

MINUTES

ADMINISTRATIVE UNIT OF THE SOUTHEASTERN SECTION AMERICAN SOCIETY FOR ENGINEERING EDUCATION APRIL 13, 1992

The annual business meeting of the Administrative Unit of the Southeastern Section of the American Society For Engineering Education was held after lunch on April 13, 1992 in the Greenway Room of the Omni International Hotel in Norfolk, VA. In attendance were:

Donald L. Cole	University of Louisville
Stanley N. Ihekweazu	SC State University
John T. Mason III	Tennessee Technological University
Mike May	University of SC - Aiken
Ken Murray	NC A & T State University
Celestine A. Ntuen	NC A & T State University

The meeting was called to order by the Vice Chairman, Donald Cole at 12:50 p.m. (The chairman, William Rey, was unable to attend). The minutes of the 1991 meeting were read by the Secretary, John T. Mason, and approved.


Discussion was encouraged concerning the agenda for the meeting next year. It was generally agreed that a Roundtable Discussion is good for the Administrative Unit. Two possible topics were suggested:

1. What to do with transfer students
2. Discussion of ABET requirements after presentation by EAC/TAC of ABET

Celestine A. Ntuen was elected secretary so the officers for 1992-93 are:

Chairman	Donald L. Cole
Vice Chairman	John T. Mason III
Secretary	Celestine A. Ntuen

The meeting adjourned at 1:20 p.m.


John T. Mason III, Secretary

MINUTES

ADMINISTRATIVE UNIT ROUNDTABLE DISCUSSION SOUTHEASTERN SECTION AMERICAN SOCIETY FOR ENGINEERING EDUCATION APRIL 13, 1992

The Administrative Unit Session of the Southeastern Section of the American Society for Engineering Education was held at 10:45 a.m. on April 13, 1992 in the Greenway Room of the Omni International Hotel in Norfolk, VA.

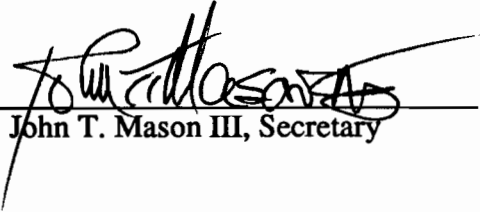
The attendees were:

Donald L. Cole	University of Louisville	502-588-7599
Stanley N. Ihekweazu	SC State University	803-536-7117
John T. Mason III	Tennessee Technological University	615-372-3172
Mike May	University of SC - Aiken	803-648-6851
Wayne Michie	Virginia Western Community College	703-857-7275
Don Morris	Virginia Tech	703-231-5726
Ken Murray	NC A & T State University	919-334-7737
Allan Shapiro	North Virginia Community College - Annandale	703-323-3187

Donald Cole, Vice Chairman, moderated the discussion which centered on three major topics.

1. **PROMOTION AND TENURE**
 - * three handouts (enclosed) outlined the procedures used at the University of Louisville, Clemson and Virginia Tech
 - * financial problems have slowed some early promotions
 - * some schools have formal plans for early retirement
 - * teaching loads vary from 9 to 12 hours
 - * some schools have in-class evaluations by students and faculty
2. **ABET**
 - * a handout (enclosed) covering a sample alumni survey was provided and has been used by Tennessee Tech for several years. Those interested in the FORTRAN program that evaluates the data can contact George Swisher at TTU - IN%"GMS8735"@TNTECH.BITNET".
3. **FUNDAMENTALS OF ENGINEERING**
 - * The administration is pushing for a closed book exam.

The session concluded at 12:05 p.m.


John T. Mason III, Secretary

UNIVERSITY OF LOUISVILLE

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(Revised September 1985)

SPEED SCIENTIFIC SCHOOL

GUIDELINES FOR PROMOTION, TENURE, AND MERIT EVALUATIONS

I. INTRODUCTION

The Redbook revision of 1977 requires units to develop policies on faculty promotion, tenure, and merit evaluations. These guidelines must conform to The Redbook and the policies on promotion and tenure must conform to the Minimum Guidelines document developed by the Faculty Senate. This document is intended to fulfill these requirements.

II. GENERAL CRITERIA AND PROCEDURES FOR PROMOTION AND TENURE

A. Scope

The criteria and procedures in this document apply on a school-wide basis, except that established departments may adopt uniform procedures for processing their promotion and tenure evaluations and recommendations. When and if such departmental procedures are developed, they should be made an addition to this document. Speed faculty not in an established department may vote to establish a (single) similar addendum for faculty at large.

B. General Criteria

The Redbook requires criteria to be established in the areas of teaching, research and creative activity, and service for tenure and in addition seniority for promotion. Unless otherwise specified, the Speed Scientific School will weigh the aspects of faculty performance in this order: (1) teaching (highest), (2) research and creative activity, (3) service, and (4) other. That is, teaching performance is considered to be more important than research performance, etc. In addition to the university

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criteria in The Redbook and Minimum Guidelines document, the Speed Scientific School will also consider:

1. Level of the highest degree, appropriate to job function,
2. Registration as a Professional Engineer or other forms of certification, where appropriate,
3. Cooperation with colleagues and rapport with students,
4. Overall professional development, including education and experience prior to University employment, and subsequent efforts to maintain and advance professional competency,
5. University leadership capability and experience,
6. Pursuit of sponsored research or other sponsored programs, and record of success in obtaining funding compared to peers, and,
7. Adherence to the Code of Ethics of the Accreditation Board for Engineering and Technology (ABET) and the AAUP Statement on Professional Ethics (page 15).¹

A positive record in these areas should strengthen a candidate's case for promotion or tenure. The last item is intended to define the area of consideration of professional misconduct as required by The Redbook.

¹Revised by ballot 12/13/78.

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C. General Procedures

The faculty member, administrative officer* or PAT committee chairman who initiated the review for promotion or tenure shall be responsible for compiling the evaluation file. Individuals under review may include any material they wish in their file, except that summaries should be substituted for voluminous material. Their administrative officer and other reviewers within the Speed Scientific School may also include other materials as long as they are made available to the individual and previous reviewers so that prior recommendations may be reconsidered.

Tenure and promotion files must be compiled with the aid of the faculty member under review and the faculty member must be able to add evidence before the file is advanced to the Office of the President (The Redbook 4.1.5.G; Minimum Guidelines document V.B.). A faculty member must be permitted to see substantive material in his or her tenure file, absent the identity of evaluators.²

A faculty member may request only one evaluation for early tenure.³

As previously stated, departmental faculties may develop individual procedures for processing promotion and tenure recommendations. If not, the general procedure in this paragraph will be used. The departmental tenure committee will consist of those faculty in the department who have tenure. The departmental promotion committee will consist of the faculty of higher rank than the individual under consideration. The recommendations of these committees will speak for the departmental faculty on the respective matters. Departmental faculty should take special care to review the individual's file and not assume that they are familiar with all of the person's work.**

*The terms "administrative officer", "chairman", and "chairperson" are meant to be equivalent. However, it is necessary that the Dean designate someone to assume this role for faculty not in an established department.

**Faculty who have appointments in more than one department should be evaluated by each department.

²Revised by ballot 9/28/79.

³Revised by ballot 9/28/79.

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After the departmental faculty have made their recommendation, the chairman will make a recommendation and will forward the file to the Promotion and Tenure (PAT) Committee whose charge is presented in Section VI. The committee will add its recommendation to the file and will forward the file to the Office of the Dean. The Dean of the Speed Scientific School will add a recommendation and will forward the file to the Office of the President. A schedule for these actions is presented in Section VI.

D. Support Data for Recommendations

Promotion and tenure recommendations at all levels shall be based on documented facts and written opinions. Data should be quantified where appropriate. Such evidence should permit recommendations on the most objective basis possible. Recommendations shall be in written form and presented with a clear and concrete explanation supported by the evidence in the evaluation file.

Possible methods of teaching evaluation include:

1. Questionnaire from all students in a class,
2. Questionnaire or letter from a sample of students,
3. Questionnaire or letter from a sample of alumni,
4. Class visitations by chairman or colleagues,
5. Complaints and comments spontaneously received by the chairman*, and
6. Others and combinations of the above.

The procedure chosen must be unbiased and capable of providing a defensible measure of proficiency. The choice of methods is delegated to the individual and the department with the following constraints. It is undesirable that Method 5 be given undue weight. Further, the results of a school-wide questionnaire system developed by the Instruction and Learning Committee and approved by the faculty must be a part of the evaluation. These questionnaires must be gathered and tabulated under secure conditions. While the questionnaires are not to be

*These shall be documented with signatures and discussed with the faculty member soon after they are received.

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released except to the individual and the department chairman, a summary of the results, developed jointly by the chairman and the individual, will form a part of the file used for promotion and tenure evaluations. The questionnaires themselves are considered to be too voluminous for inclusion in the file. Other aspects of instruction such as advising of students, thesis supervision, etc., should also be considered.

Research (or creative activity) evaluations should be based on documentary results from the research. Publications of all kinds, including technical reports, automatically provide this type of evidence. Verbal presentations may be evaluated in writing for the file by witness. Research in progress should likewise be documented by a colleague.

Evaluations of service should be done like those of research. Most commonly, service activities do not automatically produce documentary results. Thus, written statements by witnesses or colleagues evaluating such service may be obtained. Minor activities, such as committee work of short duration, should have a less formal, aggregate evaluation.

The faculty member, administrative officer, or PAT Committee chairman who initiated the nomination shall compile the evaluation file and shall include at least five reference letters from qualified persons who are familiar with the candidate's professional performance. At least two should be from sources not suggested by the candidate, and at least two should be from outside this university. However, the candidate must approve the use of any individual as a referee and may insist on the inclusion of reference letters from anyone.¹ A written evaluation of external reference letters shall be provided in the first recommendation letter placed in the file - normally that of the departmental committee. The faculty member under review may respond to these external reference letters.

E. Classification of Activities into Research and Service

The Minimum Guidelines document requires unit documents to classify faculty activities into the areas of teaching, research or creative activity, and service. This classification is vital since a null performance in an area can result in a denial of tenure or promotion. However, there are sure to be activities omitted from any list, no matter how lengthy.

¹Revised by ballot 9/28/79.

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Thus, the individual may propose a classification for any activity subject to a ruling of the PAT Committee. Generally, it is the intent of the Speed Scientific School that classifications be flexible according to the wishes of the candidate. Activities which are ambiguous may be classified in either area or partly in both as desired by the candidate as long as the PAT Committee agrees that the classification is reasonable. Examples include:

1. Advising and counseling of students
(Teaching/Service)
2. Development of course or laboratory materials including textbooks
(Teaching/Research/or Creative Activity)
3. Supervision of student research
(Teaching/Research)
4. Supervision of Teaching Assistants
(Teaching/Service)
5. Industrial consulting or sponsored research
(Research/Service)
6. A presentation before a local group
(Teaching/Research/Service)
7. A paper on education methodology
(Teaching/Research)
8. Professional Society activity
(Service)

Most forms of administration and committee work will be classified as service. All forms of research and creative activity will be acceptable for review. Reviewers will evaluate its quality and relevance in their recommendations.

