

# Engineering Field of Study Advisory Committee

November 28, 2016, 10:10 – 2:30  
Board Room

## Minutes

### Members present:

Institution	Member	Present/Absent
Del Mar College	Dr. Daniel D. Lindley	Present
El Paso Community College	Mr. Mariano Olmos	Absent
Houston Community College	Mr. Bartlett M. Sheinberg	Absent
Kilgore College	Mr. Dann McDonald	Present
Lamar University	Dr. Victor Zaloom	Present
McLennan Community College	Dr. April K. Andreas	Absent
Prairie View A&M University	Dr. Shield Lin	Present
Richland College, DCCCD	Mr. Roderick R. Crowder	Present
San Antonio College, ACCD	Dr. Dan G. Dimitriu	Absent
South Plains College	Dr. Ramesh Krishnan	Absent
South Texas College	Mr. Martin W. Knecht	Present
Tarleton State University	Dr. Denise Martinez	Present
Tarrant County College	Dr. Ruichao "Rachel" Zhang	Present
Texas A&M University - Commerce	Dr. Ilseok "Eddie" Oh	Present
Texas A&M University - Kingsville	Dr. Larry Peel	Present
Texas State University	Dr. Lawrence Larson	Present
The University of Texas - Arlington	Dr. Pranesh B. Aswath	Present
The University of Texas - Austin	Dr. John G. Ekerdt	Present
The University of Texas - El Paso	Dr. Patricia Nava	Absent
The University of Texas at Tyler	Dr. Michael McGinnis	Present
The University of Texas of the Permian Basin	Dr. Forrest W. Flocker	Present

### Coordinating Board staff present:

Rex Peebles  
Garry Tomerlin  
Mindy Nobles

The meeting was called to order at 10:03 a.m. Following the chair's welcome and member introductions, the minutes were approved with two changes:

- John Ekerdt's name is misspelled; please correct.

- Mindy Nobles asked that the wording of her statement indicating a receiving institution must give credit toward degree for “that specific designated Engr-FOS course” be corrected. Correct wording: credit must be given toward the major for each designated Engr-FOS course or a course with equivalent content.

Dan Lindley nominated Rodrick Crowder to fill the empty co-chair seat. Mr. Crowder seconded. Mr. Ekerdt moved to accept the nomination by acclamation. Larry Larson seconded. Mr. Crowder was seated as co-chair.

No public testimony was offered on the agenda items.

Ms. Nobles offered opening comments including staff’s hope that committee will conclude its business before two-year memberships expire in March; legislative concern that courses transfer among institutions; update on staff’s overall progress on FOS initiative; extent and growth of FOS curricula at two-year colleges; and clarification that committee must follow Roberts Rules of Order.

Garry Tomerlin noted the importance of the work the committee is doing and thanked committee for their work to date. Rex Peebles added his thanks for the time and effort committee members have put into their work.

#### AGENDA ITEM V: DISCUSSION OF SUBCOMMITTEE RECOMMENDATION FOR FOS TRACK IN CIVIL ENGINEERING, INCLUDING ACGM-RELATED RECOMMENDATIONS

Mr. Ekerdt said that UT gives credit for ENGR 2402 Dynamics or ENGR 2334 Thermodynamics and said that his faculty find ENGR 2402 acceptable. He introduced discussion of ENGR 1201 Introduction to Engineering, relating in summary UT faculty’s concerns about the course.

The committee discussed ENGR 1201, with several members pointing out its value to potential engineering students and others noting its limitations for four-year curricula. Larry Larson moved to delete the course from the Civil Engineering FOS track. Pranesh Aswath seconded. The motion passed: 14 for, 1 against.

Mr. Aswath spoke about the limitations of MATH 2320 Differential Equations for UTA’s Civil Engineering curriculum, saying that the department requires Differential Equations and Linear Algebra (MATH 2321 or 2421).

Mr. Aswath also said that CHEM 1411 Chemistry I was problematic and asked whether a separate committee was working on the creation of Chemistry for Engineers, as discussed at the April 29<sup>th</sup> meeting. Ms. Nobles said no committee or subcommittee was studying the issue and that the committee could form a subcommittee or work group for that purpose. The committee discussed the merits of creating a Chemistry for Engineers course. Dann McDonald pointed out that the current agenda item is discussion of the Civil Engineering track. Chair Denise Martinez said the committee could come back to the discussion under agenda item VI.

Mr. Ekerdt moved to table the discussion until agenda item VI. Mr. Crowder seconded. The motion passed unanimously.

