



# Texas Higher Education Coordinating Board

**Texas Higher Education Coordinating Board and Lumina Foundation for Education**

**Minutes  
Tuning Oversight Council for Mathematics, Business, and Information Systems  
February 24, 2012  
10:00 a.m. to 3:00 p.m.**

Wyndham Garden Hotel and Conference Center  
Executive Learning Center  
Austin, Texas

**Members Attending:** Michael Abebe, Mikhail Bouniaev, Tammy Calhoun, Gordon Carruth, Amme Cole, Teresa Conover, Mary Lou Crowl, Raven Davenport, Robert Diersing, Curt Eley, Mackinzee Escamilla, Bruce Glover, Doug Hale, Barbara Hewitt, Vanessa Huse, Judy Jernigan, Charles Johnston, Gerald Kohers, Richard Lawrence, Maureen Loiacano, William Louden, Richard Mark, Lanny Martindale, John Masselli, James Nelson, Marjorie Pannell, Ralph Penn, Kay Pleasant, Mahmoud Quweider, Clint Richardson, Ava Russell, James Sells, Ricardo Torrejon, Deborah Welch, John Windsor

**Invited Guests:** Harrison Keller

**Facilitators and Other Attendees:** Charlotte Biggerstaff, Reinold Cornelius, Chris Fowler, Suzanne Pickens, Debbie Rodriguez, Sarah Rondinelli, Mary Smith

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Registration was held and a Continental Breakfast served between 9:30 and 10:00 a.m.  
The meeting convened at 10:00 a.m.

## **Welcome, General Comments, and Timeline**

Dr. Mary Smith opened the meeting by welcoming and thanking members of the Council and their respective institutions for their willingness to serve on the 2012-13 Tuning Oversight Council. She gave a brief history of tuning in Texas. The goal of this project is to provide the opportunity to attend college to all students, and to make the process of earning a degree more affordable both for the student and the state. Tuning is being integrated into the course-level alignment work that was piloted in creating the Voluntary Mechanical Engineering Transfer Compact in 2009. She defined tuning as a "faculty-led project designed to define what students need to know and understand and be able to do with a degree in a particular field and at certain points along the path to the degree." The work holds promise, as it helps students know where they are going and helps reduce out-of-pocket expenses. She encouraged members of the Council to take time to read more about the Tuning process from materials presented on the flash drives, and in particular, the testimony presented by Dr. James Nelson to the Texas House Higher Education Committee last week. There is much interest at the legislative level in the work of the Tuning Councils.

Dr. Smith introduced other Texas Higher Education Coordinating Board (THECB) personnel involved with the project. She then discussed the processes of selecting a chair and co-chair for the Tuning Council and for each discipline-specific committee. She had each member briefly introduce themselves, and asked that they follow that in each breakout session with a discussion of how each member became interested in his/her own specific discipline.

Dr. Smith asked Dr. Kevin Lemoine of the THECB staff to facilitate the election of the Council chair and co-chair. Dr. Lemoine mentioned that members would have the opportunity to nominate other individuals to be Chair of the Council, but that recently, the Coordinating Board Chair, Fred Heldenfels, asked Dr. James Nelson, Dean of the College of Engineering and Computer Science at The University of Texas at Tyler, to continue working with the Tuning Council, as Dr. Nelson has served as Council chair for the past two years. Dr. Nelson was nominated and accepted the nomination. No other nominations were submitted, and Dr. Nelson was elected unanimously as Chair of the Council. Dr. Lemoine then explained that the co-chair of the Council usually is a representative of a community college, and that James Sells, Department Chair, Mathematics, San Jacinto College-Central, has been recommended by THECB staff to serve. James accepted the nomination. No other nominations were submitted, and Mr. Sells was unanimously elected as Co-Chair of the Council.

### **Charges to the Council**

Dr. Smith then presented the charges to the Council, which included:

1. To create clear learning outcomes in each specific discipline, but not to specify curriculum or pedagogy.
2. To assist the Coordinating Board staff in facilitating competency surveys to students, recent graduates, and employers.
3. To assist the Coordinating Board staff in facilitating surveys regarding deliverables to statewide discipline faculty.
4. To map the employability of graduates for each discipline.
5. To draft degree profiles for each discipline that are grounded in specific learning outcomes.
6. To identify a set of lower-division courses which provide the necessary academic background so students can migrate seamlessly into another institution for the purpose of completing a baccalaureate degree.
7. To assist in the assessment of this process and the recommendations for future work.

### **Tuning and Course Alignment Process Overview**

Dr. Smith introduced the process of tuning. The aim of tuning is to create a shared understanding of what a student should know and be able to do upon graduation with a degree, as well as at various stages along the path of attaining the degree. The aim of fine-tuning is to identify a common set of lower-division courses which provide the necessary academic background and foundation so students can move seamlessly into the upper-division for the purpose of completing a four-year degree, and align the learning outcomes of those courses to ensure preparation for the next level.