The administrative officer is responsible for rating whether an individual's actual distribution of time on various activities is in the best interest of the School. However, the individual's own opinions should be carefully considered.

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III. CRITERIA FOR PROMOTION

The following represent criteria and minimum levels of achievement for promotion (or appointment) to the following ranks:

- A. Assistant Professor - The candidate shall have demonstrated proficiency in one of the areas of teaching, research (or creative activity) or service and shall show promise of achieving proficiency in each by the time a tenure review must be made.
- B. Associate Professor - The candidate shall have demonstrated proficiency in teaching, research (or creative activity), and service and shall show promise of continuing proficiency in all of these areas.
- C. Professor - The candidate shall meet the requirements for promotion to associate professor above and shall have demonstrated superior achievement in either teaching or research (or creative activity). There must be promise of continued superior performance.

Achievement of these minimum levels does not imply that a promotion must be made. The level of performance above the minimum must be considered as well as the general criteria listed in Section II. Candidates should be considered individually and not in competition with others. Seniority* is a criterion for all promotions, but lack of seniority alone shall not be grounds for a negative recommendation.

For promotion to a given rank, the number of faculty in that rank, or the number of candidates for that rank, either in the department or the school, should not work to the detriment of the faculty member being considered for promotion. In addition, the gap between the salary of the faculty member being recommended and the average salary of the next higher rank should not work to the detriment of the faculty member. Where feasible, promotion to the rank of Associate Professor should be synchronized with the award of tenure.¹

IV. CRITERIA FOR TENURE

As a minimum, candidates shall have demonstrated proficiency in teaching, research (or creative activity), and service to qualify for a grant of tenure. They must also show promise of continuing proficiency. As in the case of promotion, achievement of these minimum levels does not necessarily result in a grant of tenure

*The term seniority includes seniority in the profession (including all forms of professional practice), at the university, and in the present rank.

¹Revised by the Faculty 12/13/84.

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since other factors (Section II) must be considered. In considering the granting of tenure, administrative performance will not be a significant factor. Since it is expected that the full probationary period, as defined in Section 4.1.6 of the Redbook, will normally be served, only those faculty members with truly outstanding records of performance should be considered for early tenure.¹

V. CRITERIA FOR SPECIAL FACULTY

The criteria for promotion and tenure listed previously apply to all Speed faculty, except for the exceptions made here for three special sets of faculty.²

A. Administrative and Service Faculty

Administrative and Service Faculty are those who regularly spend half or more of their time in service activities. Present examples include deans, department chairmen, cooperative education faculty*, directors, etc. It seems only reasonable to evaluate such faculty mainly on the basis of their primary assignment. Otherwise, for example, an assistant dean who is an assistant professor would find it virtually impossible to be promoted to associate professor. Therefore, Administrative and Service faculty will be evaluated on the criteria in the priority: (1) service (highest), (2) teaching, (3) research (or creative activity), and (4) other. The area of superior achievement for promotion to full professor may be in service for this category of faculty. It should be noted that proficiency in teaching and research (or creative activity) is still required. Administrative titles (instead of faculty titles) should be given to those whose involvement in teaching and research (or creative activity) is minimal. Administrative and Service Faculty are encouraged to teach at least one course per year.

B. Individual Criteria

Individual criteria for a particular position may be prepared in letter form by the Dean of the Speed Scientific School. To provide faculty input, the letter requires the approval of the PAT Committee. A letter from the individual accepting the terms is required. These letters will not form a part of this document, but will be maintained in the files of the Office of the Dean and the PAT Committee. Individual criteria must meet The Redbook and Minimum Guidelines document standards.

*See addendum for Cooperative Education faculty passed 6/13/83.

¹Revised by the Faculty 12/13/84.

²Revised by ballot September 17, 1985

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C. Engineering Technology and Graphics Faculty¹

The following different criteria will be utilized for evaluating Engineering Technology and Graphics faculty in recognition of the different objectives and educational preparation of these faculty.

(a) The Master's degree is the terminal degree in accordance with Accreditation Board For Engineering And Technology (ABET) criteria.

(b) Teaching performance is rated as the highest priority for evaluation, and good teaching is recognized as the principal objective for the faculty. Hence, research and/or creative activity should be oriented to further this objective. Service criteria will remain the same.

VI. ORGANIZATION OF THE PROMOTION AND TENURE COMMITTEE

A. Membership

1. Each department will be represented by an elected member. An additional member will represent all Speed faculty not represented above. Chairmen are ineligible to be committee members. All members of the committee will be above the rank of instructor. A chairman shall be elected by the committee from among its members each year during the Fall Semester, at a meeting called by a member designated during the previous Spring.
2. The term of office for committee members shall be three years. To provide continuity, the terms will be staggered (by lot, if necessary) such that each year the terms of about one-third of the members will expire. Any member is eligible for reelection.
3. When a vacant position occurs, faculty members represented by that position shall present the names of two nominees from among themselves to the Speed School faculty, and one of them will be elected to fill the vacancy.
4. Elections are to be conducted by the Speed School Election Committee by mail ballot.

¹Revised by ballot September 17, 1985

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5. Regular elections to fill vacancies created by expired terms of office are to be held in the Spring Semester prior to the time of the vacancy. Special elections to fill other vacancies will be held within one month of the date the vacancy occurs. Members elected at special elections shall serve the remainder of the relevant term.
6. The term of new members shall begin on July 1.
7. At the time of adoption of this document, the existing Promotion Committee will become the New Promotion and Tenure Committee. Departmental representatives who have remaining terms will serve out those terms on the PAT Committee. The interdisciplinary faculty representative will become the representative for faculty not represented by a departmental member*. With the new representative from Industrial Engineering, the initial size of the committee will be seven.

B. Specific Responsibilities and Authorization of the Committee

1. The committee shall serve as the representative faculty body on all matters pertaining to promotion and tenure. When appropriate, it will advise the Dean and the faculty and prepare courses of action.
2. The committee will function in an advisory capacity. None of its recommendations for promotion and tenure will be considered binding on the Dean.
3. The committee members have the right to bring before the committee any matter relating to the promotion and tenure.
4. The committee has the right to obtain information as complete as possible on any matter brought before it.
5. The committee shall obtain all available information required by The Redbook about a candidate for promotion or tenure.
6. The committee shall base its recommendations on a comparison of the record of accomplishment in the evaluation file to the criteria which appear in The Redbook, Minimum Guidelines document, this document and its

*These faculty are now called Academic Support Faculty. (see Bylaws Article VII.E.)

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addenda. Members should not act as advocates for any person or constituency, but rather as judges of the meeting of criteria. It should be emphasized that salary information relative to the individual and to the rank to which the individual is being recommended will not be considered by the committee since it is irrelevant to the criteria for promotions and tenure.

7. The committee shall grant a hearing to any faculty member on matters pertaining to promotions and tenure.
8. The committee meetings shall be held strictly confidential and the committee's recommendations will be given only to the Dean, the individual affected by the recommendation, and his or her administrative officer. The recommendation will also become a part of the promotion or tenure file.
9. The committee shall act on any claim for promotion or tenure brought before it by a faculty member or his/her administrative officer. Self initiation of the claim shall not work to the detriment of the candidate. However, the committee will not act upon a request for promotion or tenure without prior referral to the departmental faculty and administrative officer for recommendations. Such recommendations must be made in a timely manner.
10. The committee shall, with the concurrence of the individual involved, initiate similar promotion review for any faculty member it deems deserving of such review, if such action is not initiated from another source.
11. Whenever a promotion or tenure evaluation must be made for a member of the PAT Committee, that member shall resign and be replaced according to Section VI.A.5.
12. Candidates for promotion and tenure may challenge the participation of no more than two members of the PAT Committee. If all of the remaining members agree that the challenged members are prejudiced against the candidate, they shall not participate in the recommendation.

C. Schedule

1. The majority of the cases the committee considers relates to promotion and tenure effective on July 1. Steps in the evaluation procedure are described below and begin on September 15. Each year, after the Central Administration

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has notified the Dean of the final date for receiving the files of nominees from Speed School, a schedule will be set for the remaining evaluation steps. The schedule will be formulated by the Dean in consultation with the Promotion and Tenure Committee and Department Chairs. The schedule will be published no later than one week prior to step b. Promotion and tenure reviews may not be stopped except with the permission of the faculty member involved.

- a. September 15 - The committee will receive memoranda from administrative officers indicating the names of faculty members who are under consideration for promotion or tenure by the departmental faculty. A copy of the memorandum will also be transmitted to the Office of the Dean, and to the individual faculty member under consideration.
- b. The committee will receive memoranda from all faculty members who plan to submit claims for promotion or tenure on their own behalf. A copy of the memorandum will also be transmitted to the Office of the Dean, and to the cognizant administrative officer.
- c. The committee will issue memoranda to the cognizant administrative officers indicating that it plans to initiate a promotion review in accordance with Section VI.B.10. A copy of the memorandum will also be transmitted to the Office of the Dean and to the concerned faculty member.
- d. The committee will forward a complete evaluation file to each cognizant administrative officer for cases initiated by the PAT Committee or by the individual under consideration. A copy of the memorandum of transmittal shall also be forwarded to the Office of the Dean and to the faculty member.

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- e. If the PAT Committee has not received a complete evaluation file from subject claimant prior to the cutoff date, the committee will transmit a memorandum to that effect to the cognizant administrative officer, to the Office of the Dean and to the individual faculty member concerned.
- f. The committee will receive all evaluation files initiated by administrative officers.
- g. The committee will have returned to them by the administrative officers all evaluation files which had previously been channeled through the PAT Committee by claimants for self-initiated promotion or tenure, or which had been initiated for promotion review by the PAT Committee. A separate confidential copy of both the recommendation of the departmental faculty, and of the chairman will be forwarded to the individual faculty member. The Office of the Dean will not be informed of either the departmental faculty's or chairman's recommendations at this juncture, but shall receive a copy of the letter of transmittal.
- h. The committee will make its recommendations on the nominations and claims for promotion and tenure, and will forward the evaluation file to the Office of the Dean. A confidential copy of their recommendation will be forwarded to the individual faculty member under consideration and to the cognizant administrative officer.
- i. The committee will be advised by the Dean of all actions taken on the committee's recommendations, and will be given an opportunity to respond for

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placement in the file before it is sent to the Office of the President.

