

Doctor of Engineering

Graduate Program Manual



Doctor of Engineering

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Program Description

Program Objective

The Doctor of Engineering (D.Eng.) Program prepares women and men to work at the highest levels of the engineering profession. This program emphasizes solving problems that arise in using technologies beneficial to mankind. However, those problems and their solutions frequently affect society in nontechnical ways. Therefore, technological advances implemented through business and industry require direction by persons possessing both high technical competence and professional understanding of the social, political and institutional factors involved. Graduates of the D.Eng. Program are uniquely qualified to fulfill that important role.

The program prepares individuals for professional engineering careers in business, industry and the public sector. It is not intended as a research degree nor as preparation for a faculty position at a research university. That is the province of the Doctor of Philosophy (Ph.D.) Degree. The D.Eng. Program emphasizes engineering practice, public service and the development of leadership potential, not basic research.

D.Eng. graduates are prepared to move quickly into positions of responsibility and authority. Therefore, students are required to take courses in business and communications, supplemented by elective graduate courses. With this background, professional activities can and often do encompass both technical and nontechnical fields.

Positions of leadership call for interaction between technology and society; communication is required not only with other engineers but with other professionals, laymen and workers. The ability to think and express oneself clearly is essential. These needs are considered in the admission requirements and in the internship.

Admission Requirements and Procedures

Individuals possessing a minimum of an ABET-accredited bachelor's degree in engineering or the equivalent may apply for program admission. Those persons applying with only a bachelor's degree must have a grade point average of at least 3.0/4.0. Individuals applying with a master's degree in engineering must have a grade point average of at least 3.25 for their overall graduate studies. Since the D.Eng. is a practice-oriented, professional degree, at least one year of engineering or one year of engineering-related (or equivalent) practice is an important factor considered for program admission. Applicants must have acceptable GRE scores and grade point averages to be admitted into the D.Eng. Program.

Students must first be admitted by both the College of Engineering and the Office of Graduate Studies. Admission to Texas A&M University through the Office of Graduate Studies does not imply admission to the D.Eng. Program, nor does admission to the program by the College of Engineering imply admission to the University by the Office of Graduate Studies.

A student seeking admission beyond the master's level is still required to pass the separate oral and written examinations associated with the D.Eng. Qualifying Examination described in the "Examinations" section of this manual.

A person interested in admission should contact the D.Eng. departmental program coordinator in the department of interest for advising. If considered a good candidate by the department coordinator, the applicant is required to accomplish the following:

- a. Complete the program application form



The Academic Building

- b. Complete a 300-word essay on why the D.Eng. Program is of interest
- c. Provide official transcripts of all academic work, including TAMU
- d. Obtain admission to a doctoral program in a department within the College of Engineering at Texas A&M University through the Office of Graduate Studies
- e. Provide a current resume'
- f. Obtain a faculty letter of support from a current TAMU Engineering faculty member that conveys a commitment to serve in an advisory capacity

and demands of the D.Eng. Program, ethical outlook, interests outside academia, an understanding of society and its current problems, and concepts of professionalism.

The Chair of the Admission Subcommittee sends records of the interview and the subcommittee's recommendation with the applicant's file to the Dean of Engineering. The dean makes the final decision and informs the applicant by letter.

Residence

Students who enter the D.Eng. Program with baccalaureate degrees must spend two academic years in resident study. Students who hold master's degrees when they enter the program must spend one academic year in resident study. In this context, an academic year is defined as two regular semesters, two 10-week Summer semesters, or a regular semester and a 10-week Summer semester. To satisfy the residence requirement, the student must complete a minimum of 9 credit hours per semester or 10-week Summer semester for the required period.



Sterling C. Evans Library

Official documents of the above steps are assembled by the department coordinator and evaluated; if the evaluation supports admission, the coordinator recommends to the department head that the applicant be interviewed. If the department head concurs, the department head adds a letter of departmental acceptance to the applicant's file, which is then forwarded to the Dean of Engineering for review. With the dean's approval, the file is forwarded to the Chair of the Admission Subcommittee.

The Admission Subcommittee examines the applicant's record for compliance with policy; if approved, an interview date is set. The applicant, accompanied by a faculty member of the chosen specialty department, is interviewed for approximately 30 minutes by the Admission Subcommittee. The interview helps in evaluating important aspects of the applicant's professional maturity and development that otherwise may not be evident from the record. Important factors for evaluation are the applicant's ability to respond verbally in an organized and sophisticated manner to a semi-stressful situation, an understanding of goals



The Richardson Petroleum Engineering Building

Student's Advisory Committee

The functions performed by the Advisory Committee in the D.Eng. Program are similar to those for a Ph.D. student.

After receiving admission to both the University and the program, the student consults with the D.Eng. coordinator and head of the chosen administrative department on appointing the chair of the Advisory Committee. The chair consults with the student to select the remaining members of the Advisory Committee. The selected members are notified by the chair, given the student's name and field of study and requested to consider serving on the Advisory Committee. The student then personally interviews each prospective committee member to determine whether that person is willing to serve. In its final form, the student's Advisory Committee consists of not fewer than four members of the graduate faculty whose expertise is representative of the student's several fields of study. One member of the committee must be from a department other than the student's administrative department.

