiscal year of their total travel allocation for the upcoming year to assist them in planning their professional activities for the year.

Special consideration will be given to untenured faculty to assist them in their professional development and it is recognized that other situations will require the Chair to use discretion in the distribution of faculty travel funds. If unexpected opportunities or situations arise during the fiscal year that require additional funds, the faculty should discuss them with the Chair prior to making commitments.

Faculty are expected to make arrangements for taking care of teaching responsibilities prior to planning travel. Travel for personal reasons during the academic year that results in a faculty member missing a scheduled class should be considered only for extraordinary reasons and discussed in advance with the Chair.

The faculty are responsible for providing procedural guidance and financial support for travel for their graduate students and undergraduate students working with their research group.

B. FACULTY OFFICES AND OFFICE SUPPLIES

Faculty are provided with an office in one of the Departmental facilities and are expected to maintain the office in a safe and professional condition in order to allow for the maintenance staff to clean and service the offices. Faculty offices are nominally assigned based upon rank and seniority on the Notre Dame faculty. The Department makes every effort to provide reasonable office supplies to assist the faculty in their daily activities. This includes printer and copier paper,

notepads, pens, pencils, etc. Specialized needs are the responsibility of the individual faculty member.

C. LABORATORIES

Faculty are provided with laboratory space based upon the needs of their research programs and availability. They are expected to manage the laboratories and their student's use of the space following the guidelines set forth by the Office of Risk Management and Safety. Laboratory, graduate student and other spaces are allocated by the Dean of the College and can change based upon utilization and needs.

D. NON-REGULAR ACADEMIC APPOINTMENTS

Faculty requesting non-regular academic appointments such as post-docs, visitors, etc. should discuss these plans with the Chair and then coordinate the required paperwork with the Department Administrator. Office space for visitors or non-regular appointments will be allocated based upon availability and should be considered and discussed with the Chair prior to making commitments.

E. CAMPUS WORKSTATION PROGRAM (CWP)

The faculty are expected to participate in the CWP program and maintain a current campus workstation for administrative communication purposes. The Department Administrator coordinates new computer acquisitions under this program with the appropriate College OIT representative. The faculty should update their computers using the schedule provided by the program and are responsible for expenses associated with purchases that exceed the CWP allotment.

F. PRO-CARD

Faculty who have ProCard privileges are expected to comply with the University directives for their use and follow the appropriate record keeping and reporting requirements. All questions regarding the use and record keeping should be directed to the Department Administrator.

G. RESEARCH PROPOSAL SUBMISSION AND BUDGET MANAGEMENT

All research proposals submitted by faculty in the Department should be brought to the Department office as the first step in their formal submission. In addition to all copies needed by the College and sponsor, a single additional copy should be made for the Department files. The PIs should also submit with the proposal the AME form that provides an estimate any technical support staff effort that will be required to complete any technical support staff activities outlined in the proposal.

H. TECHNICAL SUPPORT STAFF TASKS

Faculty wishing to use the services of the technical support staff should fill-out and submit a Technical Support request form. All active technical staff work orders are posted on the web, updated on a regular basis and available to the faculty as they plan their activities. The technical staff tasks are prioritized by the Department faculty member with that responsibility. Questions related to project priority or other issues of concern related to the technical support should be discussed with the Chair.

I. PROCEDURES FOR AMENDING THE HANDBOOK

Policy issues, election procedures and elected committees defined in this handbook may be amended by a two-thirds vote of the Department's teaching and research faculty and approval by the Dean of the College of Engineering. Amendments may be proposed in writing at any time to the Chair by any member of the Department's teaching and research faculty, and shall be presented by the Chair for consideration at the next following meeting of the Department. Administrative procedures outlined in this Handbook reflect current Departmental practice and will be periodically updated to reflect changes in those procedures.

Appendix A

Notre Dame College of Engineering Guidelines for Renewal and Promotion of Special Professional Faculty (19 August 2004)

1. Introduction

The purpose of this document is to set forth guidelines for the renewal and promotion of special professional faculty (SPF) in the College of Engineering. A department may use an SPF appointment to fill a “special” faculty role in order to advance the strategic plan of the department or college. The role is “special” in the sense that the individual possesses special professional skills and fills roles different from a regular teaching and research faculty appointment.

2. SPF Appointment Position Description

Because an SPF appointment may be used to fill a variety of different roles, it is important that each SPF appointment has these roles well defined. Part of this definition should be a written position description that outlines responsibilities and the percent of effort to be devoted to each. Possible categories of responsibility include teaching, research, administration, technical support, and service. The role of the SPF appointment, in terms of the set of responsibilities and the interactions with other faculty in the department, should be presented to all of the department faculty.

Typically, an SPF appointment will include a significant component in support of the teaching mission of the department, equivalent to at least one three-credit-hour course per semester.