Tuning is a key element of Europe's Bologna Process, designed to be a means of promoting transparency, coordination, and quality assurance among institutions of higher education in Europe. It involves creating a framework to establish clear learning outcomes and expectations in each subject area while balancing the need for programs to retain their autonomy and flexibility. It is intended to better establish the quality and relevance of each degree. The idea is to think about the discipline in a holistic sense.

The hope is that transfer will be facilitated, and clear learning outcomes will be realized to help students and faculty members recognize the value and relevance of the degree as it relates to society.

Fine-tuning, or course-level alignment, involves identifying the common lower-division courses that act as a foundation for the upper-division completion courses. Once these courses are identified, a subcommittee of subject-area experts will work together to determine course alignment (course description, pre- and co-requisite courses, and learning outcomes) for inclusion in the *Lower-Division Academic Course Guide Manual* (ACGM). The ACGM is the official list of approved courses for general academic transfer that may be offered for state funding by public community and technical colleges in Texas.

Dr. Smith displayed the sequence of courses in the Voluntary Mechanical Engineering Transfer Compact. Many STEM fields require long prerequisite chains, so it is advantageous to diagram the courses for students' information. Texas is now branching into additional high-demand fields. She then displayed a course description with learning objectives from the new ACGM. She emphasized that the idea is not HOW a teacher teaches the class, but what students have gained by the end of the class that is the focus of tuning. Dr. Smith and Dr. Lemoine then entertained questions from the group.

A question was raised regarding transferability of courses listed in the ACGM. Dr. Lemoine clarified that courses MUST be accepted in transfer by universities, but do not necessarily have to transfer into a degree program.

A question was raised regarding transfer of Field of Study courses in Business and their inclusion in the ACGM. Dr. Lemoine indicated that the work of the present Council would, indeed, have the capability of impacting the Field of Study in each area.

Transfer compacts were clarified as including only lower-division courses. Dr. Nelson discussed the need for foundational courses at the lower-division level that prepare students for success in different programs, which tend to have some slightly different emphases at different institutions.

A Council member asked about core curriculum courses and their impact on different disciplines being tuned. The example was given of the importance of a composition class to a business major. Dr. Lemoine discussed the fact that, although core discipline experts would write the learning outcomes for their own classes, this Council or committees would be able to have input into these outcomes for their specific disciplines if it is felt that the courses greatly impact their fields. Dr. Nelson clarified that such courses can be included in the prerequisite lists, but will ultimately be rewritten by subject-area experts and can be guided by other fields.

These transfer compacts are voluntary in Texas at this time. It is felt that all community colleges should sign on, as there is nothing in the compacts that requires that all courses be taught at a particular community college. Whatever courses from each compact are actually taught at the community college can be part of the compact. The community college agrees to teach the course as it appears in the ACGM, and universities agree to accept the courses AND apply them to the major program. For universities, there are some admission issues when degree programs are perennially at capacity and the university cannot guarantee acceptance to students completing the recommended coursework. However, these issues are being addressed through the language of the compact in the hope that all institutions statewide will become voluntary members of these compacts.

Dr. Nelson discussed procedures for faculty members statewide to essentially agree on what individual courses should "look like" and assess the courses for content and student learning outcomes being achieved. This does not interfere with academic freedom; foundational knowledge is the same for all students completing the course – the WHAT. The HOW is the academic freedom to enrich this foundation as each instructor or professor believes it should be enriched. An assessment process is being determined for institutions to get together regionally on a three-year cycle to determine whether or not course objectives are being realized.

A discussion began regarding the distinction between Management Information Systems (MIS) and Computer Information Systems (CIS). While there are a number of similarities as well as distinctions, most often CIS programs are housed in the Computer Science departments, while MIS programs tend to be part of the school of Business.

### **Navigating the Tuning Process in the Context of a Body of Knowledge**

Chair Nelson began his presentation by clarifying the charges to the Council and its respective discipline-specific committees. He told members that they are to define a body of knowledge for their discipline. A body of knowledge is not courses, but things a professional should be able to do (skills, knowledge, attitudes) that must be achieved at some point after graduation. In building this body of knowledge, an examination of expectations for professionals must be made. The educational pyramid must also be considered. Pieces must fit together at different levels. Students develop all the way through, and lifelong learning needs to be instilled in students. General and specialized accreditation also must work together.

To address the question of whether or not the transfer consideration is really important, he quoted a statistic showing that, in Texas, 80 percent of students graduating with degrees in 2010 had credit from more than one institution. Within the body of knowledge exists a formal educational piece which includes the student outcomes (what students should be expected to be able to do and levels of achievement); critical thinking skills, which come from the core curriculum; and a foundation for the professional practice.