The student's internship supervisor, a practicing engineer, becomes a member of the Advisory Committee upon approval of the Dean of Engineering and the Office of Graduate Studies. (Refer to the "Internship" section for complete information on approval of the supervisor.)

The Advisory Committee is responsible for guiding and directing the entire academic and internship programs of the student and for initiating all actions concerning the student. The chair is responsible for calling required meetings of the Advisory Committee and desired meetings at any other time.

The D.Eng. Qualifying Examination is the responsibility of the Advisory Committee or the administrative department of the student, depending on the departmental policy. The Advisory Committee has the responsibility for evaluating the adequacy of the internship program as described in the Internship Proposal, qualifications of the student to embark on the internship, final internship objectives, Record of Study and final examination. In addition, Advisory Committee members, collectively and individually, are responsible for advising the student on academic matters and, in the case of academic deficiencies, for initiating appropriate

recommendations to the Office of Graduate Studies and College of Engineering.



Students with their Advisory Committee Chair

Preparing Degree Plans

Degree plans are prepared in general accordance with the rules of the Office of Graduate Studies.

The curriculum required for the D.Eng. degree is shown in the table on page 6. Degree plans should reflect requirements of "Curriculum Requirements for Doctor of Engineering" with respect to the student's background. Students who enter the program with an ABET-accredited bachelor's degree in engineering (or equivalent) prepare degree plans that meet the 97 semester credit hour minimum requirements of the program. Students who enter the program with other than a bachelor's degree in engineering must prepare degree plans with sufficient remedial studies to permit completion of requirements on the curriculum chart. Students who enter the program with a master's degree in engineering must prepare degree plans that meet "Curriculum Requirements for Doctor of Engineering" (page 6) with credit for appropriate advanced study already completed and meet the 64 semester credit hour minimum. Note: Possession of a master's degree of engineering does not automatically ensure that a student has the equivalent of an ABET-accredited bachelor's degree in engineering. Any deficiencies must be corrected.

Advisory Committee-Approved Courses

1. Department-oriented graduate level courses (32 hours) may include advanced courses in the student's specialty, courses in related technical or engineering fields, science, engineering economics, computer science, mathematics and similar areas that, taken as a group, demonstrate the student's mastery of an acknowledged part of the engineering profession.
2. Elective graduate level courses (12 hours) allow the student to pursue further study in business, finance, management, psychology, political science, economics, labor relations, urban planning, humanities, technical areas outside the major studies or other fields as desired.

A course schedule layout should be prepared to show how the degree plan meets the requirements of the "Curriculum Requirements for Doctor of Engineering" (page 6). The student should submit the layout with the degree plan through the Advisory Committee chair.

Scholastic Requirements

To remain in good standing, students admitted to the D.Eng. Program must maintain a minimum grade point ratio of 3.00 in their graduate studies. Regulations on scholastic requirements in the *Graduate Catalog* apply to the D.Eng. Program.



Albritton Bell Tower

Examinations

There are three examinations that a D.Eng. student must successfully complete. These are summarized here:

1. D.Eng. Qualifying Examination: All students admitted to the D.Eng. program are required to pass a comprehensive examination. After completing the master's degree, individuals are required to take this D.Eng. Qualifying Examination no later than the second semester of D.Eng. program enrollment. The examination determines if the student is prepared academically to continue study toward the D.Eng. degree. The Qualifying Examination is the responsibility of the administrative department of the student or the Advisory Committee, as determined by departmental policy. A student who fails the Qualifying Examination may, with the approval of the Advisory Committee, take the test again. The second examination is administered after the suitable period of preparation, normally not less than six months, upon the recommendation of the Advisory Committee. The Office of Graduate Studies and the Dean of Engineering shall be notified promptly of the results of the examination.
2. D.Eng. Preliminary Examination: This examination takes the form of Advisory Committee review and approval of the D.Eng. Internship Proposal (see the "Internship" section) plus any academic examinations required by the Advisory Committee. The examination is intended to determine if the student is prepared to enter the internship phase of the program, and that the internship arrangements are in good order. Preliminary objectives of the internship must be included in the proposal. After approval by the Advisory Committee, the proposal is sent through the D.Eng. Program Coordinator in the Office of the Dean of Engineering, who forwards it to the Office of Graduate Studies. The approved proposal must include a signature page bearing all signatures of the committee members, internship supervisor, and the College of Engineering D.Eng. Program Coordinator. The same general format as the approval page of the Record of Study (described later) may be used. The approval of the Internship Proposal and passage of any required academic examinations are considered the equivalent of

the Ph.D. Preliminary Examination and should be taken when the student has remaining 9 or less semester hours of course work.

3. Final Examination: The Record of Study and internship are defended to the complete Advisory Committee in accordance with the University guidelines. The result of the final examination is reported to the Office of the Dean of Engineering and the Office of Graduate Studies by the Advisory Committee chair.