3. Annual Review

Prior to the start of each academic year, the SPF should provide the department chair with documentation of performance / achievements for the previous year. This documentation may be presented in the form of, for example, a list of accomplishments, an updated cv, and / or any other appropriate documentation.

The department chair should meet with each SPF at least once a year for the explicit purpose of reviewing goals, progress, and performance. In the case that any element of the review is not satisfactory, this should be documented in writing. The review should take place in the context of the position description. The role of the SPF may evolve, making it appropriate to change the position description, and a review of the position description should take place as part of the annual performance review. For some SPF appointments, it may be appropriate for the review to be more frequent than once a year, and / or for the department CAP to participate in the review.

4. Reappointment

The normal SPF appointment is for one year. The case for reappointment should be made in the context of the set of responsibilities outlined in the position description, and the faculty member’s ability to fulfill those responsibilities, as well as collegiality within the department. A typical SPF position must go through a series of three or more annual re-appointments before being considered for a multi-year appointment.

Multi-year appointments of up to three years in length are possible. Such an appointment would normally be made in cases where the performance is consistently excellent and the department’s needs filled by the SPF are projected to be stable for at least the duration of the multi-

year appointment. In the case of a multi-year appointment, there should still be an annual performance review.

5. Promotion

Promotion, like re-appointment, should take place in the context of the set of responsibilities and performance as detailed in the position description. The position description should be a part of the promotion documentation. Each area of responsibility should be evaluated, and formal, written evaluation for each area should be part of the promotion documentation. In other respects, the promotion documentation should follow the guidelines in “Promotion Procedures: Non T&R Faculty” (Affleck-Graves, 22 December 2003), and the qualification for promotion should be commensurate with the guidelines defined in the Faculty Handbook, Article III, Section 3(d) (page 23 in the 2003-2004 Edition).

Appendix B

AME Faculty Annual Review Process (Revised May 10, 2007)

In a letter to all Colleges in the Fall 2006, the Provost stated the requirement for each department to formalize and document aspects of their annual faculty review process. The following describes the process for AME that has been endorsed by the AME CAP.

- a. Prior to the beginning of the fall semester, each member of the faculty is asked to update their CV and provide an electronic copy for use by the Department.
- b. By the end of the first week in February each year, each member of the faculty will prepare and submit to the Chair an Annual Activity Report that summarizes activities and accomplishment from Feb. 1, Year Prior to Jan. 31, Current Year. The activity report will detail the following information:
 - i. Journal articles that appear in print during this period
 - ii. Journal articles submitted for review during this period
 - iii. Conference and symposium papers published or presented during this period
 - iv. Books, chapters, monographs, etc. published during this period
 - v. Undergraduate student research projects mentored
 - vi. Awards and professional recognitions received
 - vii. Professional society activities, editorships, meeting or committee chairs, etc.
 - viii. Participation on Department, College or University committees
 - ix. Names and status of all current graduate students
 - x. Names and status of all graduate students who completed their degree during this period
 - xi. Externally funded projects active during this period
 - xii. Research proposals submitted during this period
 - xiii. Research proposals awarded funding during this period
 - xiv. Courses taught and enrollmentEach faculty member is responsible for providing items a-h with the same type of detail that would appear in the CV. The AME office can provide the information for items i-n if an individual does not wish to do so.
- c. All untenured faculty will receive an annual written report providing an assessment of their performance in teaching, research and service. This report will be prepared by the Chair in consultation with the CAP and copies will be sent to the Dean and Provost. The letter and issues therein will be discussed with the faculty during their annual spring meeting with the Chair. This report will NOT be part of their reappointment, tenure or promotion file. This report must be completed prior to the end of the spring semester.

- d. During the spring semester, all tenured associate professors are requested to provide updated copies of their CVs to the Chair. These are distributed to the CAP and the accomplishments of each individual are reviewed and discussed during a CAP meeting. Comments and recommendations are made to the Chair who meets with each associate professor in the latter half of the semester and shares the comments with the faculty member. No formal documentation of the CAP discussion or discussions between the Chair and faculty member is recorded.
- e. All other faculty will meet with the Chair during the second half of the spring semester to review their annual activity and discuss other issues of mutual concern.

