

# Sibley School Governance Structure 2011 Revision

May 12, 2011

Disciplines $\Rightarrow$ Research Areas $\Downarrow$	Applied Mathematics	Dynamics, Systems & Controls	Fluid Dynamics	Solid Mechanics	Thermal Systems Engineering
Biomedical Mechanics	•	•	•	•	•
Energy		•	•	•	
Combustion			•		•
Materials				•	•
Nanoscience			•		•
Robotics	•	•			
Turbulence			•		
Wind Energy		•	•	•	
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Table 1: Proposed structure for the Sibley School. The ‘Research Areas’ listed are simply suggestions; these are defined by the faculty.

## 1 Background and Context

Following the merger of Mechanical & Aerospace Engineering and Theoretical & Applied Mechanics, the Sibley School updated its governance structure in May 2010 to reflect the larger and broader department. Having completed one year under the new structure several modifications are being proposed to make the governance better reflect what we actually do and to give research areas a stronger role in school planning and operations.

The changes proposed include: (a) Adding a charge for the M.Eng. committee, (b) Giving the graduate program committee responsibility to review graduate course offerings, (c) renaming “Groups” as “Disciplines” , (d) and distinguishing between areas that have substantial levels of activity and those that are not yet at that level, and (e) giving the large research areas a stronger role in school planning.

## 2 Framework

The framework is illustrated in the diagram shown in Table 1. Columns represent the “disciplines” and rows are the “research areas” representing cross cutting applications (some examples are given in the Table). The disciplines represent our curriculum to a large extent, and consequently will change over say decades, whereas research areas may evolve in shorter time scales with faculty interest and available funding. *Disciplinary leaders will be appointed by the director, in consultation with the faculty associated with that discipline. Research areas will appoint a leader of their choosing. The leader must be on record for the area to continue.*

### 3 Formal Structures within the Sibley School

1. *Disciplines.* The disciplines are the primary caretakers of the curriculum for each discipline at the undergraduate and graduate levels. Discipline leaders will organize regular meetings to discuss the curriculum; they can make suggestions for changes to the faculty. Annually they will make recommendations for courses to the Associate Director for Undergraduate Affairs. The AD has the final say. Disciplines also will oversee graduate student admissions for students applying to any of the three fields with interests lying within their discipline. Discipline leaders will make admission recommendations to the Directors of Graduate Study. Faculty choose the discipline to which they belong. All faculty must have an affiliation with at least one discipline.
2. *Areas.* Research areas consist of several faculty with a common interest in targeted research areas or applications. Research area leaders, at their discretion, will hold meetings of the members of their area to discuss research activities, funding opportunities, etc ... All research areas should be represented on the MAE web pages; the area leader is responsible for the content. All faculty are expected to identify with at least one research area.

Recognizing that research areas are of varying level of effort, we will distinguish research areas as "major" or "emergent". Major research areas will be defined as those with at least 10 Ph.D. students associated with them. Emergent research areas will be defined as those with fewer than 10 Ph.D. students.

Leaders of major research areas may participate in the graduate admissions process and make recommendations to the Directors of Graduate Studies. Leaders of the major research areas will be asked to serve on the planning committee (see administrative committees section) and are expected to look after curriculum in their area and make recommendations to the Director and Associate Director for Undergraduate Affairs.

#### 3. *Faculty Committees*

- Academic Committee: Review records of undergraduate students and issue appropriate academic actions. Review academic standards for the good standing and for affiliation, and propose changes as needed. Hear student appeals of the academic decisions of the Associate Director for Undergraduate Affairs. Assist in the review of transfer applications, affiliation applications, and graduation records. This committee consists of 4 faculty members with staggered 3-year terms, plus the Associate Director for Undergraduate Affairs (ex officio).
- Awards Committee: Promote the reputation of the Sibley School, primarily by preparing and nominating faculty for appropriate awards and prizes. These include Cornell and national teaching and advising awards, fellowship in professional societies, and membership in national academies. This committee consists of 3 faculty members with staggered 3-year terms, plus the Director (ex officio).
- Colloquium Committee: Organize the weekly MAE colloquium series. This committee consists of 2 faculty members with staggered 1-year terms.
- Faculty Recruitment Committee: Engage in a proactive search for new faculty, focusing on excellence and diversity. Review dual-career hiring opportunities proposed by other units. Review exceptional candidates who do not fit into current search areas. Review adjunct appointments. This committee does not take the place of ad-hoc committees

for faculty searches in specific areas. This committee consists of 3 faculty members with staggered 3-year terms, plus the Director (ex officio).