All examinations, their announcements and results must be administered within the guidelines, rules and regulations of Texas A&M University. An appeals process has been defined in the *Texas A&M University Student Rules* for graduate students. The student's major department and Advisory Committee may require departmental, cumulative or other types of examinations at any time deemed desirable. These examinations are entirely at the discretion of the department and the student's Advisory Committee. For instance, these examinations may be used for determining the technical depth and breadth required for the internship project.

The candidate for the D.Eng. degree must pass a Final Examination on the internship and Record of Study following the University calendar. The final Record of Study (internship report) is submitted through the Thesis Clerk. The notification of the Final Examination must be made at least two weeks prior to the examination date to the Office of Graduate Studies and the Dean of Engineering. Copies of the Record of Study also must be provided to the Advisory Committee and the Office of the Dean of Engineering at least two weeks prior to the Final Examination.

The student's Advisory Committee, including the internship supervisor if possible, conducts the examination, which includes the internship experience and closely allied topics as well as the broad field of the candidate's education. Persons other than members of the graduate faculty may, with the mutual consent of the candidate and the major professor, attend final examinations for advanced degrees. The department head of the administrative department and the Dean of Engineering may recommend that certain off-campus individuals be invited to attend the Final Examination. Upon completion of the questioning of the candidate, all visitors must excuse themselves from the proceedings. The Advisory Committee will

submit its recommendations to the Office of Graduate Studies on the "Report of the Final Oral Examination for a Doctoral Candidate" provided by the Office of Graduate Studies, with a copy to the Dean of Engineering regarding the acceptability of the candidate for the doctoral degree.



The Memorial Student Center and Rudder Tower



Zachry Engineering Center

Curriculum Requirements for Doctor of Engineering

To enter the D.Eng. program, the student must have earned an ABET-accredited bachelor's degree (or equivalent) in engineering. None of the course work taken to satisfy ABET requirements may be used to meet master's degree or D.Eng. degree requirements.

REQUIRED COURSES (Professional Development)	Credit Hours
ACCOUNTING <small>[select one from this group]</small> _____	
ACCT 640 Accounting Concepts and Procedures I	3
ACCT 611 Management of Taxation	3
COMMUNICATIONS <small>[select one from this group]</small> _____	
COMM 636 Research in Organizational Communication	3
COMM 637 Organizational Communication Seminar	3
COMM 665 Communication and Technology	3
FINANCE I <small>[select one from this group]</small> _____	
FINC 635 Financial Management for Non-Business	3
FINANCE II (after Finance I) <small>[select one from this group]</small> _____	
FINC 630 Financial Management	3
FINC 645 International Finance	3
INEN 667 Engineering Economy	3
POLICY AND STRATEGY <small>[select one from this group]</small> _____	
MGMT 655 Survey of Management	3
MGMT 680 Business and Corporate Strategy	3
MKTG 621 Survey of Marketing	3
POLS 645 Politics, Policy and Administration	3
MANAGEMENT or LABOR^(a) <small>[select one from these two groups]</small> _____	
INEN 663 Engineering Management Control Systems	3
MGMT 620 Strategic Human Resource Management	3
MGMT 630 Behavior in Organizations	3
MGMT 635 Employment Regulation	3
MGMT 650 Human Relations and Collective Bargaining in Industry	3
ETHICS <small>[select one from this group]</small> _____	
ENGR 482 Ethics and Engineering	3
PHIL 671 Ethics for the Professional	3
<hr style="width: 100px; margin-left: auto; margin-right: 0;"/>	
<i>(minimum from this section)</i> 21	

OTHER REQUIRED COURSES	Credit Hours
SEMINAR _____	
Professional Development Seminar(s) (or other Seminar(s) approved by the program)	4
INTERNSHIP _____	
ENGR 684 Professional Internship (Record of Study required)	16
<hr style="width: 100px; margin-left: auto; margin-right: 0;"/>	
<i>(minimum from this section)</i> 20	
ADVISORY COMMITTEE - APPROVED COURSES	
Department-oriented Graduate Level Courses	32
Engineering Design Courses	12
Elective Graduate Level Courses	12
<hr style="width: 100px; margin-left: auto; margin-right: 0;"/>	
<i>(minimum from this section)</i> 56	
TOTAL MINIMUM REQUIRED	97

NOTES

1. Typically, three years of full time study (including internship) will be required beyond the bachelor's degree to complete the D.Eng. Program.
2. The final master's degree examination is required at the completion of a Master's Degree Program, as approved by the Advisory Committee. This examination is separate from the D.Eng. Qualifying Examination.
3. A D.Eng. Qualifying Examination is required before completion of the second semester for a student entering the program with a master's degree.
4. A Final Examination is required at the completion of the D.Eng. Program.