Appendix C

**University of Notre
Dame
Department of Aerospace and Mechanical
Engineering**

Teaching Evaluation Process:

1. The Aerospace and Mechanical Engineering Department Teaching Evaluation Committee (TEC) is composed of the members of the CAP, and the chair of the TEC is the Department Chair.
2. Each academic year all untenured faculty, any faculty who request a review, and any faculty whose teaching performance is cited as deficient by the Department Chair will be reviewed by the TEC, and that review will be documented as indicated below.
3. One member of the TEC will be assigned by the Chair to conduct the review and, in discussion with the TEC, will select the course/s that will be reviewed during the upcoming academic year at the beginning of the fall semester. At least one course will be evaluated each semester. If possible, one graduate and one undergraduate course should be evaluated each year. This member of the TEC will be responsible for the review and will provide her/his assessment and associated documentation to the TEC by the middle of the spring semester. When appropriate, the review can consider information and materials from the previous spring semester. As a minimum, the review will include:
 - a. Evaluation of teaching materials provided by the faculty member. The faculty member will be asked to provide syllabi, handouts, projects, sample graded material, etc. for review as well as any other information they believe will assist in the evaluation.
 - b. Documented class visits (at least one per semester) for the course/s to be evaluated.
 - c. Review of TCE results for all courses taught by the faculty member.
 - d. Completed Teaching Evaluation Summary Form (See Appendix G) prepared by the reviewer.
4. Upon completion of the review and TEC discussion, the Chair will meet with the faculty member to discuss the review and provide a copy of the evaluation form.
5. After meeting with the chair, the faculty member is given one week to provide response and request additional comments.

The process outlined above was developed in compliance with the guidelines provided by the Provost on Feb. 18, 2007 and in the spirit of the recommendations of the Advisory Committee to the Provost on the Evaluation of Teaching (ACPET) published on the same date.

Approved by the AME Committee on Appointment and Promotions, Feb. 22, 2007

Appendix D

University of Notre Dame Department of Aerospace and Mechanical Engineering

Criteria and Standards for Reappointment to Assistant Professor:

Three primary criteria are considered during the evaluation of the candidate's record: Research/Scholarship, Teaching/Mentoring, and Service to the Profession/University. Elements associated with each criterion are indicated below. The overall assessment of the candidate is based upon achievements associated with each of the elements with respect to the standards.

Research and Scholarship

The Department expects the candidate to have begun making contributions to his/her field(s) of research. Specifically, the candidate is expected to have initiated an independent research program that addresses important problems and is positioned to make an impact in the near future. Evaluation of the quality of a research program in this regard is based on scholarly works, intellectual property (when appropriate), applications for and attainment of research funding, and infrastructure development (when appropriate). Because the fields of aerospace and mechanical engineering are extremely broad, though, no single standard in any of these categories is universally applicable to all candidates. The CAP and the department chair objectively weigh the contributions in each area, emphasizing the level of research quality and productivity at the time of reappointment evaluation and the likelihood that the candidate's record will continue to grow in quality and quantity to meet the requirements for tenure and promotion at the time of obligatory promotion evaluation (or sooner, as appropriate).

At the time of reappointment evaluation, the candidate should have produced scholarly works that reflect accomplishments as an independent researcher at Notre Dame. Scholarly works include journal papers, conference/workshop/symposia papers, books, book chapters, monographs and invited lectures at conferences, other academic institutions, and/or research organizations. In most sub-disciplines of aerospace and mechanical engineering, papers in highly-regarded refereed journals are expected, but well-placed conference proceedings may be the norm in some fields. A candidate's record is evaluated in terms of both the quantity and quality of his/her scholarly publications and how those two characteristics collectively establish the overall impact of the publications. Quantity is assessed primarily to determine if the candidate's activities during the initial appointment period have built sufficient momentum that his/her record will be adequate to establish the candidate as someone who addresses and answers important problems in his/her field at the time of obligatory promotion evaluation. It is recognized that the candidate's publication record at the time of reappointment evaluation is likely to reflect a transition from papers generated from the candidate's prior academic appointment (co-authored with mentees at another institution and/or previous research advisors, for example) to papers co-authored with faculty colleagues or external collaborators, single-author papers, and papers with ND mentee co-authors from research conducted as an independent researcher. As editorial practices, including referee review and publication times, can vary significantly between publishers and journals, some publications may be in the editorial process at the time of reappointment; these may also be considered as appropriate. Critical to establishing the candidate's growing independence as a researcher at the time of reappointment evaluation requires an evaluative emphasis on those publications for which

the candidate or one of his/her mentees is the first or corresponding author, or intellectual lead of the research reported. For reappointment evaluation, quality and impact of the publications are judged by internal peer assessment from tenured faculty.

Intellectual property is primarily taken to mean pending or awarded patents, as well as technology that may be licensed from the University. When appropriate, a candidate's research program is evaluated in terms of the quantity, quality, and overall impact of his/her intellectual property, similar to the internal and quantitative evaluations of scholarly publications. In this way, a high quality pending or awarded patent or licensed technology would be viewed as at least equivalent in significance to a scholarly publication.

