Note: Course changes and additions will not take effect until they are listed in the graduate catalog. Items marked with an asterisk (*) must have approval by the Texas Higher Education Coordinating Board before listing in the graduate catalog. Items marked with a plus (+) must be approved by the Department of Education before being listed in the graduate catalog.

I. ANNOUNCEMENTS

II. MINUTES

III. CHAIR / TGS DISCUSSION ITEMS

IV. REQUEST FOR NEW COURSES

College of Engineering
Department of Computer Science and Engineering

Consults have been conducted with CVAD, INSD, IS and ITDS.

- MOVE TO VOTE ON ITEMS IV-1. AND IV-2. AS A BLOCK – APPROVED
- ITEMS IV-1 AND IV-2 UNANIMOUSLY APPROVED

IV-1. CSCE 5310 – Methods in Empirical Analysis – 3 Hours

Description: Introduction to applied analysis. Topics include concepts in the design of empirical computer science research and the application of the appropriate associated statistical analysis methods; the nature and importance of scientific hypotheses in computer science, the design of valid experiments to test such hypotheses, and the basic techniques of applied statistical analysis including the exploration of the meaning of results and methods of describing data on individual variables and examining association between variables including estimation, tests of mean differences, differences in distributions, and correlation between variables; random sampling, probabilities, and independent and identically distributed data concepts are discussed as a basis for understanding how to infer results from samples to the populations from which they are drawn.

Justification: These are critical skills for any graduate student, whether pursuing a career in research or a position in industry that involves evaluating alternatives. These skills are currently overlooked in the department leading to numerous cases where experimental designs do not actually provide the evidence necessary to support the research hypotheses, claims or conclusions. Courses like this are taught in most other departments, but most focus on the types of data seen and experiments conducted within their department or in the other extremely are too general for students to be able to easily relate and integrate the knowledge. This course will focus on concepts directly relevant to computer science and data scientists.

IV-2. CSCE 5320 – Data Visualization – 3 Hours

Description: Introduction to visualization methods in data exploration. Topics include the use of space, form, and color to communicate information; visualization of multi-dimensional data; data reduction methods such as principal component analysis and regression; methods for special domains such as geographic data and large graphs; and designing and implementing interactive interfaces.

*Indicates THECB approval required
Exploratory data analysis is recognized as an important area of Data Science and the use of visualization methods are a key component for doing so. Yet many graduates are not aware of the effect of wise use of space and color in the display so information can affect understanding. An important aspect of an engineer's responsibility is communication. This course will inculcate knowledge of both ergonomic factors for conveying the meaning of data but also the use of special tools, data manipulation languages and graphical illustrators that assist designers in the task of information dissemination.

**College of Information**

- MOTION TO VOTE ON ITEMS IV-3 AND IV-4 AS A BLOCK – APPROVED
- ITEMS IV-3 AND IV-4 UNANIMOUSLY APPROVED

**Department of Linguistics**

**IV-3. LING 5305 – Morphology – 3 Hours**

**Description:** Core concepts of word structure and different theories of word formation are used to analyze data from a variety of languages. Students consider the relation of morphology to language change.

**Justification:** Morphology is a required foundational course for Linguistics degree programs.

**IV-4. LING 5415 – Computational Linguistics II – 3 Hours**

**Description:** Advanced concepts and applications in computational linguistics including principles of linguistic annotation and its evaluation; supervised and semi-supervised classification, unsupervised classification; critical reading of scientific papers in CL; and quantitative reasoning and analytic thinking skills.

**Justification:** Computational Linguistics II will provide students with required proficiencies to be competitive for CL jobs in industry and for PhD programs in CL.

**College of Music**

Consult has been conducted with the Department of Dance and Theatre to cross-list with DANC 4700 Composer/Choreographer Collaboration.

- UNANIMOUSLY APPROVED

**IV-5. MUCP 5700 – Composer/Choreographer Collaboration – 3 Hours**

**Description:** A hands-on course exploring collaboration between composers and choreographers, which provides a framework for the creation of new music/dance collaborative projects.

**Justification:** This course has been taught in conjunction with DANC 4700 Composer/Choreographer Collaboration for the past few years under the general listing of MUGC 5890. We would like to provide an MUCP course listing to indicate that this is a regularly scheduled composition course that may be taken to fulfill requirements for graduate degrees in music composition.