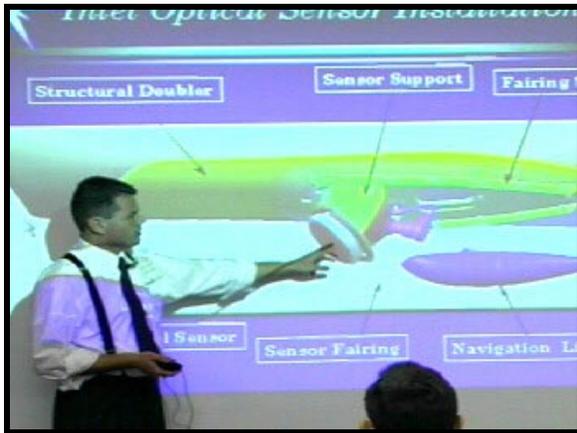
(a) Students without previous management experience or management courses must take at least one of the MANAGEMENT courses from this block.

Internship

As part of the requirements, each student spends a minimum of one calendar year working under the supervision of a practicing engineer in industry, business or government. **Responsibility for finding an appropriate internship position is entirely that of the student**, although the student's committee often assists in locating a position. The internship is entered after completing the courses on the approved degree plan. No university or internship credit is given for the practice of engineering prior to entry into the D.Eng. program and acceptance of the Internship Proposal, described below.

During the internship and through the semester of the Final Examination, the student remains continually enrolled in the University.

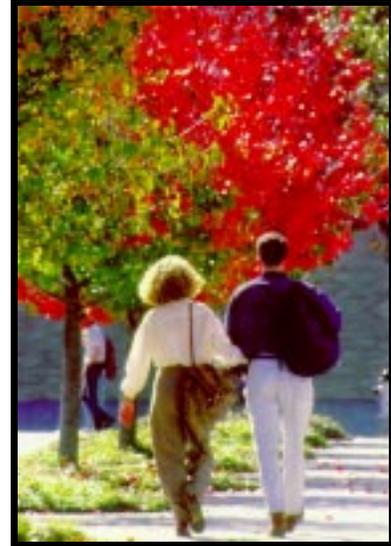
The nature of the proposed internship, its preliminary objectives and the plan to attain them are described in the Internship Proposal developed by the student and approved by the Advisory Committee and internship organization. The proposal must be approved by the Dean of Engineering and the Office of Graduate Studies before the student registers for internship credit and the internship begins. Final internship objectives are submitted and approved as described in "Internship Procedures" within six months of the commencement of the internship. The approved Internship Proposal constitutes the equivalent of a Preliminary Examination (with any additionally required academic examinations). The approved proposal must include an approval page bearing all signatures of the committee members, internship supervisor, and the College of Engineering D.Eng. Program Coordinator. The same general format as the approval page of the Record of Study (described later) may be used. The final internship



Industry Representative

objectives, once approved and sent to the Office of the Dean of Engineering and the Office of Graduate Studies, allow admission to candidacy to be requested for the D.Eng. student.

It is expected that the internship experience will be at a level in the organization that enables the student to deal with broadly based problems affecting more than one facet of the organization, rather than a single narrow or specific technical problem. Specific arrangements for the internship are made through the student's major department, including any necessary internship agreements developed between the student and the Advisory Committee, the internship supervisor and appropriate representatives of the industrial organization. Copies of all written agreements must be approved by the Dean of Engineering.



Campus Scene

Each department establishes the exact scheduling of the internship so that both the student and the organization achieve the optimum benefit. The following limitations apply: (1) the total internship of 12 months may be divided into not more than two periods, and no one period shall be less than three months; and (2) the D.Eng. course requirements shall be essentially completed prior to the start of an internship period.

Intern salaries are not set by the Office of Graduate Studies or student's major department. These are established by agreement between the intern and the employer.

Interns may register in absentia for a maximum total of 8 semester hours of ENGR 684 during the two summer terms or 10-week summer semester, and 4 hours during each regular semester of the internship. The minimum number of hours to complete the internship is 16; however, students who extend their internship beyond a calendar year will take more than the required minimum. During the internship, the student must be continually enrolled in

the University for a minimum of 4 hours each regular semester and each five-week summer term. The chair of the Advisory Committee is responsible for ensuring that the student is continually enrolled for the correct number of hours. Credit is not given for employment that continues beyond the internship period, but enrollment in at least 4 semester hours of ENGR 684 per regular fall and spring semester is required until graduation.

Internship Documentation

The Record of Study must be the original work of the candidate. The document is prepared and submitted in accordance with guidelines stated in the *Thesis Manual* available online at <http://thesis.tamu.edu>. At least two weeks before the student's Final Examination, the candidate submits one copy of the Record of Study to the Office of the Dean of Engineering. The student also delivers copies of the document to each Advisory Committee member at that time.



Civil Engineering Building

The Final Examination and presentation, which describe the experience and contribution of the student during the internship, are part of the final examination for the doctoral degree. The internship supervisor must be a member of the examining committee, and will have an active role in final evaluation of the student.