Research funding includes funds secured from both internal and external sources. At the time of reappointment evaluation, the candidate is expected to have made significant efforts to secure research funding from external sources to support his/her research activities. These funds should include acquisition of laboratory equipment/supplies and/or support of an appropriate number of graduate students and, as appropriate, post-doctoral researchers and research scientists, at a level that would enable consistent scholarly productivity as described above. It is common that research proposals and grants will include multiple co-investigators. In cases in which the candidate's funding mechanisms are primarily collaborative, the candidate's individual intellectual contributions should be clearly enough defined to establish his/her unique research identity. Evidence of success in attaining external, peer-reviewed research funding is important for evaluating the candidate's growing independence as a researcher and the likelihood that he/she will continue to build funding momentum at a sufficient level to achieve the research productivity expected at the time of obligatory promotion evaluation (or sooner, as appropriate).

Infrastructure development is taken to mean unique physical facilities, pieces of equipment, computer codes, or other novel entities created or modified by the candidate (and his/her research group) as an independent researcher that enable him/her to conduct research. The significance of infrastructure is evaluated by 1) internal peer assessment from tenured faculty and 2) metrics related to the utility of the infrastructure (publications or intellectual property related to its development or involving its use, external research funding secured for its development or use, frequency with which other researchers request to use it, etc.). In the case that infrastructure is co-developed by peers of the candidate, it is expected that the candidate's individual contributions will be sufficiently distinguishable to establish his/her unique research identity.

Teaching and Mentoring

The Department expects the candidate to have begun making contributions to teaching at both the undergraduate and graduate levels. Specifically at the undergraduate level, the candidate is expected to have, as the instructor of record, shown the promise to effectively present multiple offerings of a course that significantly contributes to one or both of the undergraduate programs. At the graduate level, the candidate is expected to have, as the instructor of record, shown the promise to effectively present at least one offering of a course (or courses) that attracted the enrollment of graduate students from the Department. Contributions to teaching may also include course development at any level. Course development refers to either development of a new course (or courses) or instituting notable pedagogical or structural enhancements to an existing course (or courses) at either the undergraduate or graduate level.

Evaluating the effectiveness of a candidate's instruction at both the undergraduate and graduate levels is based on course design, implementation, evaluation of student work, and student perceptions. In this regard, the Department highly values a candidate's efforts to improve his/her

teaching effectiveness in subsequent offerings of courses in response to both peer and student assessments, as well as to pursue professional development opportunities (workshops, on-campus resources etc.) before or during reappointment evaluation.

Course design is particularly emphasized for newly developed courses and elective courses for which the candidate has more flexibility in the course content. The Department encourages originality and experimentation in presenting course material across the curricula, though, so novel contributions to core courses are also highly valued. Course design is primarily evaluated by peer assessment from tenured faculty, both annually and cumulatively, to determine if the learning goals are meaningful and clearly articulated and if the content is rigorous, current, and relevant. Such peer assessments are supplemented by student assessments from the CIF evaluations, particularly the Component 1 score that measures Clarity and Organization.

Implementation is primarily evaluated by peer assessment from tenured faculty, particularly those who annually attend one or more of the course meetings. Evaluation considers whether the candidate cultivates a stimulating environment that effectively uses students' time to stimulate learning, creative thinking, and analytical skill development. Where appropriate, student enrollment and performance in subsequent (elective and required) courses and/or undergraduate research opportunities is used to help evaluate whether students develop the required knowledge and skills in the course and whether some develop a genuine interest in the material. Peer assessments are supplemented by student assessments from the CIF evaluations, particularly the Component 3 score that measures Stimulation of Learning, the reported Degree of Intellectual Challenge, and the reported Time Studying Outside of Class.

Evaluation of student work is primarily evaluated by peer assessment from tenured faculty. These assessments determine whether appropriate and rigorous standards are employed to evaluate student work toward achievement of the course learning goals and whether proper feedback is provided to students. Such peer assessments are supplemented by student assessments from the CIF evaluations, particularly the Component 2 score that measures Guidance and Support.

Student perceptions are evaluated by consideration of all of the CIF component scores, particularly the Composite score, and all of the characteristics of the course, including the type of course, enrollment, historical student perceptions, and the candidate's proactive revisions to the course presentation in response to the previous CIF reports. Emphasis is placed on the complete record of scores as opposed to scores from any individual course offering. In some cases, the Department may, with the candidate's permission, survey students/alumni who have completed the course to determine if/how their perceptions have changed with time.

In terms of mentoring, the Department expects the candidate to begin making significant contributions to the advising and mentoring of both graduate and undergraduate students outside the normal responsibilities pertaining to any specific course. At the graduate level, mentoring is evaluated by peer assessment of the candidate's participation in the evaluation, recruitment, and development of graduate students. Graduate student mentoring can be most effectively evaluated by the candidate successfully advising students along the milestones required for successful completion of the Ph.D. degree (including completion of requirements for degree such as the Qualifying examination, co-authoring scholarly publications with these students, student participation in conferences and meetings, and so forth), serving on the committees of graduate students advised by other faculty, and contributing to the evaluation of graduate students via Qualifying and Candidacy examinations. At the undergraduate level, mentoring is evaluated by peer assessment of the candidate's participation in regular undergraduate advising and other engagement with undergraduates through activities such as, but not limited to, advising

undergraduate researchers, undergraduate publications and/or theses, student clubs, and entries into national engineering competitions.