- j. Each individual being considered for promotion or tenure will receive a confidential copy of the Dean's recommendation to the Office of the President. The cognizant administrative officer will also receive a copy.
 - k. The Dean will forward the files to the Office of the President.
2. It is recognized that in certain cases a nomination or a claim for promotion or tenure which is to be effective at a time other than July 1 may be received by the committee. In such cases, the committee will make its recommendation within two months from the date it receives the nomination or claim. One month after the committee's recommendation is made, the Dean will inform in writing the committee, the faculty member, and his or her administrative officer of the Dean's recommendation.
 3. The Committee shall make a written report to the Faculty of its activities annually. These annual reports should be submitted to the President of the Faculty Council before July 1, of each year.

VII. MERIT EVALUATIONS

A merit review system consistent with The Redbook and the following, shall become effective upon approval by a majority of all of the faculty in a mail ballot and may be modified by the same process.

Faculty should receive a formal evaluation from their chairman annually. At a minimum this evaluation should consist of an interview and a memo stating a rating of teaching, research (or creative activity), and service contributions of the previous year with an indication of possible areas of improvement. Faculty may rebut the memo for the file. Faculty not in an established department should be rated by the designated dean. Assistant deans, associate deans, and department chairmen should be rated annually by the Dean of the Speed Scientific School.

Merit reviews for probationary faculty will address the issue of progress toward tenure. Specifically, chairmen shall provide a

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written statement as part of the review of what improvements must be made before tenure would be granted. Departmental tenure committees should participate in this process as advisors to the chairmen or may issue separate written statements to the individual.

Written evaluations of teaching effectiveness must be made at the midpoint of the probationary period for tenure, when tenure or promotion is considered, and periodically until a faculty member becomes a full professor.¹

VIII. AMENDMENT

Amendments to this document may be approved by the Speed School faculty. The vote will be made by mail ballot after discussion at a faculty meeting. Approval requires two-thirds of those voting but no less than a simple majority of all of the faculty.

¹Revised by ballot 9/28/79.

ACCREDITATION BOARD FOR ENGINEERING AND TECHNOLOGY (ABET)
CODE OF ETHICS OF ENGINEERS

The Fundamental Principles

Engineers uphold and advance the integrity, honor and dignity of the engineering profession by:

- I. using their knowledge and skill for the enhancement of human welfare;
- II. being honest and impartial, and serving with fidelity the public, their employers and clients;
- III. striving to increase the competence and prestige of the engineering profession; and
- IV. supporting the professional and technical societies of their disciplines.

The Fundamental Canons

1. Engineers shall hold paramount the safety, health and welfare of the public in the performance of their professional duties.
2. Engineers shall perform services only in the areas of their competence.
3. Engineers shall issue public statements only in an objective and truthful manner.
4. Engineers shall act in professional matters for each employer or client as faithful agents or trustees, and shall avoid conflicts of interest.
5. Engineers shall build their professional reputation on the merit of their services and shall not compete unfairly with others.
6. Engineers shall act in such a manner as to uphold and enhance the honor, integrity and dignity of the profession.
7. Engineers shall continue their professional development throughout their careers and shall provide opportunities for the professional development of those engineers under their supervision.

STATEMENT ON PROFESSIONAL ETHICS

The Statement on Professional Ethics was approved by the Council of the American Association of University Professors in April 1966, and endorsed by the Fifty-second Annual Meeting as Association policy.

Introduction

From its inception, the American Association of University Professors has recognized that membership in the academic profession carries with it special responsibilities. The Association has consistently affirmed these responsibilities in major policy statements, providing guidance to the professor in his utterances as a citizen, in the exercise of his responsibilities to students, and in his conduct when resigning from his institution or when undertaking government-sponsored research.¹ The Statement on Professional Ethics that follows, necessarily presented in terms of the ideal, sets forth those general standards that serve as a reminder of the variety of obligations assumed by all members of the profession. For the purpose of more detailed guidance, the association, through its Committee B on Professional Ethics, intends to issue from time to time supplemental statements on specific problems.

In the enforcement of ethical standards, the academic profession differs from those of law and medicine, whose associations act to assure the integrity of members engaged in private practice. In the academic profession the individual institution of higher learning provides this assurance and so should normally handle questions concerning propriety of conduct within its own framework by reference to a faculty group. The Association supports such local action and stands ready, through the General Secretary and Committee B, to counsel with any faculty member or administrator concerning questions of professional ethics and to inquire into complaints when local consideration is impossible or inappropriate. If the alleged offense is deemed sufficiently serious to raise the possibility of dismissal, the procedures should be in accordance with the 1940 Statement of Principles on Academic Freedom and Tenure and the 1958 Statement on Procedural Standards in Faculty Dismissal Proceedings.

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- 1964 Committee A Statement on Extra-Mural Utterances (Clarification of sec. 1c of the 1940 Statement of Principles on Academic Freedom and Tenure)
 - 1968 Joint Statement on Rights and Freedoms of Students
 - 1961 Statement on Recruitment and Resignation of Faculty Members
 - 1964 On Preventing Conflicts of Interest in Government-Sponsored Research
 - 1966 Statement on Government of Colleges and Universities

The Statement . . .

I. The professor, guided by a deep conviction of the worth and dignity of the advancement of knowledge, recognizes the special responsibilities placed upon him. His primary responsibility to his subject is to seek and to state the truth as he sees it. To this end he devotes his energies to developing and improving his scholarly competence. He accepts the obligation to exercise critical self-discipline and judgment in using, extending, and transmitting knowledge. He practices intellectual honesty. Although he may follow subsidiary interests, these interests must never seriously hamper or compromise his freedom of inquiry.

II. As a teacher, the professor encourages the free pursuit of learning in his students. He holds before them the best scholarly standards of his discipline. He demonstrates respect for the student as an individual, and adheres to his proper role as intellectual guide and counselor. He makes every reasonable effort to foster honest academic conduct and to assure that his evaluation of students reflects their true merit. He respects the confidential nature of the relationship between professor and student. He avoids any exploitation of students for his private advantage and acknowledges significant assistance from them. He protects their academic freedom.

III. As a colleague, the professor has obligations that derive from common membership in the community of scholars. He respects and defends the free inquiry of his associates. In the exchange of criticism and ideas he shows due respect for the opinions of others. He acknowledges his academic debts and strives to be objective in his professional judgment of colleagues. He accepts his share of faculty responsibilities for the governance of his institution.

IV. As a member of his institution, the professor seeks above all to be an effective teacher and scholar. Although he observes the stated regulations of the institution, provided they do not contravene academic freedom, he maintains his right to criticize and seek revision. He determines the amount and character of the work he does outside his institution with due regard to his paramount responsibilities within it. When considering the interruption or termination of his service, he recognizes the effect of his decision upon the program of the institution and gives due notice of his intentions.

V. As a member of his community, the professor has the rights and obligations of any citizen. He measures the urgency of these obligations in the light of his responsibilities to his subject, to his students, to his profession, and to his institution. When he speaks or acts as a private

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person he avoids creating the impression that he speaks or acts for his college or university. As a citizen engaged in a profession that depends upon freedom for its health and integrity, the professor has a particular obligation to promote conditions of free inquiry and to further public understanding of academic freedom.

**Approved by the Board of Trustees
February 25, 1985**

Revised by ballot September 17, 1985

WP# 0037D

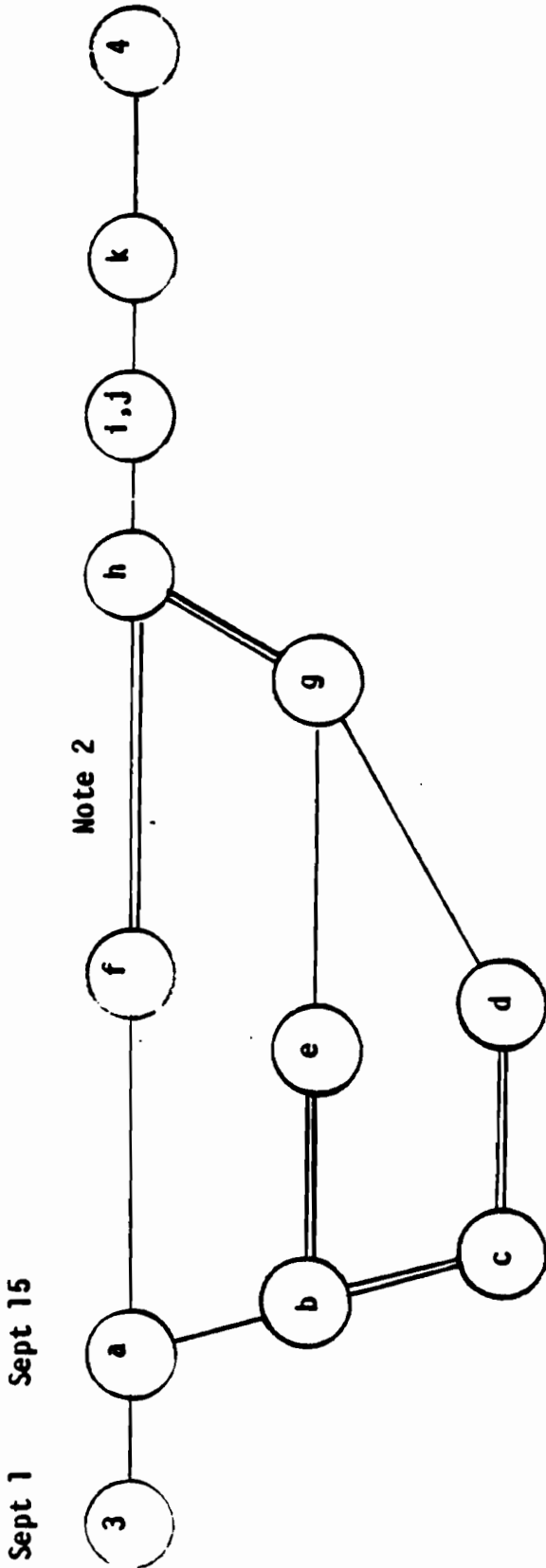


Fig. 1 Pert Chart of Speed PAT actions

- Notes:
1. Lower case letters are events defined in VI.C.1. Schedule.
 2. Double lines indicate Speed PAT Committee activities.
 3. Reminder to Department chairmen from Dean's Office.
 4. Deadline for Board Action.

College of Engineering

OFFICE OF THE DEAN



March 5, 1992

Prof. William K. Rey
Box 664
Tuscaloosa, Alabama 35486

Dear Professor Rey:

As you had requested, I am enclosing a copy of the tenure and promotion guidelines for the College of Engineering at Clemson. If I can attend the Southeastern Section meeting in Virginia, I will be prepared to discuss them.