**V. REQUEST FOR ADD OR DELETE OF A DEGREE/ MAJOR/ PROFESSIONAL FIELD/ CONCENTRATION/ OPTION/ MINOR/ CERTIFICATE**

**College of Engineering**

- UNANIMOUSLY APPROVED

**Department of Computer Science and Engineering**

**V-1. Add Data Science concentration to the Executive Master of Science in Computer Science.**

**Description:** The Executive Master of Science in Computer Science at Frisco program provides an opportunity for experienced professionals to obtain a high-quality master's degree in Computer Science targeted toward industry professionals of today and tomorrow. A unique aspect of the EMCS program is the collective-professional experience of its participants, which greatly
enriches the educational environment. A team approach is often used to allow for sharing of diverse perspectives on various topics; this interaction results in challenging and stimulating experience providing for maximum return on time and resources invested.

**Justification:** Adding Data Science concentration to Executive Master of Science in Computer Science EMCS

**Toulouse Graduate School**

Consults conducted with Information Science, Learning Technologies, and Computer Science. Center for Interdisciplinary Studies

- **UNANIMOUSLY APPROVED**

V-2. Add Computational Linguistics **concentration** to the Interdisciplinary Studies Master of Science.
Description: The interdisciplinary studies program offers students a high degree of flexibility in designing a program of study that cuts across disciplinary boundaries. Applicants to the master's program can pursue one of two approaches — either a self-styled plan or a recognized concentration. Under a self-styled plan, students design a program to address a particular intellectual interest or study a multidisciplinary issue that combines existing courses from any graduate area of the university. Applicants should contact the Graduate School to discuss their intention to seek a self-styled plan. A recognized concentration provides more structure in the courses taken and is built around a defined interdisciplinary theme. For either approach, the degree awarded upon completion of the program is a Master of Arts or Master of Science with a major in interdisciplinary studies.

Justification: The proposed interdisciplinary MS in with a concentration in Computational Linguistics will meet growing needs in industry and research institutions for skills in natural language processing and analysis of textual data. The proposed concentration in Computational Linguistics, the first of its kind in the state of Texas, will provide required knowledge and skills in Linguistics, Computer Science, and Information Science.

VI. REQUEST FOR GRADUATE ACADEMIC CERTIFICATES

VII. REQUEST FOR GRADUATE TRACK PATHWAYS

VIII. REQUEST FOR CHANGE IN PROGRAM/MAJOR/DEGREE/OPTION REQUIREMENTS

College of Information

Department of Library and Information Sciences

VIII-1. Requirements – Add INFO 5306, 5707, 5842, 5844 as a list of options that will fulfill the elective requirement for the Digital Curation and Data Management Certificate.

Justification: INFO 5841, INFO 5842, INFO 5843, and INFO 5844, which are currently listed as required courses for the GAC program, were developed and have been offered since 2011. However, some of the required courses are too specialized or too advanced for students. As such, this revision is necessary to market the GAC program to a wider audience of students.

College of Music

Consultations conducted with Dr. Frank Heidberger, Chair of Music History, Theory, and Ethnomusicology.

VIII-2. Requirements - Add MUET 5230 (Ethnomusicology Transcription and Analysis) to the menu of options for the Music, MA (Concentration in Music Theory).

Justification: Adding MUET 5230 (Ethnomusicology Transcription and Analysis) to the menu of options for the Music, MA (Concentration in Music Theory) will allow students to explore non-western genres and styles from an analytical perspective.

VIII-3. Requirements - Add MUET 5230 (Ethnomusicology Transcription and Analysis) to the menu of options for the Music, PhD (Concentration in Music Theory).

Justification: Adding MUET 5230 (Ethnomusicology Transcription and Analysis) to the menu of options for the Music, PhD (Concentration in Music Theory) will allow students to explore non-western genres and styles from an analytical perspective.

IX. REQUEST FOR DUAL OR JOINT DEGREE PROGRAMS

X. CONSENT CALENDAR

A. Course Changes

College of Information

*Indicates THECB approval required
Department of Linguistics

X-1. LING 5410 – Computational Linguistics (Course Title, Short Course Title, Description)

Course Title: Computational Linguistics > Computational Linguistics I
Short Course Title: Computational Ling > Computational Ling I
Description: Scientific study of language from a computational perspective. Topics include speech recognition systems, text-to-speech synthesizers, automated voice response systems, web search engines, text editors and language instruction materials. The first in a two-course sequence in the computational analysis of language. Focuses on mathematical and computational foundations for Computational Linguistics, as well as some core methods in natural language processing. Prior programming experience is not required.

College of Music

X-2. MUET 5230 – Ethnomusicology Transcription and Analysis (Description)

Description: History of musical transcription in ethnomusicology; theoretical approaches to sound recordings and their analysis; practical instruction in transcription, including technological applications. Analytical approaches to world music; theoretical and practical issues in transcription; development of new paradigms for transcription, analysis, and graphic representation of music.

*Indicates THECB approval required