Service to the Profession and University

The Department expects the candidate to have engaged with and made contributions to his/her research community beyond the technical research and scholarship contributions evaluated as described above. Baseline engagement is expected to include membership in the professional society or societies appropriate to the candidate's research activities. Contributions to the research community can be demonstrated by reviewing journal and conference paper submissions, reviewing proposals to funding agencies, giving presentations at conferences or workshops, chairing sessions at conferences or workshops, assisting with the organization of conferences or workshops, participating on technical committees, and other service-oriented activities.

The Department expects the candidate to have begun engaging with the intellectual and academic life of the community of scholars within the university beyond the research and teaching contributions evaluated as described above. Expected engagement prior to reappointment evaluation includes regular participation in departmental meetings, seminars, and hiring activities. Additional contributions to the university community can be demonstrated by serving on formal committees, participating in undergraduate and graduate research forums, meeting with prospective undergraduates, giving laboratory tours or research presentations to visitors, participating in orientation events, and other service-oriented activities. In addition to the formal mentoring expectations described above, informal mentoring is also assessed and valued as a service contribution, particularly in cases in which a number of undergraduates gravitate to the candidate as a mentor because of his/her skills, background, gender, ethnicity, etc. The candidate is highly encouraged to appropriately document any informal service activities in which he/she engages. The Department expects the candidate's internal service contributions to be rather modest prior to reappointment evaluation, since greater emphasis is placed on research, teaching, and service to the research community at this stage of his/her career. Overall, the candidate should have demonstrated the ability to effectively engage with peers, students, and staff in constructive ways that enhance the learning environment and the Notre Dame community.

Revised and Approved by the AME Faculty: May, 2, 2019

Appendix E

University of Notre Dame Department of Aerospace and Mechanical Engineering

Criteria and Standards for Promotion to Associate Professor with Tenure:

Three primary criteria are considered during the evaluation of the candidate's record: Research/Scholarship, Teaching/Mentoring, and Service to the Profession/University. Elements associated with each criterion are indicated below. The overall assessment of the candidate is based upon achievements associated with each of the elements with respect to the standards.

Research and Scholarship

The Department expects the candidate to have made significant contributions to his/her field(s) of research. Specifically, the candidate is expected to have developed an independent research program that addresses important problems, has had a positive influence on those problems, and is positioned to continue having impact on important problems in the future. Evaluation of the quality of a research program in this regard is based on scholarly works, intellectual property (when appropriate), research funding, and infrastructure development (when appropriate). Because the fields of aerospace and mechanical engineering are extremely broad, though, no single standard in any of these categories is universally applicable to all candidates. The CAP and the department chair objectively weigh the contributions in each area, emphasizing the level of research quality and productivity at the time of application for tenure and the likelihood of sustained research quality and productivity based on the established history in each area.

Scholarly works include journal papers, conference/workshop/symposia papers, books, book chapters, monographs and invited lectures at conferences, other academic institutions, and/or research organizations. In most sub-disciplines of aerospace and mechanical engineering, papers in highly regarded refereed journals are expected, but, well-placed conference proceedings may be the norm in some fields. A candidate's record is evaluated in terms of both the quantity and quality of his/her scholarly publications and how those two characteristics collectively establish the overall impact of the publications. Quantity is assessed primarily to determine if the number of publications is adequate to establish the candidate as someone who addresses and answers important problems in his/her field. The record is likely to be constructed of a spectrum of publications, potentially including papers from the candidate's prior academic appointment (co-authored with mentees at another institution and/or previous research advisors, for example), papers co-authored with faculty colleagues or external collaborators based on research conducted as an independent researcher, and single-author papers based on research as an independent researcher, but the record must include papers with mentee co-authors. Establishing the candidate's independence as a researcher at the time of promotion and tenure evaluation requires an evaluative emphasis on those publications for which the candidate or one of his/her mentees is the first or corresponding author, or intellectual lead of the research reported. Quality is judged by 1) internal peer assessment from tenured faculty and 2) external assessment from leaders in the field, both of which will address the quality of the publication venues. Likewise, the overall impact of the publications is evaluated by 1) internal peer assessment from tenured faculty and 2) external assessment from leaders in the field, both of which will be informed by metrics related to the utility of the work to other researchers (citations within major citation databases, downloads/reads, etc.).

Intellectual property is primarily taken to mean pending or awarded patents, as well as technology that may be licensed from the University. When appropriate, a candidate's research program is evaluated in terms of the quantity, quality, and overall impact of his/her intellectual property, similar to the internal, external, and quantitative evaluations of scholarly publications. In this way, a high quality pending or awarded patent or licensed technology would be viewed as at least equivalent in significance to a scholarly publication.