Please note that these are minimum standards. Each department in the College has its own specifications which generally are more stringent than the College requirements.

Give my regards to Sam Gambrell.

Sincerely,

A handwritten signature in cursive script that reads 'Walter Castro'.

Walter E. Castro
Asst. Dean for Undergraduate Affairs

WEC/cd
encl.

GUIDELINES FOR PROMOTION, TENURE, APPOINTMENT, AND REAPPOINTMENT

College of Engineering
Clemson University

May 1982

PREAMBLE

The key goal of Clemson University's College of Engineering is excellence in engineering education, such that it achieves national and international recognition in teaching, research, and public service. Recognition of a college is attained primarily through the aggregate recognition of individual faculty as scholars and the College as a community of scholars. Promotion at various ranks must therefore be based on a faculty member's documented and recognized record of teaching and scholarly achievement that are demonstrably excellent. The standards to be imposed upon the promotion process must rigorously foster excellence and creative development in teaching, research, and service. The Clemson engineering faculty must demand of themselves that they represent only the finest among their professional and international peer groups if they are to further the University's quest for excellence.

* * * * *

I. General Comments

Information contained in these guidelines is supplied to faculty members and administrators in the College of Engineering in order to encourage consistency of interpretation and basic understanding of the mechanism and philosophy underlying performance reviews for promotion, tenure, appointment, and reappointment.

While the guidelines that follow are meant to make the procedures open, candid, and equitable, they were neither developed for nor should they be used to encourage a sameness, uniformity, or averaging of the faculty members of the College. Diversity of talent and personality consistent with standards of good character and professionalism are considered to be strengths of the University system.

The University, each of its academic colleges, and every department has defined both short- and long-term program objectives and goals. These were developed with particular consideration of individual faculty aspirations and goals. In matters of promotion and tenure, the progress toward and achievement of these objectives can be used as some indication of the faculty member's contribution to the overall College and University mission.

Promotion in academic rank of a faculty member is vested in the President through the Provost and Vice President for Academic Affairs of the University and is made upon recommendations forwarded through the appropriate administrative channels serving the University. The procedures and policies in the Faculty Manual for the University serve as the general foundation upon which

College of Engineering promotion criteria and procedures are to be considered. A candidate must satisfy the minimum requirements listed in the Faculty Manual in effect at the time of review.

II. Promotion to Full Professor

As stated in Part II, Section D, of the Faculty Manual, "the rank of Professor is granted on the basis of distinguished scholarly or creative publication, outstanding contributions to the University, and conspicuous success in all assigned areas of responsibility - teaching, research, and/or public service." International, national, and regional recognition of the scholarly achievements of College of Engineering faculty is of primary importance in developing and maintaining programs of excellence. The faculty member who earns the rank of full professor will have provided evidence of this recognition at the national level through his/her scholarly achievements and internal and external peer reviews of the individual's academic record.

The primary bases for promotion are the academic areas of achievement; undergraduate and graduate education, research and public service, including continuing education. Leadership activities in major administrative positions resulting in effective and efficient utilization of available resources, creation of new resources, and creative and innovative program development, and outstanding contributions to the University are valuable to the College and will be evaluated.

It should be recognized that not all faculty members necessarily merit promotion to full professor. The number of classes taught, the number of papers published, etc., serve only as a first measure of one's participation in certain areas. Superior capability, performance, and professional respect among peers both inside and outside the University are fundamental to promotion to full professor and shall supersede all numerical criteria in importance. These qualities are necessarily subjective, and judgment of them at the College level is the responsibility of the review committees, the department head, and the Dean.

The following guidelines are to be considered as a reasonable measure of competence and participation in the various activities of the College and are recommended to assist a Committee in evaluating the performance of a faculty member under consideration for promotion to full professor:

A. Minimum Experience Required

A minimum of nine years of relevant experience with five years at the equivalent of the associate professor level is normally required. Early promotion is appropriate where the candidate is outstanding and has already produced the achievements required for this position; the evidence of this achievement must perforce be quite rigorous. The appropriate terminal degree is generally expected. Relevant experience as applied to the College of Engineering, may include appropriate professional experience in either design or research. Credit for industrial experience or teaching prior to earning the appropriate terminal degree should be carefully evaluated for each candidate.

B. Academic Areas of Achievement

1. Undergraduate Instruction

- (a) The paramount purpose of a university is to extend the frontiers of knowledge and to transmit this knowledge to its students. Therefore, teaching is of prime importance in evaluating faculty members for promotion. In establishing excellence in teaching, the activities and accomplishments of the faculty member in creative and innovative program development and delivery must be substantiated. Evidence should include evaluations of teaching performance by peers and/or by present or former students. Documentation of innovations in teaching methodology or other notable educational contributions should be provided. Examples include development of new courses, programs, or curricula; preparation of laboratory manuals and supplementary class notes, or the authorship of textbooks.
- (b) Evidence of creative and innovative leadership in defining and managing research projects of undergraduate students, by a faculty member, is a valuable part of undergraduate instruction and should be considered.
- (c) Student advising is an important part of undergraduate teaching. Evidence of leadership in guiding students in their academic programs and helping them set meaningful career goals should be considered in the review process.

- (d) The candidate with true leadership qualities should have made other important contributions in an instructional capacity through program or concept development which have received recognition beyond Clemson University. Evidence of such contributions should be reviewed during consideration for promotion.

2. Research and Graduate Studies

- (a) Effective research relative to the teaching mission of the College supports the professional development of its faculty and graduate students. The most fruitful research results in direct benefits to the faculty member's profession and its practitioners through appropriate publications, conference presentations, and continuing engineering education short courses, workshops, and seminars. Evaluating research activities will involve the consideration of many factors, including quality, extent, and its relevance to the teaching and/or public service missions of the College.
- (b) Publication and presentation of research efforts are a direct result of an active and continued interest in research. A significant number of papers in nationally and internationally recognized, reviewed, or refereed publications is expected. Publications in proceedings, reports, papers presented at regional, national, and international meetings, invited presentations at other universities, and service rendered as an editor or referee for a technical publication are also to be evaluated in the review process.
- (c) Although active involvement and expertise in appropriate research and development should lead to financial support, evaluation of research competence and benefits to both a graduate program and the College based on dollar value alone may be misleading. However, over an extended period of time the amount of research funds secured and/or expended as a result of direct efforts on the part of the candidate faculty member is one measure of a faculty member's research effectiveness. Continuous support over a number of years is an excellent indication of the professional status of the individual being evaluated. Also, an orderly growth and development of a research program is important and is more meaningful than a few isolated incidents of excellence.

- (d) The candidate should have been the major advisor of a representative number of graduate students consistent with the number of graduate faculty and graduate students in the department. Generally, the candidate should serve as advisor for both Ph.D. and M.S. or M.Engr. students. Teaching excellence at the graduate level can be recognized as suggested in paragraph II.B.1.(a).
- (e) The interfacing of research effort with the industrial community is pertinent to the purpose of the College of Engineering. Cooperative industrial research will be evaluated with consideration given to the type of research, funding, and benefit to the College and those it serves. What must be clear is that the candidate is performing meaningful, productive, and continuing research and that these efforts are viewed with esteem by sources inside and outside the University.

3. Public Service and Continuing Education

- (a) Public service in many forms is an important mission of a land grant university and, as such, is to be recognized and appropriately evaluated. Leadership activities as a member of various local, state, and federal commissions and committees as well as direct service (consulting) with government agencies and other nonprofit institutions are a form these activities may take.
- (b) Continuing education is important to the University. Effort expended in these areas is recognized as being pertinent to a candidate's professional development and to the role of the College in the academic and industrial community. Not every candidate will have been able to contribute to this effort. However, wherever significant leadership contributions have been made, they will be recognized and assessed. Significant leadership contributions in continuing education are viewed as the development of short courses on various subjects, or the development and management of international, national, or regional conferences.

4. Professional Activities

- (a) All College of Engineering faculty members, as members of the engineering profession, are expected to make contributions to appropriate professional societies and organizations and are encouraged to maintain contact with engineering practice. Leadership service on national and regional committees, particularly as officers, and

active participation in a leadership role in professional and technical conferences serve to enhance both the candidate faculty member's and the College's standing in the professional community.

- (b) Faculty members may establish and maintain competence in professional practice in many ways, including experience prior to joining the faculty, summer employment, industrial or governmental internships, and professional consulting. It is incumbent on a candidate to document the relationship of such professional practice to his/her teaching, research, and/or public service activities.
- (c) Registration and/or special certifications relevant to the candidate faculty member's college assignment that attest to his/her technical abilities are to be recognized and given due credit in the evaluation.
- (d) Special honors and awards made to the candidate faculty member deserve attention, especially if they are the result of regional, national, or international consideration or competition.

5. University Service

- (a) All faculty members have a responsibility for participation in the governance of the University through service on departmental, college, and University committees. This service should be documented, and evidence of leadership and contributions to the enhancement of the department, college, and University will be evaluated and recognized.
- (b) Other service activities contributing significantly to the mission of the department, college, or University (e.g., faculty advisor for student professional society, or department graduate coordinator) will also be evaluated and recognized.

6. Administrative Activities

- (a) Leadership activities in major administrative positions resulting in effective and efficient utilization of available resources, creation of new resources, and creative and innovative program development, are valuable to the College and will be evaluated.

C. Peer Review

Evidence of local, national, and/or international recognition of the quality of an individual's activities shall be provided as an indication of the quality of such activities.

III. Promotion to Associate Professor or Assistant Professor

The minimum requirements for these ranks are in the current edition of the Faculty Manual. The guidelines for promotion to full professor can be used with the alteration of the required levels of achievement in the various areas. It is appropriate to keep in mind that promotion to full professor is made on the basis of an acceptable level of achievement by the candidate faculty member. Promotions to assistant and associate professor levels are based heavily on the faculty member's potential to attain such levels of accomplishment. Substantive evidence should be presented to document potential.

IV. Tenure

Tenure is to be awarded to those faculty whose accomplishments have been of outstanding quality and whose potential for sustaining these contributions in the future has been demonstrated. The granting of tenure means that the department is making a long-term commitment to the recipient in terms of those teaching, research and public service proficiencies, and interest areas possessed by the faculty member. Insofar as possible, the department shall consider its goals and the contribution that the faculty member brings to the achievement of these goals.

V. Appointments and Reappointments

Departments should establish their own criteria for appointment and reappointment. A faculty member appointed at the level of professor or associate professor would be expected to meet the criteria for promotion to that level.