For the levels of achievement, Bloom's taxonomy should be considered. Not every level of Bloom's will be achieved during an educational program. First, each of the four discipline-specific committees that make up the Council will define the set of outcomes needed for the discipline, then determine the Bloom's levels at which students will function in each of those along the pathway to a degree. The levels that have been considered are the completion of high school, the completion of the first two years (community college), the completion of a bachelor's degree, and the completion of a graduate-level education.

Curriculum is not a consideration in this process. Curriculum decisions belong to the faculty of a given institution. What is being considered here should be what courses should be completed at the community college level for successful transfer to a baccalaureate program. It really is a vertical and horizontal alignment. The vertical alignment is a pathway, or selection of the right courses. The horizontal alignment looks at the expectations, the needs of the program of study, and makes sure that courses are taught with the same content and rigor across institutions. These considerations will help students toward timely completion of their degrees, thereby saving money at both the student and state levels.

To achieve horizontal alignment (or fine-tuning), syllabi for a particular course are gathered from across the state and compared and contrasted. Common and non-common elements are then identified, and a consensus course description and learning outcomes are written on the basis of these syllabi with the help of subject matter experts in order to satisfy the desired content. Subject matter experts will be the ones actually determining the content and learning objectives of the course. This ensures that the same content and rigor will be provided wherever the course is taken. Assessment and accountability will be done cyclically.

The overriding benefit of this process is that it enables the facilitation of efficient pathways to degree completion and an assurance that students are competent and prepared as they move through their education pathway to their chosen career. In Texas, 66 to 70 percent of first-time freshmen are attending community colleges. For the student, it will assist in determining how to achieve educational goals through clarifying the available pathways, and by increasing cost-efficiency. These pathways are presented as a coherent sequence of courses for timely completion.

Dr. Nelson recommended considering the industrial component, too, in the levels of achievement. He concluded his presentation by restating the charges presented by Dr. Smith, and explained how activities in each one will contribute to the finished product.

Dr. Nelson addressed questions and concerns from the audience. He restated that assessment of courses in each compact will be done regionally on a three-year cycle. He reemphasized that fine-tuning is concerned with the WHAT (content and outcomes) not the HOW (methods for teaching) so that the result is the desired foundational knowledge plus the focus preferred by individual institutions and instructors.

The guiding principles ensure mobility and transparency for students; ensure broad participation by institutions statewide; are cognizant of program and institutional accreditation; and achieve consensus on foundational knowledge.

### **Sample Draft Deliverables**

Dr. Reinold Cornelius of the THECB staff presented the Civil Engineering product from the 2010-11 Tuning Oversight Council to allow committees to see what the tuning documents will look like when complete. He emphasized the importance of communication between faculty from both community college and university levels. The addition of a student member may provide excellent insights. It is recommended that professional societies and accrediting bodies be considered as well.

He displayed and explained the tables and charts that will be included in the completed packet. He described the process used for generating this information.

### **Preparation for Breakout Sessions**

Dr. Nelson described the activities for the breakout sessions. He referred members to the separate agenda and to folders on the flash drives for specific information. He asked members to begin the Institutional Review Board (IRB) process as soon as they return to their home campuses so that the distribution of surveys can begin as quickly as possible.

### **Breakup into Discipline-Specific Committees/Lunch with Team**

Groups met with their liaisons, and each group elected a chair and co-chair as listed below:

Blanco Room: Business Committee

- Chair – Teresa Conover, University of North Texas
- Co-Chairs – Amme Cole, Midland College, and William Louden, Austin Community College

Guadalupe Room: Mathematics Committee

- Chair – Doug Hale, The University of Texas of the Permian Basin
- Co-chair – Maureen Loiacano, Lone Star College - Montgomery

Barton Creek Room: Computer and Information Sciences

- Chair – Kay Pleasant, The University of Texas at Tyler
- Co-chair – Mackinzee Escamilla, South Plains College

San Gabriel Room: Management Information Systems

- Chair – Curt Eley, The University of Texas at Dallas
- Co-Chair – Gordon Carruth, Lone Star College - Montgomery

Boxed lunches were served to provide time for a working lunch. Training was provided to each group on LiveMeeting and Sharepoint procedures.

### **Wrap-up, Q&A, Looking Ahead, and Next Steps**

The general meeting reconvened at 2:35 p.m. Dr. Nelson reminded Council members to complete the evaluation form. He reminded the group to begin the IRB process as soon as possible. Surveys gather no personal data, so approval should be quick. He directed attention to the tuning timeline and recommended scheduling virtual meetings as soon as possible.

### **Adjournment**

Dr. Nelson stated that this work has great potential for national attention. There was a motion to adjourn the meeting, which was seconded, and the meeting was adjourned at 2:55 p.m.