Research funding includes funds secured from both internal and external sources. The candidate is expected to acquire the research funds necessary to sustain his/her research activities. These funds should include acquisition of laboratory equipment/supplies and/or support of an appropriate number of graduate students and, as appropriate, post-doctoral researchers and research scientists, at a level that will enable consistent scholarly productivity as described above. It is common that grants will include multiple co-investigators. In cases in which the candidate's funding mechanisms are primarily collaborative, the candidate's individual intellectual contributions should be clearly enough defined to establish his/her unique research identity.

Infrastructure development is taken to mean unique physical facilities, pieces of equipment, computer codes, or other novel entities created or modified by the candidate (and his/her research group) as an independent researcher that enable him/her to conduct research. The significance of infrastructure is evaluated by 1) internal peer assessment from tenured faculty, 2) external assessment from leaders in the field, 3) metrics related to the utility of the infrastructure (publications or intellectual property related to its development or involving its use, external research funding secured for its development or use, frequency with which other researchers request to use it, etc.), and 4) securing external funding for the development or purchase of the equipment. In the case that infrastructure is co-developed by peers of the candidate, it is expected that the candidate's individual contributions will be sufficiently distinguishable to establish his/her unique research identity.

Teaching and Mentoring

The Department expects the candidate to have made significant contributions to teaching at both the undergraduate and graduate levels and to course development at any level. Specifically at the undergraduate level, the candidate is expected to have, as the instructor of record, effectively presented multiple offerings of a course that significantly contributes to one or both of the undergraduate programs. At the graduate level, the candidate is expected to have, as the instructor of record, effectively presented multiple offerings of a course (or courses) that attracted the enrollment of graduate students from the Department. Course development refers to either development of a new course (or courses) or instituting notable pedagogical or structural enhancements to an existing course (or courses) at either the undergraduate or graduate level.

Evaluating the effectiveness of a candidate's instruction at both the undergraduate and graduate levels is based on course design, implementation, evaluation of student work, and student perceptions. In this regard, the Department highly values a candidate's efforts to improve his/her teaching effectiveness in subsequent offerings of courses in response to both peer and student assessments, as well as to pursue professional development opportunities (workshops, on-campus resources etc.).

Course design is particularly emphasized for newly developed courses and elective courses for which the candidate has more flexibility in the course content. The Department encourages originality and experimentation in presenting course material across the curricula, though, so novel contributions to core courses are also highly valued. Course design is primarily evaluated by peer

assessment from tenured faculty, both annually and cumulatively, to determine if the learning goals are meaningful and clearly articulated and if the content is rigorous, current, and relevant. Such peer assessments are supplemented by student assessments from the CIF evaluations, particularly the Component 1 score that measures Clarity and Organization.

Implementation is primarily evaluated by peer assessment from tenured faculty, particularly those who annually attend one or more of the course meetings. Evaluation considers whether the candidate cultivates a stimulating environment that effectively uses students' time to stimulate learning, creative thinking, and analytical skill development. Where appropriate, student enrollment and performance in subsequent (elective and required) courses and undergraduate research opportunities is used to help evaluate whether students develop the required knowledge and skills in the course and whether some develop a genuine interest in the material. Peer assessments are supplemented by student assessments from the CIF evaluations, particularly the Component 3 score that measures Stimulation of Learning, the reported Degree of Intellectual Challenge, and the reported Time Studying Outside of Class.

Evaluation of student work is primarily evaluated by peer assessment from tenured faculty. These assessments determine whether appropriate and rigorous standards are employed to evaluate student work toward achievement of the course learning goals and whether proper feedback is provided to students. Such peer assessments are supplemented by student assessments from the CIF evaluations, particularly the Component 2 score that measures Guidance and Support.

Student perceptions are evaluated by consideration of all of the CIF component scores, particularly the Composite score, and all of the characteristics of the course, including the type of course, enrollment, historical student perceptions, and the candidate's proactive revisions to the course presentation in response to the previous CIF reports. Emphasis is placed on the complete record of scores as opposed to scores from any individual course offering. In some cases, the Department may, with the candidate's permission, survey students/alumni who have completed the course to determine if/how their perceptions have changed with time.

In terms of mentoring, the Department expects the candidate to have made significant contributions to the advising and mentoring of both graduate and undergraduate students outside the normal responsibilities pertaining to any specific course. At the graduate level, mentoring is evaluated by peer assessment of the candidate's participation in the evaluation, recruitment, and development of graduate students. Graduate student mentoring can be most effectively evaluated by the candidate successfully advising students through the Ph.D. degree (including completion of requirements for degree such as the Qualifying examination, co-authoring scholarly publications with these students, student participation in conferences and meetings, and so forth), serving on the committees of graduate students advised by other faculty, and contributing to the evaluation of graduate students via Qualifying and Candidacy examinations. At the undergraduate level, mentoring is evaluated by peer assessment of the candidate's participation in regular undergraduate advising and other engagement with undergraduates through activities such as, but not limited to, advising undergraduate researchers, undergraduate publications and/or theses, student clubs, and entries into national engineering competitions.