All nontenured faculty must receive letters of reappointment or nonreappointment as stated in the Faculty Manual. All recommendations for appointment or reappointment must come from peer evaluation by a departmental faculty. Such recommendations should be based on a faculty member's past performance in his/her present role as well as his/her potential for future advancement and contribution to the College of Engineering and to the University.

VI. Procedural Matters

All faculty members who are eligible for reappointment or for consideration for the award of tenure, or who wish to be considered for promotion, should have on file a current dossier for use by the peer faculty evaluation committee. It is recommended that the dossier contain the following information:

1. A standard College of Engineering résumé.
2. A listing of the faculty member's primary assignments.
3. A list of recommended internal and external peer reviewers.
4. Any other evidence of scholarly achievement that the faculty member wishes to include.

After evaluation of the candidate, including review of the material in the dossier and relevant material or recommendations from his/her peers both inside and outside the University, the committee will formulate a written recommendation with supporting documentation which shall be forwarded to the faculty member's department head. The department head shall forward both his/her and the review committee's evaluation and recommendation to the Dean for consideration. The department head shall also communicate his/her evaluation and recommendation to the review committee and shall inform the affected faculty member in writing of the results of the peer review and of his/her recommendation. The Dean may wish to form an advisory committee to assist him/her in the review before making a final recommendation. The Dean shall make his/her recommendation to the Provost based on a review of the departmental recommendations and of the candidate's qualifications and shall forward the complete file to the Provost.

JCJ:nr/5/21/82



VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Blacksburg, Virginia 24061-0219

DEPARTMENT OF ENGINEERING SCIENCE AND MECHANICS

FACSIMILE: (703) 231-4574

April 22, 1991

~~For~~
63-331-6241

Dr. William K. Rey
Assistant Dean for Undergraduate Programs
College of Engineering
The University of Alabama
Tuscaloosa, AL 35487-0200

703-231-651

Dear Dr. Rey:

Enclosed is a copy of a report, part of which we use in our promotion and tenure deliberations. We use a modified form of Appendix A. I hope you find the report useful.

Sincerely,

Don H. Morris

Don H. Morris
Professor and Assistant Head

DM:pb

Appendix A

Classroom Observation Worksheet

Instructor _____ Course _____

Date _____ Observer _____

Directions: Below is a list of instructor behaviors that may occur within a given class or course. Please use it as guide to making observations, not as a list of required characteristics. When this worksheet is used for making improvements to instruction, it is recommended that the instructor highlight the areas to be focused on before the observation takes place.

Respond to each statement using the following scale:

not
observed
1

more emphasis
recommended
2

accomplished
very well
3

Circle the number at the right that best represents your response. Use the comment space below each section to provide more feedback or suggestions.

Content Organization

not <u>observed</u> 1	more emphasis <u>recommended</u> 2	accomplished <u>very well</u> 3
-----------------------------	---	---------------------------------------

- | | | | |
|--|-----|-----|-----|
| 1. Made clear statement of the purpose of the lesson | -1- | -2- | -3- |
| 2. Defined relationship of this lesson to previous lessons | -1- | -2- | -3- |
| 3. Presented overview of the lesson | -1- | -2- | -3- |
| 4. Presented topics with a logical sequence | -1- | -2- | -3- |
| 5. Paced lesson appropriately | -1- | -2- | -3- |
| 6. Summarized major points of lesson | -1- | -2- | -3- |
| 7. Responded to problems raised during lesson | -1- | -2- | -3- |
| 8. Related today's lesson to future lessons | -1- | -2- | -3- |

Comments:

	<u>not observed</u> 1	<u>more emphasis recommended</u> 2	<u>accomplished very well</u> 3
<u>Presentation</u>			
9. Projected voice so easily heard	-1-	-2-	-3-
10. Used intonation to vary emphasis	-1-	-2-	-3-
11. Explained things with clarity	-1-	-2-	-3-
12. Maintained eye contact with students	-1-	-2-	-3-
13. Listened to student questions and comments	-1-	-2-	-3-
14. Projected nonverbal gestures consistent with intentions	-1-	-2-	-3-
15. Defined unfamiliar terms, concepts, and principles	-1-	-2-	-3-
16. Presented examples to clarify points	-1-	-2-	-3-
17. Related new ideas to familiar concepts	-1-	-2-	-3-
18. Restated important ideas at appropriate times	-1-	-2-	-3-
19. Varied explanations for complex and difficult material	-1-	-2-	-3-
20. Used humor appropriately to strengthen retention and interest	-1-	-2-	-3-
21. Limited use of repetitive phrases and hanging articles	-1-	-2-	-3-

Comments:

	<u>not observed</u> 1	<u>more emphasis recommended</u> 2	<u>accomplished very well</u> 3
<u>Instructor - Student Interactions</u>			
22. Encouraged student questions	-1-	-2-	-3-
23. Encouraged student discussion	-1-	-2-	-3-
24. Maintained student attention	-1-	-2-	-3-
25. Asked questions to monitor students' progress	-1-	-2-	-3-
26. Gave satisfactory answers to student questions	-1-	-2-	-3-
27. Responded to nonverbal cues of confusion, boredom, and curiosity	-1-	-2-	-3-

	<u>not observed</u> 1	<u>more emphasis recommended</u> 2	<u>accomplished very well</u> 3
28. Paced lesson to allow time for note taking	-1-	-2-	-3-
29. Encouraged students to answer difficult questions	-1-	-2-	-3-
30. Asked probing questions when student answer was incomplete	-1-	-2-	-3-
31. Restated questions and answers when necessary	-1-	-2-	-3-
32. Suggested questions of limited interest to be handled outside of class	-1-	-2-	-3-
Comments:			

Instructional Materials and Environment

	<u>not observed</u> 1	<u>more emphasis recommended</u> 2	<u>accomplished very well</u> 3
33. Maintained adequate classroom facilities	-1-	-2-	-3-
34. Prepared students for the lesson with appropriate assigned readings	-1-	-2-	-3-
35. Supported lesson with useful classroom discussions and exercises	-1-	-2-	-3-
36. Presented helpful audiovisual materials to support lesson organization and major points	-1-	-2-	-3-
37. Provided relevant written assignments	-1-	-2-	-3-
Comments:			

Content Knowledge and Relevance

<u>not</u> <u>observed</u>	<u>more</u> <u>emphasis</u> <u>recommended</u>	<u>accomplished</u> <u>very well</u>
1	2	3
-1-	-2-	-3-
-1-	-2-	-3-
-1-	-2-	-3-
-1-	-2-	-3-
-1-	-2-	-3-
-1-	-2-	-3-
-1-	-2-	-3-

- 38. Presented material worth knowing
- 39. Presented material appropriate to student knowledge and background
- 40. Cited authorities to support statements
- 41. Presented material appropriate to stated purpose of course
- 42. Made distinctions between fact and opinion
- 43. Presented divergent viewpoints when appropriate
- 44. Demonstrated command of subject matter

Comments:

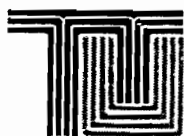
45. What overall impressions do you think students left this lesson with in terms of content or style?

46. What were the instructor's major strengths as demonstrated in this observation?

47. What suggestions do you have for improving upon this instructor's skills?

**Tennessee Technological University
College of Engineering**

ALUMNI SURVEY



Fall 1989

TENNESSEE TECHNOLOGICAL UNIVERSITY
 COLLEGE OF ENGINEERING
 ALUMNI SURVEY FOR ABET RE-ACCREDITATION
 FALL 1989

Please check one answer per question.

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1. I consider my engineering education at Tech to be adequate for the position(s) in which I have served.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The program reflected engineering practices which were prevalent when I graduated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The program prepared me for additional study as engineering practices changed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I believe the level of mathematics studied was adequate for the position(s) in which I have served.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. The content of the humanities and social science courses was right for me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I experienced very little difficulty in making the transition from Basic Engineering (Freshman Engineering)--or from another school--to my major area of study at Tech.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. I generally feel the program was too rapidly paced. I would have preferred a more spread-out curriculum even if it would have taken more time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I would have benefited by having one or more courses which specifically taught oral and written communication skills.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. I believe cooperative education should be a required part of the program.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. It is my opinion that there was a good balance between the teaching of the "how" (application) and the "why" (theory).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. The facilities were adequate to meet instructional needs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. The equipment was adequate to meet instructional needs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Generally speaking, the engineering faculty provided high quality instruction.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. The administrative officers of the College (Departmental Chairpersons and Deans) were responsive to my needs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The following service units of the University were responsive to my needs:					
15. Admissions Office	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Records Office	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Business Office	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Placement/Co-op Office	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Computer Center	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Housing Office	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Library	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CONTINUED ON OTHER SIDE.

- | | Strongly Agree | Agree | Undecided | Disagree | Strongly Disagree |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 22. I believe that all seniors should be required to <u>take</u> the EIT Exam (Fundamentals of Engineering Exam) prior to graduation. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 23. I believe that all seniors should be required to <u>pass</u> the EIT (FE) Exam prior to graduation. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 24. I was computer literate at the time I graduated. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 25. The highest degree that I have earned (from any university) is:
<u> </u> BS <u> </u> MS (Engr.) <u> </u> MBA <u> </u> PhD <u> </u> Other (specify)
(1) (2) (3) (4) (5) | | | | | |
| 26. Did you take the EIT Exam while at Tech? <u> </u> YES <u> </u> NO | | | | | |
| 27. Have you taken the EIT Exam since leaving Tech? <u> </u> YES <u> </u> NO | | | | | |
| 28. Are you registered as a Professional Engineer (any state)? <u> </u> YES <u> </u> NO | | | | | |
| 29. Major in Engineering: <u> </u> CE <u> </u> ChE <u> </u> EE <u> </u> ESM <u> </u> IE <u> </u> ME <u> </u> Other (specify) | | | | | |
| 30. Number of years since receiving BS degree: <u> </u> | | | | | |
| 31. Number of companies worked for since receiving BS degree: <u> </u> | | | | | |
| 32. Number of promotions since receiving BS degree (within companies): <u> </u> | | | | | |
| 33. Current annual income (to the nearest thousand): <u> </u> | | | | | |

Additional comments about the Engineering program at Tech: _____

OPTIONAL INFORMATION (only statistical results will be published):

NAME: _____
 TELEPHONE: (Home) _____
 (Work) _____

PLEASE RETURN WITHIN TWO WEEKS OF RECEIPT OF SURVEY.

1989 ALUMNI SURVEY
College of Engineering

In the Fall of 1989, an alumni survey instrument was prepared and mailed to all 6,254 engineering alumni living in the United States. Similar surveys were done in 1980 and 1986. A copy of the current survey instrument is in Appendix A. The first twenty-four questions are of the opinion type, while the last nine are information about experience, advanced degrees earned, major at Tech, and professional registration activity. A total of 1,640 responded. The number of responses by discipline are shown in Table 1.