Reveille (Mascot)

Committee members' suggestions and corrections must be incorporated in the record, and two copies of the revised version as approved by the Advisory Committee are delivered to the University Thesis Office by the deadline specified before the expected date of graduation on the Office of Graduate Studies calendar. The corrected report must bear the approval signatures of the department head and members of the student's Advisory Committee. Binding fees are paid before two copies of the final report are delivered to the University Thesis Clerk for final approval and graduation clearance.

Procedures and Guidelines

Internship Procedures

Internship Placement

The Advisory Committee chair meets with the student to determine the student's career objectives and to select candidate organizations that best meet these objectives.

The student and committee chair ask the selected internship supervisor to review the initial proposal, including position, requirements and objectives of the internship and responsibilities of the individuals involved. **The Advisory Committee must agree with all aspects of the internship.**

When the student and organization have completed the internship agreement, the student submits the Internship Proposal, internship supervisor credentials (resume) and preliminary objectives to the Advisory Committee chair and members. Once the committee accepts the proposal and forwards it and the internship supervisor credentials to the Office of Graduate Studies, through the Dean's Office, the supervisor joins the committee as a nonvoting member upon approval by the Office of Graduate Studies.

Internship Activities

In addition to periodic reports, the student and internship supervisor provide any additional progress reports required by the Advisory Committee. Within the first six months the student must submit a Final Internship Objectives document for approval by the committee and intern supervisor in a process described later. Admission to candidacy is granted once the final objectives for the internship are approved by the Advisory Committee and submitted to the Office of Graduate Studies through the Office of the Dean of Engineering.

When appropriate and possible, the internship supervisor meets with the Advisory Committee on campus to review the student's progress. The internship supervisor is responsible for letter reports to the committee on the student's progress as described in the guidelines.

The chair or a representative should make at least one visit to the work site to ensure that the internship is proceeding as planned. A report of this visit is submitted to the chair of the Advisory committee with a copy to the student.

Post-internship Activities

The internship supervisor makes a final written report and evaluations of the intern's activities. The report is submitted to the Advisory Committee chair, who distributes it to the Advisory Committee. This report must be a part of the Record of Study.

Record of Study

The Record of Study documents the experience acquired during the D.Eng. Internship and demonstrates that objectives of the internship have been met. The Record of Study should not be a chronological diary, but should contain information about the following:

1. Final objectives of assignment(s) during the internship
2. Intern's position with the organization
 - a. Technical nature of the job
 - b. Administrative duties of the job
 - c. Managerial duties of the job
3. Names of the immediate supervisors, their titles during the time of the internship and name of the intern supervisor if different from the immediate supervisor
4. Details of specific assignments, including these:
 - a. Objective of the assignment
 - b. Task description
 - c. Administrative and managerial assignments
 - d. Description of nontechnical problems associated with the specific assignment, for example, such items as management, labor relations, public relations, environmental protection and economics
 - e. Method or approach
 - f. Sources of information required to perform task
 - g. Discussion of pertinent information that was not readily available (i.e., estimates, approximations or speculations; the significance and limitations of such estimate, the necessity for further work, etc.)

- h. Consequences (e.g., the most valuable thing learned from the experience, limitations in knowledge or resources that might restrict the usefulness or full implementation of results, areas in which the internship could be improved)
 - i. Contributions to any area outside the direct assignment (e.g., suggested ideas and improvements as well as measurable accomplishments)
5. Final Report submitted by the internship supervisor

The Record of Study must satisfy requirements of the Office of Graduate Studies and the University Thesis Office with regard to format, mechanics and submission of copies. (Refer to "Preparing the Record.")

Besides the University requirements, a copy of the bound report will be filed in the Office of the Dean of Engineering and elsewhere as instructed by the Advisory Committee.

Except as noted in the preceding sections, requirements for the D.Eng. degree are identical with those for the Doctor of Philosophy Degree.



The Association of Former Students Building



Industry Representative

Dean of Engineering at least two weeks before the Final Examination. At the time of the Final Examination, members of the Advisory Committee may sign the approval page.

After the oral defense, satisfaction of the requirements of the committee, and obtaining the committee signatures on the approval pages, the following procedure must be followed:

1. The student pays the required fee for processing the record of study.
2. The record of study is submitted electronically as a single .pdf file.
3. The original, signed approval page must be delivered by hand or mail (hand delivery is recommended.)

Final Disposition

The candidate must apply for graduation in accordance with the guidelines and calendar published by the University and the Office of Graduate Studies. The candidate must submit one draft copy of the Record of Study to the Office of the

Preparing the Proposal and Final Objectives

Internship Proposal

Approval for an internship is requested via an Internship Proposal that is submitted by the student to the chair of the Advisory Committee. The entire committee must approve the proposal after meeting with the student. The proposal must be prepared and approved prior to the start of the internship because credit for engineering practice completed prior to proposal approval is not allowed. Additionally, credit for engineering practice obtained prior to entry into D.Eng. graduate studies is not allowed.

The Internship Proposal may be prepared in any format and style, but it should include, as a minimum, the following sections.

Internship Site - a brief description of the corporation, business or agency where the internship will take place.

