Course Change Request

Date Submitted: 02/14/24 9:34 pm

Viewing: CSI 772 : Data-Driven Modeling and Learning ~~Statistical Learning~~

Last approved: 11/19/20 4:56 am

Last edit: 02/14/24 9:34 pm

Changes proposed by: blaisten

Catalog Pages referencing this course

Computational Sciences and Informatics (CSI)

Department of Computational and Data Sciences

Select modification type:

Substantial

In Workflow

1. **CDS Chair**
2. **SC Curriculum Committee**
3. SC Assistant Dean
4. Assoc Provost-Graduate
5. Registrar-Courses
6. Banner

Approval Path

1. 02/15/24 10:41 am Jason Kinser (jkinser): Approved for CDS Chair

History

1. Nov 19, 2020 by jriemen

Are you completing this form on someone else's behalf?

No

Effective Term: Fall 2024

Subject Code: CSI - Computational Science & Informatics **Course Number:** 772

Bundled Courses:

Is this course replacing another course? No

Equivalent Courses:

Catalog Title: Data-Driven Modeling and Learning ~~Statistical Learning~~

Banner Title: Data-Driven ~~Statistical~~ Learning

Will section titles vary by semester? No

Credits: 3

Schedule Type: Lecture

Hours of Lecture or Seminar per week: 3

Repeatable: May only be taken once for credit (NR)
GRADUATE ONLY

Default Grade Mode: Graduate Regular

Recommended Prerequisite(s):
CSI 690

Recommended Corequisite(s):

Required Prerequisite(s) / Corequisite(s) (Updates only):
CSI 672 or STAT 652 or permission from the instructor

Registrar's Office Use Only - Required Prerequisite(s)/Corequisite(s):

And/Or	(	Course/Test Code	Min Grade/Score	Academic Level	)	Concurrency?
		STAT 652	B-	GR		
Or		STAT 652	XS	GR		
Or		CSI 672	B-	GR		
Or		CSI 672	XS	GR		

Registration Restrictions (Updates only):

Registrar's Office Use Only - Registration Restrictions:

Field(s) of Study:

Class(es):

Level(s):

Include

Enrollment limited to students with a level of Non-Degree (SCRRLVL_ONLY_ND)

Limited to graduate level students only. (SCRRLVL_ONLY_GR)

Degree(s):

Exclude

Non-Degree Undergraduate Degree students may not enroll. (SCRRDEG_NO_NDU)

School(s):

Catalog Description:

Focuses on advances in data science related to statistical learning theory by introducing modern topics on data analytics, classification, clustering, ~~the statistical~~ and regression techniques, as well as data-driven decision-making. ~~optimization background essential for developing new efficient statistical learning algorithms.~~ The course includes the statistical and optimization background essential for developing new efficient statistical learning, data-driven methods and algorithms. Also discusses applications of data-driven statistical learning algorithms to the solution of important real-world problems that arise in ~~many~~ areas of science and other domains. ~~science.~~

Justification:

What: The title and catalog description have been revised. The order in which the required pre-requisites appear is modified.

Why: Given the recent advances in the areas of data analytics and statistical learning for artificial intelligence development, the course modifications include modern topics in data-driven decision-making and statistical learning, as well as recent real-world applications.

Does this course cover material which crosses into another department? No

Learning Outcomes:

By the end of the course, students will

• have a fundamental knowledge of data analyses with machine and statistical learning

• have an understanding of how analytics have been and are currently used in the science and corporate world

• learn data-driven thinking, problem-solving, and decision-making

Will this course be scheduled as a cross-level cross listed section? No

Attach Syllabus

CSI 772-Syllabus-1-3.pdf

Additional Attachments

Specialized Course Categories:

Additional Comments:

1) The catalog entries for the Computational Science, MS and PhD in Computational Sciences and Informatics the should be added as programs of study affected by this modification.

2) The above mentioned "Other Courses referencing this course As an Equivalent: STAT 772 Statistical Learning" should be removed since STAT 772 has been deactivated.

Reviewer Comments

Key: 3359