Table 1. Respondees by Discipline

<u>Discipline</u>	<u>Number Responding</u>
Chemical Engineering	134
Civil Engineering	367
Electrical Engineering	436
Engineering Science and Mechanics	69
Industrial Engineering	145
Mechanical Engineering	489
All	<u>1,640</u>

Responses by discipline were analyzed and sent to the respective departments for review. The computer outputs for each discipline are also included in Appendix B. The results discussed here are for the 1,640 respondees. Similar graphs could be drawn for the results for each discipline.

Alumni Opinions

The alumni opinion (the first 24 questions) data was analyzed in two groups, all graduates and recent (less than five years) graduates. The recent graduates represented 26.0 percent of all the respondees. Generally, the two groups were in close agreement. Histograms for the opinion-type questions are plotted in Figures 1 through 24. The dotted vertical line represents the average for that question.

All Alumni

The alumni were generally pleased with the education that they received at Tech. They felt that Tech's programs prepared them for engineering practice as well as for advanced study. They also felt that there was high quality instruction, good support from University service units, and adequate curricula, facilities and equipment. They did not favor a more spread-out curricula or the requirement of cooperative education.

The responses on the EIT (Fundamentals in Engineering Examination) were mixed. They were strongly in support of a requirement to have seniors take the exam but just as strongly opposed to requiring seniors to pass the exam prior to graduation.

Recent Alumni

Most of the responses of the recent graduates were very similar to the responses of the 1,640 respondees. However, there were some noticeable differences. The recent graduates were slightly more negative about our facilities, instructional equipment, and the operations of the University's Placement/Coop and Housing Offices. They were more pleased with the University's Computer Center and also felt much more positive about being computer literate at graduation.

Three of the shortcomings pointed out by the recent alumni have been recently addressed or are being vigorously addressed now. These are computing, instructional equipment, and facilities. In June of 1989, the University opened a new eight million dollar state-of-the-art library adjacent to the engineering complex. In addition to all forms of bibliographical material, it houses additional microcomputers for student use. In August of 1989, the College dedicated three instructional/research engineering computing laboratories in Clement Hall. Each laboratory houses fifteen Sun Microsystems Inc., SPARC architecture, engineering workstations. The value of the new Sun equipment is over \$1.0 million.

Dealing with the facilities (space) question is always difficult, but there have been recent facilities developments. New space near the engineering complex is being dedicated to the College when the old library buildings are remodelled. In addition, planning is underway for a new multipurpose academic building to house the School of Nursing, the Engineering Centers of Excellence, and the Computer Center. In addition to providing needed space for the Centers, this new building will free up valuable space in Clement, Prescott and Brown Halls for the College.

Departmental/College level instructional equipment holdings have increased tremendously in the past few years. This large change is due primarily to two key factors. One very important factor is the recent creation (within five years) of the three state-funded Centers of Excellence managed by the College. The Centers have purchased research equipment and thereby have taken much of the fiscal pressure from the departments in that respect. Most of the departmental equipment funds have been targeted for the purchase of instructional equipment. In addition, manufacturers are more likely to donate new equipment, especially computers

which can be used for instruction, to the Centers. An excellent example of this is the Sun workstations. Another very important recent event is the passage of a ten-year legislative bill authorizing an annual state-wide \$10 million appropriation for instructional equipment. We are in the second year of this program.

Graduate Degrees Earned

Seventy-three percent of the respondees hold the bachelor's degree as the highest earned degree. Seventeen percent completed a master's in engineering; four percent, an MBA; two percent, a PhD in engineering; and two percent, a graduate degree in another area. Table 2 shows graduate degrees by discipline.

Table 2. Graduate Degrees Earned by Discipline

<u>Discipline</u>	Percent of Respondees with Advanced Degrees of			
	<u>MS (Engrg)</u>	<u>MBA</u>	<u>PhD.</u>	<u>Other</u>
Chemical Engineering	23%	6%	3%	3%
Civil Engineering	17	2	2	1
Electrical Engineering	19	3	1	2
Engineering Science and Mechanics	31	4	14	3
Industrial Engineering	13	7	0	2
Mechanical Engineering	12	4	2	1
Recent Grads (0-5 years)	11	0	0	0
All	17	4	2	2

Salary Survey

Ninety percent of the respondees reported annual salaries. The salaries ranged from \$1,000 (a graduate student) to \$310,000 with an average of \$51,260. The salaries are distributed as shown in Table 3.

Table 3. Salary Distribution

<u>Salary</u>	<u>Percent of Respondees</u>
\$16 - 20 K	0%
21 - 25 K	2
26 - 30 K	7
31 - 35 K	12
36 - 40 K	15
41 - 45 K	10
46 - 50 K	12
51 - 60 K	17
61 - 70 K	7
over 70 K	12

Average and highest salaries by discipline are shown in Table 4.

Table 4. Alumni Salaries by Discipline

<u>Discipline</u>	<u>High</u>	<u>Average</u>
Chemical Engineering	\$200 K	\$50.8 K
Civil Engineering	250 K	50.2 K
Electrical Engineering	250 K	51.6 K
Engineering Science and Mechanics	250 K	59.2 K
Industrial Engineering	310 K	46.3 K
Mechanical Engineering	250 K	51.7 K
All Alumni	310 K	51.3 K

Sixty-seven alumni reported salaries over \$100 K.

The salary data was also analyzed as a function of years since receiving the bachelor's degree. This presentation scheme was used since regional and national data are available for comparison. Figure 25 gives a comparison of the salaries of Tech alumni with data from the latest Engineering Manpower

Commission (EMC) salary survey published in Professional Income of Engineers - 1989. The median, upper quartile, and upper decile curves are from the sample of 6,879 engineers (all degree levels) living in the East South Central states (Alabama, Kentucky, Mississippi, and Tennessee). Each TTU alumni data point represents an average of all respondees from that graduating class. Every TTU data point represents at least ten TTU alumni. Note that most of the Tech data points are at the upper quartile. There were no Tech averages below the median line.

A linear least-squares fit using all the Tech salary data yields a predicted salary (PS), in thousands of dollars per year, of

$$PS = 1.40 \times (\text{Years since B.S. Degree}) + \$32.35 \text{ K}$$

Work Experience

The work experience of the 1,640 respondees is shown in Table 5.

Table 5. Work Experience Distribution

<u>Years of Experience</u>	<u>Percent of Respondees</u>
0 - 5 years	26.9%
6 - 10 years	22.8
11 - 15 years	12.4
16 - 20 years	11.9
21 - 30 years	18.1
over 30 years	7.8

The average experience level is 13.8 years. The average number of companies worked for was 2.2 with an average of 3.9 promotions within companies.

Professional Engineering Activity

Sixty-four percent of the respondees took the EIT (Fundamentals of Engineering) Examination while attending Tech, and another fifteen percent took it after leaving Tech. Twenty-seven percent are now registered professional engineers (PE's). For recent graduates, the percentage of EIT takers at Tech jumped to eighty-two percent. The results by discipline are shown in Table 6.

Table 6. Professional Engineering Activity by Discipline

<u>Discipline</u>	<u>% EIT Exam (at Tech)</u>	<u>% EIT Exam (later)</u>	<u>% PE's</u>
Chemical Engineering	50.0%	15.7%	10.4%
Civil Engineering	74.1	31.3	54.2
Electrical Engineering	57.6	13.5	18.8
Engineering Science and Mechanics	63.5	12.7	31.7
Industrial Engineering	55.9	4.1	8.3
Mechanical Engineering	67.9	14.7	24.1
Recent Grads (0-5 years)	81.8	9.8	4.6
All Alumni	63.9	17.2	27.3

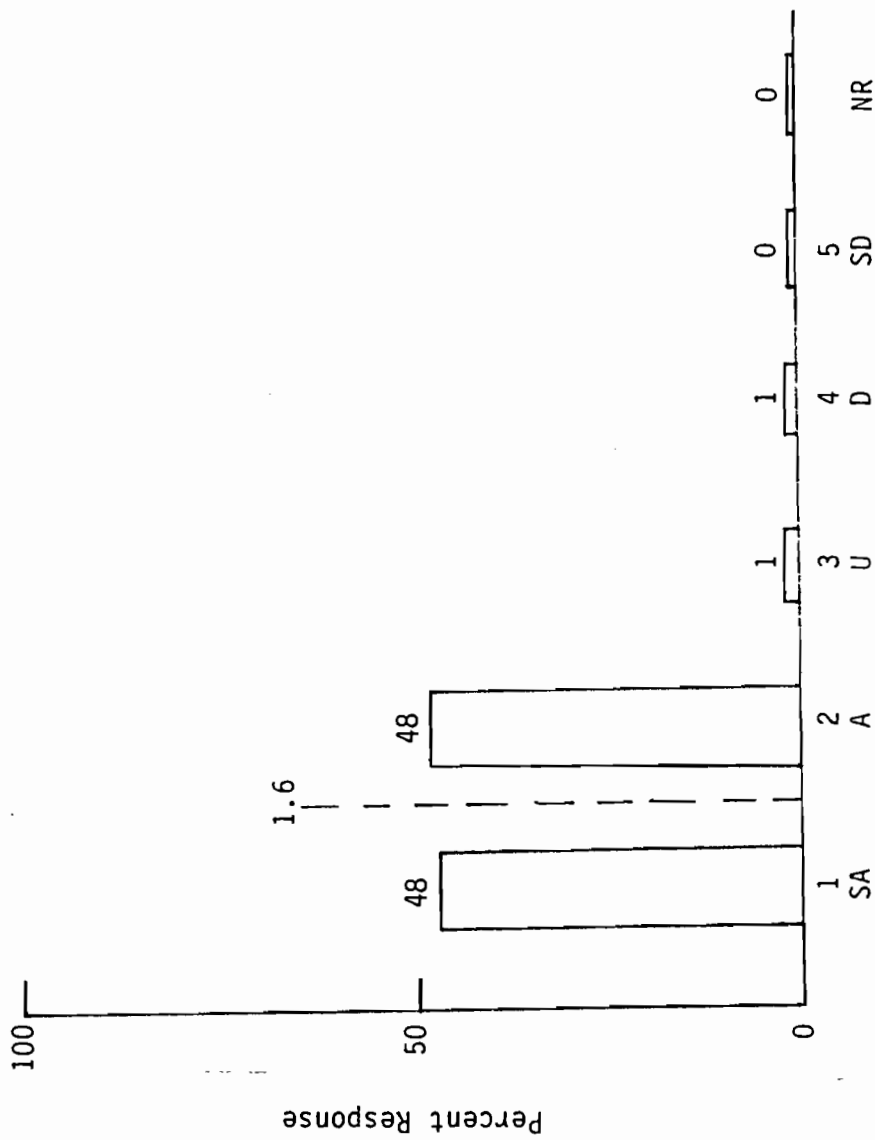


Figure 1. I consider my engineering education at Tech to be adequate for the position(s) in which I have served.