- Graduate Admissions Committee: Reviews all graduate applications to the Mechanical Engineering, Aerospace Engineering and Theoretical & Applied Mechanics fields and makes recommendations to the DGSs of the qualified applicants without consideration of student interests or the match with faculty in the three fields. The DGSs have the final say. This committee completes its work the week before classes begin in January. The committee consists of 10 faculty members with staggered 2-year terms, plus the Associate Director of Graduate Affairs (ex officio).
- Graduate Program Committee: Review and evaluate the programs of the graduate fields of Aerospace Engineering, Mechanical Engineering and Theoretical & Applied Mechanics, including Ph.D. curriculum, policies and field requirements. Review graduate level course proposals and make recommendations to the Director concerning these courses. Propose program and policy changes to the field faculty as needed. This committee consists of 4 faculty members with staggered 3-year terms, plus the Associate Director for Graduate Affairs, Directors of Graduate Studies for: Aerospace Engineering, Mechanical Engineering and Theoretical & Applied Mechanics. Faculty members will be chosen to ensure representation across the school
- M.Eng. Committee: Review and evaluate the M.Eng. program including curriculum, degree requirements and admissions. Review the availability and quality of M.Eng. projects. Oversee annual surveys of graduating M.Eng. students and of five-year M.Eng. alumni. Annually report on the status of applications, admissions, and program to the faculty. Propose program and policy changes to the department as appropriate. Serve as advisors to incoming M.Eng. students at the beginning of the fall and spring terms (until they have a project). The committee consists of 3 members with staggered three year terms plus the M.Eng. Director.
- Undergraduate Program Committee: Review and evaluate the undergraduate program, including the curriculum, teaching and advising. Review and evaluation will occur both proactively (making use of appropriate tools, including surveys), and also in response to faculty proposals and requests. Make recommendations for changes in the undergraduate program as needed. Report annually to the faculty on findings and recommendations. Prepare for accreditation of the undergraduate program. This committee consists of 5 faculty members with staggered 3-year terms, plus the Associate Director for Undergraduate Affairs (ex officio).
- Nominations Committee: Nominate faculty to Sibley School Committees. This committee consists of 4 faculty members with staggered 3-year terms, plus the Director and the Associate Director for Undergraduate Programs (ex officio).

At the end of each academic year, committee chairs are expected to provide a brief report to the Director summarizing the committee's activities, accomplishments and plans for the following year.

#### 4. *Administrative Committees*

- Executive Committee: Meets weekly to discuss day-to-day operations and challenges. The committee consists of the Director, Associate Director for Undergraduate Affairs, Associate Director for Graduate Affairs, Directors of Graduate Studies, MEng Program

Director, Department Manager and the Hansen Director of Undergraduate Laboratories. The Planning Committee will join this meeting at the Director's discretion to report on their activities.

- **Planning Committee:** Looks at long term planning for the department. May also assist in planning the curriculum for the next AY. The committee consists of the discipline leaders, and up to 4 major research area leaders (The Director will make this selection from among the major area leaders in a manner that provides balance across the school) plus the Director, Associate Directors and M.Eng. Program Director (ex officio).

## 4 Processes and Responsibilities

1. *Faculty Hiring.* Faculty hiring is the responsibility of the school. With input from the faculty and Planning Committee, and permission from the College Strategic Oversight Committee (SOC) and Dean, the Director will identify search area(s) at the beginning of the AY. The Director will appoint an *ad hoc* search committee, with a chair, for each search. The committee runs the search. They are responsible for advertising the search widely, as well as making every possible effort to enrich the pool of women and URM applicants. They must follow the procedures of the SOC. They select the candidates who will interview and make their recommendation to the school. The school will vote and make its recommendation to the Director. The final decision is made by the Director, but must be approved by the SOC and Dean before the offer can be made. Offer letters are vetted by Director of Human Resources for the college.
2. *Graduate Admissions.* Working with the DGSs, the Associate Director for Graduate Affairs will oversee the Graduate Admissions Committee through the process of selecting the list of qualified applicants in January. Once they are selected, Disciplines and Major Areas are free to make recommendations to the DGSs for fellowship admissions from the list. Individual faculty can select students for GRAs from the list if they have not been offered a fellowship. The DGSs have the final say on all offers.
3. *Graduate Program.* The Graduate Ph.D. Program is directed by the Associate Director of Graduate Affairs (Director's appointment) and the Directors of Graduate Studies (Field vote). The Graduate Program Committee will consider cross-field issues that require faculty input and will make recommendations to the fields as necessary.
4. *M.Eng. Program.* The M.Eng. program for all 3 Fields is directed by the M.Eng. Program Director (Director's appointment). The M.Eng. committee will assist in advising, M.Eng. admissions, will consider broader issues that require faculty input and will make recommendations to the faculty and the Director as necessary.
5. *Undergraduate Program.* The Undergraduate Program is directed by the Associate Director of Undergraduate Affairs (Director's appointment). Broader issues that require faculty input will be handled by the Undergraduate Program Committee. The Academic Committee will oversee the actions taken for students experiencing academic difficulties.
6. *Teaching Assignments.* Teaching assignments will be made by the Associate Director of Undergraduate Affairs, in consultation with the Director. Teaching loads will be based on research activity and the number of graduate students supported by long term TAs.

7. *TA Assignments.* TA assignments will be made by the Associate Director for Undergraduate Affairs, in consultation with the Director and Associate Director for Graduate Affairs.