Projects - brief description of the technical projects, and management/organizational opportunities that are anticipated during the internship. The project phase should be composed of one or two (no more than three) projects and some management development or organizational familiarization within the corporation.

Technical Demonstration - a summary of the technical skills to be gained during the D.Eng. internship and graduate courses that the intern expects to utilize while on the internship.



The James J. Cain ('51) Building

Preliminary Objectives - to the extent possible, a statement of the technical and management objectives to be accomplished. These objectives will become more detailed in the Final Internship Objectives, which are submitted no later than six months after the internship starts.

Internship Supervisor - a resume for this individual should be included.

Committee Approval - include a separate sheet with the name of each committee member, internship supervisor, and the College of Engineering D.Eng. Coordinator for approval. After the proposal is approved, all committee members must sign this sheet. The same general format as the approval page of the Record of Study (described later) may be utilized.

Final Internship Objectives

This is a statement of the final objectives of the internship. These objectives are: (1) the basis for the technical and management development experience presented in the Record of Study, and (2) discussed and defended in the final examination. The objective statement should include a statement of the accomplishments and contributions to be reported in the Record. Major variations from the preliminary objectives in the Internship Proposal should be noted here.

This document may utilize any format, but should not be a simple repeat of the Internship Proposal objectives. An approval sheet, as described above, with all committee members and the College of Engineering D.Eng. Coordinator should be included with this document.

The Final Internship Objectives document must be submitted and approved no later than six months after the commencement of the Internship. Admission to candidacy for the student is requested by the student's chair, through the Dean, College of Engineering when the approved final objectives are submitted to the Office of Graduate Studies.

Preparing the Record of Study

Format and Style

The format and style of the Record of Study must be consistent throughout and must follow the format listed in the *Thesis Manual* available online at <http://thesis.tamu.edu>. The record should not be a diary of activities nor a compendium of previously submitted progress reports.

Content

Content of the Record of Study shall contain, as a minimum, the topics discussed in the D.Eng. program manual. As explained earlier, the Record of Study shall not be a diary of internship activities nor a compendium of progress reports previously submitted. Such material must be placed in an appendix and any reference to it made in the text narrative. A sample Record may be obtained from the College of Engineering D.Eng. Coordinator.

Sequence of Parts and Sample Pages

Title Page

The title page must follow the style, spacing and form of the Thesis Manual and appear as shown in the example on page 13. The student's major subject is engineering; the administrative department is indicated in parentheses below the major subject. The Record's title should reflect the technical content and need not include the name of the internship site. This is page i (unnumbered).

Approval Page

The approval page, reflecting the style, spacing and format of the example on page 14, must bear the original signature of each Advisory Committee member, including the internship supervisor, the head of the department administering the student's program and the College of Engineering D.Eng. Coordinator. The number of members on the student's Advisory Committee determines the number of signature spaces on the page. The position (chair, member, department head, etc.) of each member on the committee must be indicated under the signature space. The approval page is not numbered, and directly follows the title page.

Abstract

The required abstract (page iii) should not exceed 350 words in length. The abstract should list the internship company and date, author, previous degrees earned and institutions where earned, and chair of the Advisory Committee.

Acknowledgments

This optional section should follow the abstract.

Table of Contents

The table of contents is labeled as such, and follows the approval or acknowledgment page, if used. The first item listed should be the abstract, and the last item listed should be the vita page.

List of Figures

If figures are used, they should be listed here.

List of Tables

If tables are used, they should be listed here. This page follows the list of figures.

Body of the Report and Appendices

The body of the report and appendices shall conform to format and other requirements stated in the University Thesis Manual.

Vita

A brief biographical sketch of the author must be included in the report. This sketch, with the title VITA centered at the top of the page, may not exceed one page in length. The sketch should include the date and place of the author's birth, names of his or her parents, his or her educational background (including schools attended, degrees earned, year previous degrees were completed and major field or specialization) and the permanent mailing address. Where applicable, this page should list professional experience in industry, military service, business and academic life. The vita page is the last page numbered in the Record of Study. The name of the preparer of the Record of Study document should be stated at the bottom of the page.

SAMPLE TITLE PAGE

[TITLE]

A Record of Study

by

[STUDENT'S NAME]

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF ENGINEERING

[Month 20xx]

Major Subject: Engineering
([Department])

SAMPLE APPROVAL PAGE

[TITLE]

A Record of Study

by

[STUDENT'S NAME]

Approved as to style and content by:

[Name]
Chair of Advisory Committee

[Name]
Co-Chair of Advisory Committee

[Name]
Member

[Name]
Head, [Department]

[Name]
Member

[Name, Organization]
Internship Supervisor

[Name]
Member

[Name]
Member

Coordinator
College of Engineering

[Month 20xx]

Industry Participation Guidelines

Objectives

Objectives of the D.Eng. Internship are as follows:

- a. To enable the student to demonstrate an ability to apply knowledge and technical education by making an identifiable engineering contribution in an area of practical concern to the organization or industry in which the internship is served.
- b. To enable the student to function in a nonacademic environment in a position where the student becomes familiar with the organizational approach to problems in addition to traditional engineering design or analysis. These may include, but are not limited to, problems of management, environmental protection, labor relations, public relations and economics.