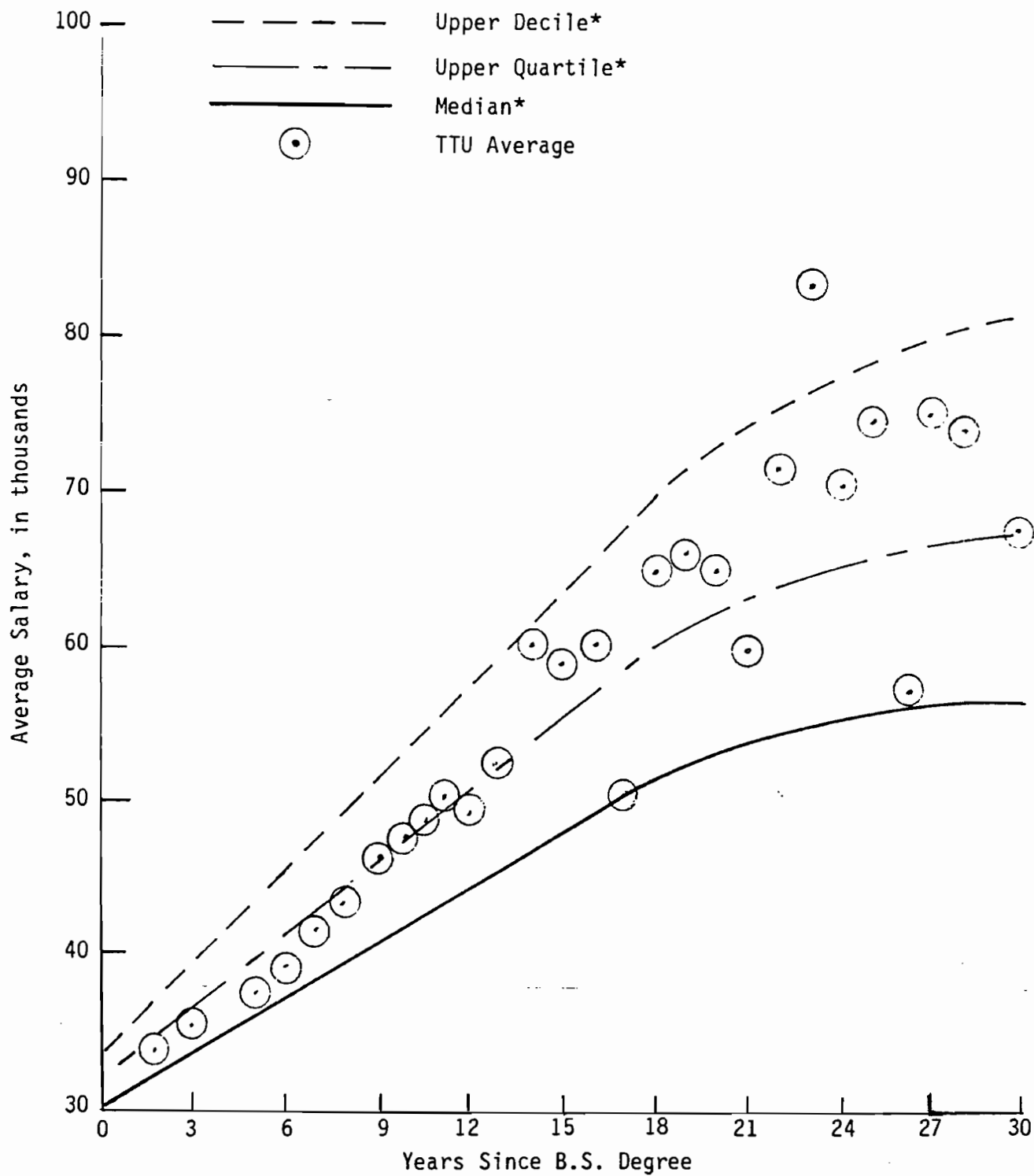


Figure 25. Alumni Salary History

*1989 data for the East South Central states from Professional Income of Engineers 1989.

1989 ABET ALUMNI SURVEY-ALL ALUMNI

THERE WERE 1640 RESPONSES

Q	SA	A	U	D	SD	NR	AVE
1	795 48	793 48	22 1	24 1	0 0	6 0	1.6 By Percentage
2	573 35	957 58	82 5	20 1	0 0	8 0	1.7 By Percentage
3	486 29	950 58	168 10	25 1	0 0	11 0	1.8 By Percentage
4	888 54	704 43	28 1	15 0	2 0	3 0	1.5 By Percentage
5	248 15	949 58	263 16	146 8	21 1	13 0	2.2 By Percentage
6	545 33	857 53	95 5	100 6	8 0	35 2	1.9 By Percentage
7	64 3	193 11	241 14	915 56	218 13	9 0	3.6 By Percentage
8	418 25	728 44	194 11	257 15	27 1	16 0	2.2 By Percentage
9	153 9	337 20	407 25	553 34	175 10	15 0	3.2 By Percentage
10	151 9	836 51	294 17	306 18	49 2	4 0	2.6 By Percentage
11	184 11	1126 68	156 9	155 9	14 0	5 0	2.2 By Percentage
12	129 7	959 58	231 14	286 17	28 1	7 0	2.5 By Percentage
13	501 30	1026 62	71 4	27 1	12 0	3 0	1.8 By Percentage
14	333 20	921 56	276 16	76 4	21 1	13 0	2.1 By Percentage
15	273 16	1164 71	136 8	39 2	10 0	18 1	2.0 By Percentage
16	268 16	1152 71	133 8	47 2	19 1	21 1	2.0 By Percentage
17	207 12	1085 67	213 13	70 4	25 1	40 2	2.1 By Percentage
18	317 20	657 43	357 23	120 7	61 4	128 8	2.3 By Percentage
19	181 12	800 54	251 17	188 12	44 3	176 12	2.4 By Percentage
20	183 12	846 55	351 23	97 6	45 2	118 7	2.3 By Percentage

21	303	1118	129	50	16	24	2.0
	18	69	7	3	0	1	By Percentage
22	700	554	145	189	45	7	2.0
	42	33	8	11	2	0	By Percentage
23	183	273	355	541	276	12	3.3
	11	16	21	33	16	0	By Percentage
24	273	658	159	355	140	55	2.6
	17	41	10	22	8	3	By Percentage
25	1205	281	71	42	37	4	1.4
	73	17	4	2	2	0	By Percentage

Q	LOW	HIGH	NR	AVE
30	1	53	6	13.85
31	1	37	23	2.21
32	0	25	285	3.88
33	1	310	162	51.26

EXPERIENCE RANGES BY PERCENTAGE

0-5YRS	6-10YRS	11-15YRS	16- 20YRS	21-30YRS	OVER 30 YRS
26.87	22.83	12.42	11.93	18.12	7.83

INCOME RANGES BY PERCENTAGE

16-20K	21-25K	26-30K	31-35K	36-40K	41-45K	46-50K	51-60K	61-70K	OVER 70K
0	2	7	12	15	10	12	17	7	12

67	MAKE OVER \$100K PER YEAR
9.9	PERCENT DID NOT REPORT INCOME
63.9	PERCENT TOOK THE EIT EXAM WHILE AT TECH
17.2	PERCENT TOOK THE EIT EXAM AFTER LEAVING TECH
27.3	PERCENT ARE PROFESSIONAL ENGINEERS

SALARY VERSUS EXPERIENCE

YEARS	AVG	NUMBER
1	28.43	53
2	31.01	84
3	34.28	76
4	32.75	71
5	37.60	107
6	39.30	91
7	41.73	82
8	44.64	58
9	46.35	54
10	47.59	61
11	50.21	39
12	48.71	35
13	51.91	33
14	59.38	42
15	59.64	36
16	60.64	28
17	50.38	26
18	64.29	41
19	64.60	42
20	64.16	43
21	59.78	27
22	71.31	29
23	82.89	36

24	70.06	36
25	74.10	41
26	57.42	19
27	74.04	25
28	71.93	29
29	64.00	7
30	66.79	24
31	72.62	13
32	84.33	18
33	73.47	15
34	68.33	6
35	59.00	4
36	117.67	3
37	64.67	3
38	55.75	4
39	67.70	10
40	63.50	10
41	88.00	1
42	37.33	3
43	0.00	0
44	89.00	1
45	46.33	3

THE LINEAR FIT ON SALARY IS:

$$\text{SAL} = 1.40 * \text{YEAR} + 32.35$$



INDUSTRIAL PROGRAMS

Old Dominion University
860 West 44th Street
Norfolk, VA 23529
Telephone (804) 683-5507 • FAX (804) 683-5509

May 1, 1992

Dr. John T. Mason III
Tennessee Technological University
College of Engineering--Administration
Cookeville, TN 38505

Dear Dr. Mason III:

Enclosed is the roster of attendees to the ASEE SE Section Conference hosted by Old Dominion University, April 12-14, 1992 at the Omni International Hotel in Norfolk, Virginia. I hope you found the conference rewarding and informative.

I have also enclosed an evaluation form for the conference. I would appreciate your taking the time to complete and return it in the enclosed postage paid envelope. Again, on behalf of the organizing committee thank you for participating in this year's ASEE Southeastern Section Conference.

Sincerely,

Nancy C. Short
Administration Manager
1992 ASEE SE Section
Conference Coordinator

Enclosures

cc: ASEE SE file



1992 ASEE SE Section
Old Dominion University
Norfolk, Virginia
April 12-14, 1992

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April 12-14, 1992

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April 12-14, 1992

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Southeastern Section
Of American Society For
Engineering Education

“Engineering-
Facing The Global Challenge”



April 12-14, 1992
Norfolk, Virginia

Co-Sponsored By:

Industrial Programs
College Of Engineering
And Technology
Old Dominion University



ASEE SOUTHEASTERN REGION 1992 CONFERENCE

CONFERENCE ORGANIZER: Gary R. Crossman, Old Dominion University

TECHNICAL PROGRAM CHAIR: Rhonda Hockelberg, Alabama A & M University

GENERAL CONFERENCE ARRANGEMENTS

Registration for the conference will be held on the Promenade level of the Omni Hotel. The rooms for the rest of the meetings are located adjacent to the Promenade.

historic district and lunch at one of the Williamsburg Taverns (included in registration fee).

On Tuesday, a morning tour of the Norfolk Naval Base (the world's largest Naval Base) is planned.

