ECE Special Topic Course Request

1. Course Title: Probabilistic Graphical Models	**2. Term and Year:** Spring 2018
3. Course Description (25 words or less): Provides students with an introduction to the theory and practice of graphical models, one of the most dominant frameworks in machine learning and artificial intelligence	**4. Level:** ☐ 18xx ☐ 28xx ☐ 38xx ☐ 48xx ☒ 88xx (Graduate)
5. Instructor(s) for this offering: Song (CSE) or Fekri (ECE) or Davenport (ECE)	**6. Campus(es) for this offering:** ☒ Atlanta ☐ GT-Lorraine ☐ GT-Savannah ☐ GT-SJTU ☐ Video ☐ Other:
7. Credit Hours: ☒ 3-0-3 ☐ 2-3-3 ☐ 3-3-4 ☐ Other: **Laboratory** (if applicable): ☐ unscheduled ☐ scheduled *For courses with substantial laboratory or project work, a 2-3-3 or 3-3-4 credit distribution may be appropriate. Institute policy requires all lecture courses (3-0-3, most 2-3-3 or 3-3-4) to have a final exam, given during the scheduled final exam period. For courses with major projects, an alternate final exam format (e.g., oral project presentations) may be approved.*	

8. Course taught previously? ☒ No ☐ Yes, list terms and enrollments:
9. (GRADUATE only) **MS/PhD course domain(s):**   ☐ Bio ☐ CSS ☒ DSP ☐ EDA ☐ Emag ☐ Energy ☐ Micro ☐ Optics ☐ Sys&Ctrl ☐ Telecom ☐ VSDD   *Approval must be obtained from ALL TIGs responsible for the specified course domain(s) before submission to ECEGC.*
10. Prerequisites: ☒ check here if there are NO prerequisites for this course   *Use an asterisk to indicate that concurrency is allowed and "[C]" to indicate that a minimum grade of C is required. For example, the prerequisites for ECE 4007 would be listed as follows:* **ECE 3042[C] and ECE 4001***   *ECE 4xxx courses are considered advanced topics in EE/CmpE and, therefore, generally must have another ECE course as prerequisite. Prerequisites for undergraduate courses are enforced and may not be waived by the instructor, although ECE graduate students will be granted prerequisite overrides. Prerequisites are not enforced for graduate courses.*
11. Textbooks: ☒ check here if NO textbooks are to be ordered for this course   *For each text to be ordered, specify either "required" or "optional" and provide the other requested information.*   *To specify more than three texts, include the information for the additional texts on the syllabus and check here:* ☐   Reqd/Opt ISBN Number Author, Title, Publisher, Year   a) Required   b) Required   c) Required
12. Special Considerations (*e.g., major/level restrictions, cross-listing with another department, non-traditional scheduling*)**:**   This will be a required course in the Machine Learning PhD program. The course will be cross listed with CoC (CS and CSE) and ISyE. If and when it is offered permanently, we hope to have the course number 7741.

This form must be submitted each time a course is proposed for offering as a special topic in ECE. To also request **permanent catalog listing**, the *ECE New Course Request* form must be completed and submitted along with this form.

In addition to this completed form, the following information is required (unless also included in a permanent listing request):
- Course syllabus, including a **1-page** topical outline and a description of how students will be evaluated or graded.
- Summary of grades assigned and CIOS student evaluations for all previous offerings of the course.

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After TIG approval, (1) all materials must be submitted to the chair of the ECE Undergraduate or Graduate Committee, as appropriate, and (2) this completed form and the course syllabus must be submitted **electronically** to Mary Ann Weitnauer.