Service to the Profession and University

The Department expects the candidate to have engaged with and made contributions to his/her research community beyond the technical research and scholarship contributions evaluated as described above. Baseline engagement is expected to include membership in the professional society or societies appropriate to the candidate's research activities. Contributions to the research

community can be demonstrated by reviewing journal and conference paper submissions, reviewing proposals to funding agencies, giving presentations at conferences or workshops, chairing sessions at conferences or workshops, assisting with the organization of conferences or workshops, participating on technical committees, and other service-oriented activities.

The Department expects the candidate to have engaged with and made contributions to the intellectual and academic life of the community of scholars within the university beyond the research and teaching contributions evaluated as described above. Baseline engagement should include regular participation in departmental meetings, seminars, and hiring activities. Additional contributions to the university community can be demonstrated by serving on formal committees, participating in undergraduate and graduate research forums, meeting with prospective undergraduates, giving laboratory tours or research presentations to visitors, participating in orientation events, and other service-oriented activities. In addition to the formal mentoring expectations described above, informal mentoring is also assessed and valued, particularly in cases in which a number of undergraduates gravitate to the candidate as a mentor because of his/her skills, background, gender, ethnicity, etc. The candidate is highly encouraged to appropriately document any informal activities service activities that he/she engages in. The Department expects the candidate's internal service contributions to be relatively modest since greater emphasis is placed on research, teaching, and service to the research community at this stage of his/her career. Overall, the candidate should have demonstrated the ability to effectively engage with peers, students, and staff in constructive ways that enhance the learning environment and the Notre Dame community.

Revised and Approved by the AME Faculty: May, 2, 2019

Appendix F

University of Notre Dame Department of Aerospace and Mechanical Engineering

Criteria and Standards for Promotion to Professor:

Three primary criteria are considered for promotion to the rank of Professor in the Department of Aerospace and Mechanical Engineering: Research/Scholarship, Teaching/Mentoring, and Service to the Profession/University. Promotion to the rank of Professor requires that one should maintain excellence in teaching and gain widespread recognition as a scholar. The overall assessment of the candidate is based upon achievements associated with each of the above elements with respect to the standards. The balance of activities and performance relative to the standard in each of these three elements will depend on the individual candidate and his/her career path as a scholar and educator. However, all candidates for promotion to Professor must have high-quality contributions relative to the standards of each element that clearly signify that he/she has attained national or international recognition in his/her field, the potential for which was the basis of his/her previous promotion and tenure.

Research and Scholarship

Scholarly accomplishments, as evaluated by an internal peer review and an external review by leaders in the candidate's field, should indicate that the candidate's research addresses important problems in the field, is characterized by consistent high quality, has gained widespread recognition as having had a positive influence on the issues addressed, and is positioned to continue having impact on important problems in the future. Evaluation of the quality, visibility and impact of a research program in this regard is based on a range of metrics, including, but not limited to 1) **scholarly publications** (journal papers, conference/workshop/symposia papers, books, book chapters, monographs and conference presentations), 2) **intellectual property** (pending or awarded patents; when appropriate), 3) **research funding** (funds secured from both internal and external sources necessary to sustain his/her research activities), 4) **external recognitions** (internal and external awards, invited lectures, journal editorships, leadership in relevant external societies, etc.), and 5) **infrastructure development** (unique physical facilities, pieces of equipment, computer codes, or other novel entities created or modified by the candidate (and his/her research group) while at ND that enable him/her to conduct research; when appropriate).

Because the fields of aerospace and mechanical engineering are extremely broad, though, no single standard in any of these categories is universally applicable to all candidates. Thus, the metric of evaluation is that the candidate's scholarly productivity is consistent with the candidate's specific field at top-tier research universities. This assessment is made based upon the accomplishments reflected in the candidate's record and as evaluated by 1) an internal peer assessment and 2) external assessment by leaders in the field, both of which will be informed by metrics related to the utility of the scholarly accomplishments (citations within major citation databases, downloads/reads, leadership of larger, collaborative research projects, etc.). The Department recognizes that, in cases where research is primarily sponsored by industry and/or Department of Defense contracts, publication may be limited due to contractual or intellectual property obligations. In such cases, the CAP will identify other metrics or achievements that can be used to evaluate the quality and quantity of the scholarly accomplishments, including the

development of new research facilities, translation of research accomplishments to industrial and/or commercial uses, and/or long-standing industrial partnerships.