The total internship of at least 12 months may be broken into not more than two periods, and no one period should be less than three months. The internship experience should satisfy requirements for registration as a professional engineer.

Internship Supervisor

The supervisor of the intern should be a person with management-level status within the organization. The internship supervisor will have responsibility for the intern's assignments. This could be the intern's immediate supervisor or, in the event that the intern will have assignments in several areas during the work experience, could be someone at a higher level of management in the company who has supervision over the various areas. The internship supervisor should be a practicing engineer active in the profession. This person should plan on traveling to the TAMU campus to participate in the intern's final examination, if possible.

Confirmation Procedure

The person recommended for the internship supervisor's position will submit a resume to the chair of the Advisory Committee for approval by the committee. This resume is included with the Internship Proposal when it is approved and submitted through the Office of the Dean of Engineering to the Office of Graduate Studies. The



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Office of the Dean will consider the internship supervisor to be a full member of the committee upon approval by the Office of Graduate Studies.

Internship Selection

Students should select several potential employers to contact for interviews either on campus or at the employer's location. Student and employer negotiate the job description and salary. Prior to employment, objectives listed in the Internship Proposal must be approved by the internship supervisor and employer. The Record of Study documents the extent to which each objective was met.

Report Procedure

The intern periodically (monthly, quarterly, etc.) prepares a letter report to the Advisory Committee chair summarizing activities. One report submitted within the first six months is the Final Internship Objectives document approved by the internship supervisor and committee. Upon completing the internship, the student prepares the Record of Study of the internship activities.

The internship supervisor submits a letter report to the student's committee chair at six-month intervals and at the end of the internship. The final written report comments on the student's performance as a practicing engineer and includes an evaluation of the extent to which each objective was satisfied. This final report is included in the Record of Study.

Checklist for Student

If the student enters the program with an appropriate B.S. degree:

1. The applicant must be admitted to graduate studies at Texas A&M University through the Office of Graduate Studies and the Office of Admissions.
2. The student contacts the D.Eng. departmental program coordinator in the department of interest. This may occur after entering graduate school.
3. The student completes a program application form and 300-word essay on why the D.Eng. Program is of interest, then submits them to the departmental program coordinator along with all academic transcripts, including TAMU transcripts, a resume, and a letter of support from a current TAMU Engineering faculty member conveying a commitment to serve in an advisory role.
4. The departmental program coordinator reviews the above information; if the evaluation is favorable, the coordinator forwards a recommendation for admission to the department head.
5. If concurring, the department head adds an endorsement and forwards the applicant's file to the Dean of Engineering . With the dean's approval, the file is forwarded to the chair of the Admissions Subcommittee.
6. The Admissions Subcommittee schedules an interview for the applicant. A member of the applicant's speciality department may accompany the student to the interview.
7. The subcommittee chair sends records of the interview and recommendations of the Admissions Subcommittee to the Dean of Engineering.
8. The Dean of Engineering reviews the application and sends the letter of acceptance or rejection to the applicant.
9. If the applicant is accepted, the dean sends a memorandum (with a

copy to the Office of Graduate Studies) informing the department head that the student has been accepted.

10. Working with the committee chair, the student selects an Advisory Committee. No fewer than four members of the graduate faculty shall represent the student's several fields of study, and one member of the committee must be from a department other than the student's administrative department.
11. With the approval of each Advisory Committee member and the Dean of Engineering, the candidate files the degree plan for the master's degree in the Office of Graduate Studies. This step should occur as soon as possible after entering the program but no later than the second semester of registration.
12. During the last semester of course work for the master's degree, the student must work with the committee chair to select a date for two different examinations: the Master's Examination and the D.Eng. Qualifying Examination (an oral and written test). The Dean of Engineering and the Office of Graduate Studies are notified at least two weeks prior to the examination dates.
13. After passing the D.Eng. Qualifying Examination, the student files the D.Eng. degree plan, which has been approved by the student's Advisory Committee, the department head and the Dean of Engineering before going to the Office of Graduate Studies.
14. As time for internship nears, the student prepares a list, for use in soliciting the position, of initial objectives to accomplish during the internship. The student begins contacting companies regarding a possible internship. It is the student's responsibility to obtain an appropriate internship.

Assistance from the chair, faculty and college is provided when possible.

15. Once an internship position is located, the student submits the Internship Proposal, including preliminary internship objectives, internship supervisor's resume and the date the proposed internship will begin. Usually the



Kyle Field Football Stadium

committee will discuss the proposal in a review meeting with the student. The proposal is signed by the committee and forwarded to the Dean of Engineering and Office of Graduate Studies.

16. The student must be continually enrolled in the University while on internship. A student may not enroll for more than 4 credit hours of ENGR 684 per regular semester, but must be enrolled for at least one calendar year. Continued enrollment beyond the internship period is governed as described in "Internship."