UNIVERSITY TOURS

A one hour tour of the ODU engineering facilities is planned for Sunday afternoon. Buses will depart from the hotel lobby at 3:30 p.m. and again at 4:30 p.m.

Registration for the spouse program is \$40 which covers transportation costs and the Williamsburg Pass.

There are some additional "on your own" activities available. Walking or Trolley tours of the downtown Norfolk historic area, harbor cruise and lunch on the New Spirit, the Chrysler Museum and MacArthur Memorial are all within walking distance of the hotel.

SPOUSE PROGRAM

Monday's tour will be an all day excursion to historic Williamsburg. Plan to depart at approximately 8:00 a.m. for Williamsburg. We will tour the

SESSION SCHEDULE

SUNDAY APRIL 12, 1992

Registration on the promenade level 1:00 p.m. to 7:00 p.m.

1:30 - 4:00 p.m. LEARNING STYLES/TEACHING TECHNIQUES WORKSHOP
Susan Simons, Memphis State University - Montpelier

Learning styles and teaching styles will be the primary emphasis of the workshop. The instrument utilized will be the Kolb Learning Style Inventory which will examine the individual learning styles of the participants. By examining and understanding the differences of the individual learning styles within the group, the participants will have a greater understanding of the learners in their classrooms. Faculty could then resort to various methods of teaching to enhance the education of all students. These methods will also be examined and discussed.

- 3:30 - 6:00 p.m. **TOURS OF OLD DOMINION UNIVERSITY'S ENGINEERING FACILITIES** - Departing from the hotel lobby at 3:30 and 4:30 p.m.
- 4:00 - 6:00 p.m. **EXECUTIVE BOARD MEETING** - Eppington
- 6:30 - 7:30 p.m. **WELCOME RECEPTION** - Greenway

Dinner is on your own. Restaurant information will be available at the registration desk.

MONDAY APRIL 13, 1992

Registration on the promenade level from 7:00 a.m. - 12:00 noon

- 7:30 - 8:45 a.m. **BREAKFAST** - Stratford
- 9:00 - 10:15 a.m. **GENERAL SESSION** - York

WELCOME AND OPENING REMARKS

Dr. James V. Koch, President
Old Dominion University

Dr. Ernest J. Cross, Dean, College of Engineering and Technology
Old Dominion University

Dr. Jack Evett, Section President
University of North Carolina at Charlotte

KEYNOTE ADDRESS - The Challenge to Engineering Educators
Dr. H. Lee Beach, Jr., Deputy Director
NASA Langley Research Center

- 10:15 - 10:45 a.m. **MORNING BREAK** - Promenade
- 10:45 - 12:00 noon **INSTRUCTIONAL UNIT I** - York
Moderator: J. P. Mohsen, University of Louisville

"Why Professors Move to Industry"
by James Marr, Sparta Corporation

"Design Games, Communication, and Engineering Education"
by Christopher Weeks and Fred Steier, Old Dominion University

"Ideology As It Effects Engineering"
by Martin Levine, Virginia Western Community College

- 10:45 - 12:00 noon **RESEARCH UNIT** - Eppington
Moderator: Stuart Bell, University of Alabama

"Multiple Regression Analysis in Baseball Technology"
by Curtis Young, Consulting Engineer

"The Legacy of the Swiss Mechanical Fountain - Computerized"
by William A. Beard, Western Kentucky University

"Recruiting Students from Engineering and the Sciences into
Engineering Graduate Programs"
by Robert G. Batson, Thomas W. Merritt and Carl F. Williams
University of Alabama

"Acquisition and Interpretation of Data From a Spark Ignited
Reciprocating Engine"
by G.A. Loper, Jr. and S.R. Bell, University of Alabama

10:45 - 12:00 noon ADMINISTRATIVE UNIT - Greenway
Moderator: William Rey, University of Alabama

Round Table Discussion including such topics as student and faculty
recruitment, graduate assessments, transfer criteria and other topics
suggested from the floor.

12:00 - 1:15 p.m. UNIT LUNCHEONS - Stratford
INSTRUCTIONAL UNIT presentation of the Tom C. Evans Award
Winning Paper and Business Meeting

RESEARCH UNIT
ADMINISTRATIVE UNIT

1:30 - 2:45 p.m. INSTRUCTIONAL UNIT II - Greenway
Moderator: Rhonda Hockelberg, Alabama A & M University

"Freshman Engineering Courses"
by Decatur Rogers and Farouk Mishu, Tennessee State University

"Hands-On Experience for Mechanical Engineering Technology"
by Alan R. Terrill, Alabama A & M University

"A Motivational Model for the Engineering Classroom Based on
Skinner Positive Reinforcement Theory"
by Kenneth P. Brannon and Dennis F. Fallon, The Citadel

"An Engineer Takes a Second Look at The Social Sciences"
by Martin Levine, Virginia Western Community College

1:30 - 2:45 p.m. ENGINEERING TECHNOLOGY I - York
Moderator: Susan Simons, Memphis State University

"Acquiring Computer Literacy in An Engineering Technology
Program"
by John Jeffords, John Hackworth and F.M. Williams
Old Dominion University

"ER Fluid Technology To Impact Power Transmission"
by John Marshall, East Carolina University

"Developing an Environmental Awareness Among CET Students"
by Patrick Pherson, Southern College of Technology

"Televised Engineering Technology Instruction: The ODU Two Plus Two Program"
by William Stanley and Alok Verma, Old Dominion University

1:30 - 2:45 p.m. MECHANICAL ENGINEERING DIVISION - Eppington
Moderator: Clark Midkiff, University of Alabama

"The Senior Design Experience With Automotive Engine Projects"
by Sidney Roberts and Drew Landman, Old Dominion University

"Integrated Statics and Strength of Materials"
by Chinyere Onwubiko, Tennessee State University

"A Comparison of a United States and Japanese Undergraduate Mechanical Engineering Curriculum"
by Robert Taylor, Tomoyuki Ishii and BK Hodge
Mississippi State University

"A University Familiarization Program for Minorities in Engineering"
by George Adebiyi and BK Hodge, Mississippi State University

2:45 - 3:15 p.m. AFTERNOON BREAK - Promenade Level

3:15 - 4:30 p.m. CIVIL ENGINEERING DIVISION - York
Moderator: Fazil T. Najafi, University of Florida

"Analysis of Earthquake Impact on Structures Treated as Beam on Elastic Foundations"
by Getachew Gabre, Alabama A & M University

"Public Domain Software for Use in Civil Engineering Courses"
by Curtis J. Young, Consulting Engineer

"Engineering Liability - An Issue of National and International Concern"
by Fazil Najafi, University of Florida

"Senior Research Projects: An Extension of a Student's Education or a Way to Give Them a Hard Time"
by Russell H. Stout, Dennis J. Fallon and Kenneth P. Brannan
The Citadel

3:15 - 4:30 p.m. ELECTRICAL ENGINEERING DIVISION I - Eppington
Moderator: Shelton Houston, University of Southern Mississippi

"Design Experiences in the Electrical Engineering Curriculum"
by S.S. Devagan, S. Zein-Sabatto and M. Bodruzzaman
Tennessee State University

"Professional Forums on Public Networks Support Technical Publication and Teaching Activities"

by Gary H. Johnsey, University of Southern Mississippi

"Trends Observed in the Teaching of Engineering Design"

by Lawrence J. Dunlop, The Citadel

"The Changing Electrical Engineering Curriculum, Good or Bad"

by Marvin C. Schiffman, University of Southern Mississippi

4:30 - 6:00 p.m.

SOFTWARE SWAP - Greenway

Moderators: Curtis Young, Douglas E. Tino, Inc., Sank Williams and Gene Smith, Old Dominion University

An informal opportunity to demonstrate and share personally developed software and demonstrate applications of commercial software. Computers will be available. All technical users are welcome.

6:15 - 7:00 p.m.

PRE-BANQUET RECEPTION - Promenade Level

7:00 p.m.

AWARDS BANQUET - Stratford

TUESDAY APRIL 14, 1992

7:30 - 8:45 a.m.

DIVISION BREAKFAST AND BUSINESS MEETINGS - Stratford

9:00 - 10:15 a.m.

ELECTRICAL ENGINEERING II - York

Moderator: Gary Johnsey, University of Southern Mississippi

"Austerity Measures Lead To Innovative Technical Education"
by Shelton Houston, University of Southern Mississippi

"Digital Filter Design and Implementation: A Lab Oriented Course"
by Tamal Bose, The Citadel

"Using Microprocessors to Introduce Redundancy and Fault Tolerance"
by Kamal S. Ali, University of Southern Mississippi

"A Low Budget Solution to a Microprocessor Laboratory"
by Rhonda Hockelberg, Alabama A & M University

9:00 - 10:15 a.m.

INDUSTRIAL ENGINEERING - Eppington

Moderator: Celestine Ntuen, North Carolina A&T State University

"Programmable Controller - Laboratory for Undergraduate Instruction"
by Bala Ram, North Carolina A & T State University

"Towards a Better Undergraduate Industrial Engineering Curriculum"
by Bala Ram and Celestine Ntuen
North Carolina A & T State University

"Laboratory Development Projects: A Pedagogical Approach to Engineering Design"
by Michael P. Deisenroth
Virginia Polytechnical Institute and State University

"Systems Methodology and Design as a Clinical Tool for Capstone Design Project Management"
by Celestine Ntuen, North Carolina A & T State University

10:15 - 10:45 a.m. MORNING BREAK - Promenade Level

10:45 - 12:00 noon ENGINEERING GRAPHICS - York
Moderator: George Lux
Virginia Polytechnical Institute and State University

"The Basic Engineering Drawing Course Consistent with Changes in Technology"
by Jimmy Dean Hahs and William Hemphill
East Tennessee State University

"Impact of the Review Process on the Engineering Design Graphics Journal - Preliminary Findings"
by Robert Chin, East Carolina University

10:45 - 12:00 noon ENGINEERING TECHNOLOGY II - Eppington
Moderator: Susan Levine, Memphis State University

"Are Engineering Technology Students Prepared to Face The Global Challenge? Auditing A Technology Program through Outcomes Assessment"
by Deborah Hochstein, Memphis State University

"Novel Approaches to Laboratory/Equipment Acquisition"
by Sherry Bryan-Hagge, Memphis State University

"Measuring the Success of an ET Program"
by Lavern Hardy, Western Kentucky University

"Digital Applied Research in the Development of an Industrial PLD State Controller"
by Roger Blue, University of North Carolina - Charlotte

12:00 - 1:30 p.m. ANNUAL BUSINESS MEETING AND LUNCH - Stratford

1:30 p.m. CONFERENCE ADJOURNS