Teaching and Mentoring

The Department expects the candidate to have continued making significant contributions to teaching at both the undergraduate and graduate levels and to have maintained excellence in this regard since the previous promotion. Evaluation of effective instruction at both the undergraduate and graduate levels is based on course design, implementation, evaluation of student work, and student perceptions. The means of evaluation are identical to those employed for the promotion to Associate Professor with tenure, but with more emphasis on leadership and curriculum development relative to classroom evaluations. At this level, the Department still values a candidate's willingness to improve his/her teaching effectiveness in response to both peer and student assessments, as well as to pursue professional development opportunities (workshops, on-campus resources etc.). With candidates for promotion to Professor, the Department also highly values other contributions to meet the needs of its instructional mission that sometimes differ from the contributions expected of untenured faculty. These may include, but are not limited to, teaching multiple undergraduate courses that contribute to one or both of the degree programs, teaching courses at the periphery of the candidate's expertise, developing new courses, instructional mentoring and/or peer evaluation of untenured faculty members, and/or any other activity that improves the educational experience of the undergraduate and graduate students in the Department. Candidates for promotion to Professor should take an active role in evaluating the effectiveness of the curriculum and contributing to continuous improvement through restructuring existing courses, proposing new course sequences, or developing and/or implementing new teaching and learning pedagogies.

In terms of mentoring, the Department expects the candidate to have continued making significant contributions to advising and mentoring both graduate and undergraduate students since the last promotion and to have begun serving as a mentor to untenured faculty members. At the graduate level, mentoring is evaluated by peer assessment of the candidate's participation in the evaluation, recruitment, and development of graduate students. Graduate student mentoring can be most effectively evaluated by the candidate successfully advising students through the Ph.D. degree (including co-authoring scholarly publications with these students), serving on the committees of graduate students advised by other faculty, and contributing to the evaluation of graduate students via Qualifying and Candidacy examinations. At the undergraduate level, mentoring is evaluated by peer assessment of the candidate's participation in regular undergraduate advising and other engagement with undergraduates through activities such as, but not limited to, advising undergraduate researchers, undergraduate publications and/or theses, student clubs, and entries into national engineering competitions. Informal mentoring is also assessed and valued, particularly in cases in which a number of undergraduates gravitate to the candidate as a mentor because of his/her skills, background, gender, ethnicity, etc.

Service to the Profession and University

Candidates for promotion to Professor should have engaged with and made significant contributions to his/her research community beyond the technical research and scholarship contributions evaluated as described above. Outside of the external service expectations associated with his/her previous promotion, the candidate should have attained stature as a leader in his/her research community as demonstrated by, but not limited to, journal editorships, sustained

participation in technical committees or other society-related activities, leadership in a scholarly society and/or technical committee, conference organization, regular contributions as a reviewer for journals and/or external funding agencies, and/or service on boards or as an advisor for projects that are related to the candidate's professional status.

The Department expects the candidate to have engaged with and made significant contributions to the intellectual and academic life of the community of scholars within the university beyond the research and teaching contributions evaluated as described above. The candidate should have actively participated in departmental, college and/or university governance through activities such as service on committees and/or engaged in leadership in the research or educational enterprises, service as a research and/or teaching mentor for untenured faculty members, and other service-oriented activities that demonstrate leadership. Exceptional levels of service could include serving as director of undergraduate or graduate studies in the Department, substantially contributing to undergraduate program evaluation and continuous improvement processes, and leading a large-scale research, educational, or outreach initiative. Overall, the candidate should have demonstrated the ability to effectively engage with peers, students, and staff in constructive ways that enhance the teaching and research environment and the Notre Dame community.

Revised and Approved by the AME Faculty: May, 2, 2019

Appendix G

**DEPARTMENT OF AEROSPACE AND MECHANICAL ENGINEERING TEACHING
EVALUATION SUMMARY FORM**

Professor: _____

Academic Year: _____

Reviewer: _____

Evaluation Date: ____/____/____

Courses considered in the evaluation: _____

1. Measures of Effectiveness (as per ACPET Evaluation of Teaching Guidelines)

a. Course Design:

Rating: | _____ | _____ | _____ | _____ |

Deficient

Marginal

Very Effective

Reviewer comments:

b. Implementation:

Rating: | _____ | _____ | _____ | _____ |

Deficient

Marginal

Very Effective

Reviewer comments:

c. Evaluation of Student Work:

Rating: | _____ | _____ | _____ | _____ |

Deficient

Marginal

Very Effective

Reviewer comments:

d. Student Perceptions:

Rating: | _____ | _____ | _____ | _____ |

Deficient

Marginal

Very Effective

Reviewer comments:

2. Instructor's Goals for Course or Teaching Improvements for the Next Year:

1.

2.

3.

3. Success in Achieving Last Year's Instructor's Goals:

1.

2.

3.

4. Chair's Meeting Comments:

Chair's Signature

____/____/____
Date of Meeting

Professor's Signature