Mr. Ekerdt moved that the committee adopt the Civil Engineering track without ENGR 1201 and including the remaining courses as part of Civil Engineering FOS. Forrest Flocker stated his concerns about ENGR 2332 Mechanics of Materials. After a discussion of the course, Mr. Ekerdt withdrew the motion.

Dann McDonald moved that the committee adopt the Civil Engineering track without ENGR 1201 and ENGR 2332 and that it add the same comments about ENGR 2332 adopted with Mechanical Engineering track. Mr. Flocker seconded.

Discussion resulted in two amendment motions:

- Mr. Aswath made a motion to add replacement of MATH 2320 with MATH 2321/2421. Victor Zaloom seconded. The motion failed: 2 for, 13 against.
- Shield Lin made a motion to remove CHEM 1411 and add Chemistry for Engineers as developed by a committee work group and adopted by the full committee. Mr. Aswath seconded. The motion passed: 11 for, 3 against. One committee member was away from the table.

The motion as amended was to adopt the Civil Engineering track with the following changes:

- Strike ENGR 1201;
- Strike ENGR 2332, adding the comments about ENGR 2332 adopted with the Mechanical Engineering track; and
- Strike CHEM 1411 and add Chemistry for Engineers at a subsequent meeting, contingent development of the course by a work group and adoption by the committee.

After further discussion of CHEM 1411, the motion passed: 12 for, 2 against. One committee member was away from the table.

The committee broke for lunch 11:50-12:30.

#### AGENDA ITEM VI: DISCUSSION AND CONSIDERATION OF RECOMMENDED CHANGES TO ACGM COURSES CONTAINED IN APPROVED DISCIPLINARY TRACKS

Mr. Crowder summarized the arguments for a combination of CHEM 1411 AND 1412 in FOS tracks and for Chemistry for Engineers. Following discussion, Mr. Lindley made a motion to form a task group of committee members to develop a model for Chemistry for Engineers for consideration at a subsequent meeting of the committee. Mr. McDonald seconded. The motion passed unanimously.

Ms. Martinez called for volunteers to serve on a Chemistry for Engineers work group. Mr. Lindley, Mr. Peel, Mr. Ekerdt, and Mr. Aswath volunteered. Ms. Martinez said she will ask

committee members not present whether they are interested in serving on this work group and any others formed.

Ms. Martinez called for discussion of ENGR 2332. Following discussion, Mr. Lindley moved that a work group develop prerequisites and learning outcomes for ENGR 2332 and consider including a lab component in the group's recommendation to the committee. Mr. Peel seconded. The motion passed unanimously. Volunteers for the committee were Mr. Flocker, Ms. Zhang, Mr. McDonald, and Mr. McGinnis.

The committee discussed forming a task group for ENGR 2307/2107, which was recommended for restoration to the ACGM for Mechanical Engineering. No motion was made as the committee's previous recommendation with regard to the Mechanical Engineering FOS track was to restore ENGR 2307/2107 to the ACGM, and not to revise it.

Ms. Martinez called for discussion of ENGR 1201. The committee discussed whether its previous motion calling for a Board-appointed committee to review the course should stand for its recommendation to the Board or whether it should consider a work group with the idea of restoring it to one of the FOS tracks. The committee decided against forming a work group since the course will not be included in any adopted FOS track.

Mr. Ekerdt made a motion that the committee form a task group to review ENGR 2304 for the suitability of its content for four-year Electrical Engineering curricula, considering future directions for the EE discipline. Mr. Crowder seconded. After discussion, the motion passed unanimously. Mr. Crowder, Mr. Ekerdt, Mr. Larson, and Ms. Martinez volunteered to serve on the work group.

#### AGENDA ITEM VII: DISCUSSION AND CONSIDERATION OF OVERALL RECOMMENDATIONS TO COORDINATING BOARD

Committee members asked Ms. Nobles to review previous committee meetings to clarify whether previously adopted recommendations regarding a generic FOS for Engineering (calculus and physics) and review of ENGR 1201 still stand or whether the committee had rejected them upon receiving public comments and forming disciplinary subcommittees.

#### AGENDA ITEM VIII: DISCUSSION OF TIMELINE AND FUTURE MEETING DATE(S)

Ms. Nobles told the committee she has tentatively reserved two dates in January and that the committee can also meet in February. Members asked Ms. Nobles to seek meeting dates in February to give the task groups time to meet.

The meeting was adjourned at approximately 1:35.