17. The student submits periodic (monthly, quarterly, etc.) reports as required by the Advisory Committee during the internship.

18. No later than six months after internship commencement, the Final Internship Objectives must be submitted to the committee chair for committee approval and forwarding to the Dean of Engineering and the Office of Graduate Studies. Candidacy for the D.Eng. degree is requested by the Advisory Committee Chair through the Dean, College of Engineering.

19. Upon completing the internship, the student prepares a Record of Study and submits a copy to each Advisory Committee member, the Graduate Council Representative and the Dean of Engineering at least two weeks prior to the Final Examination.

20. The student applies for graduation before the deadline in the semester when graduation is anticipated.

21. The student works with the committee chair to schedule the Final Examination and has the chair notify the Dean of Engineering and Office of Graduate Studies of the date at least two weeks prior to the examination date. The examination date must be in accordance with the Office of Graduate Studies calendar.

22. After the Final Examination, the Advisory Committee chair completes the "Report of Final Oral Examination for Doctoral Candidate" and returns it to the Office of Graduate Studies with a copy to the Dean of Engineering. Also, if the student passes the Final Examination, committee members may sign the approval page of the Record of Study.

23. The student fulfills the requirements of the university by submitting an archival copy and paying processing fees.

If the student enters the program with an appropriate master's degree:

1. The student performs steps 1-10 above.
2. The student takes the D.Eng. Qualifying Examination no later than the second semester of enrollment. The Dean of Engineering and the Office of Graduate Studies are notified at least two weeks prior to the examination date.
3. Upon passing the D.Eng. Qualifying Examination, the student follows the remainder of the above lists, beginning with step 13.

Checklist for Advisory Committee Chair

If a student enters the program with an appropriate B.S. degree:

1. The department coordinator or department head assists the student in the selection of a chair of the Advisory Committee. The remainder of the committee is then selected.
2. The Advisory Committee chair assists the student in filing a degree plan for the master's degree before the end of the student's second semester in the program. The degree plan must be approved by the Dean of Engineering before the chair sends it to the Office of Graduate Studies.
3. During the last semester of the master's program, the chair assists the student in scheduling final examinations for the master's degree, and at the same time schedules the D.Eng. Qualifying Examination, which has a separate written and oral test, according to departmental guidelines. The Dean of Engineering and the Office of Graduate Studies must be notified at least two weeks prior to the examination dates, which must be in accordance with the Office of Graduate Studies calendar.
4. If the student passes the D.Eng. Qualifying Examination, the chair assists the student in preparing a degree plan for the D.Eng. The degree

plan must be approved by the Dean of Engineering before going to the Office of Graduate Studies. If a degree plan cannot be filed immediately, the student files a letter of intent with the Office of Graduate Studies.

5. The chair monitors the student's academic progress to ensure that a 3.00 grade point ratio or above is maintained during the program.

6. The chair may assist the student in planning or locating internship possibilities and will instruct the student on how to prepare the Internship Proposal, including preliminary objectives.

7. The chair receives the Internship Proposal, including preliminary objectives and resume of the suggested intern supervisor. The chair schedules an Internship Proposal review meeting of the committee and announces it at least two weeks prior to the date to the Office of the Dean of Engineering and the Office of Graduate Studies. This meeting is the preliminary examination (see "Examinations"). The chair reports the results and forwards the approved proposal to the Dean of Engineering and the Office of Graduate Studies.

8. During the internship the chair checks that the student has registered for no more than 4 hours of ENGR 684 each semester. The internship must last at least one calendar year, i.e., two academic-year semesters and one full summer.

9. During the internship the chair ensures that the student submits periodic (monthly, quarterly, etc.) reports as required by the Advisory Committee, including the Final Internship Objectives document of the internship within six months of the commencement of internship. The entire committee approves these objectives, and they are forwarded through the Office of the Dean of Engineering so the student can be admitted to candidacy.

10. When the student completes the internship, the chair ensures that the student prepares a Record of Study and submits a copy to each committee member, and the Dean of Engineering.

11. The chair schedules the Final Examination and notifies the Dean of Engineering and Office of Graduate Studies at least two weeks prior to the examination date, which must be in accordance with the Office of Graduate Studies calendar.

12. After the Final Examination, the chair and committee members complete and return "Report of Final Oral Examination for Doctoral Candidate" to the Office of Graduate Studies with a copy to the Dean of Engineering. If the student passes the Final Examination, the chair asks the committee members to sign the approval page for the Record of Study and reports the results to the Office of Graduate Studies.

If the student enters the program with an appropriate master's degree:

1. The student must work with the department head or the departmental program coordinator to select a committee chair, then with the committee chair to select the remainder of the committee.

2. The student ordinarily must take the D.Eng. Qualifying Examination no later than the second semester of enrollment.

3. If the student passes the doctoral qualifying exam, the candidate then follows the remainder of the list for "student entering with B.S. degree," beginning with step 4.



Commencement Ceremonies in Reed Arena