Course Change Request

Date Submitted: 11/15/24 11:37 am

Viewing: CSI 772 : Data-Driven Modeling and Learning

Last approved: 04/03/24 6:50 am

Last edit: 11/15/24 11:37 am

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. 11/18/24 10:07 am Arie Croitoru (acroitor): Approved for CDS Chair

History

1. Nov 19, 2020 by jriemen
2. Apr 3, 2024 by Estela Blaisten-Barojas (blaisten)

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

No

Effective Term: Summer 2025

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

Banner Title: Data-Driven 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, CSI 672 or STAT 652 or permission from the instructor ~~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):

Include

Limited to students with a class of Advanced to Candidacy. (SCRRCLS_ONLY_DC)

Limited to students with a class of Graduate. (SCRRCLS_ONLY_GR)

Limited to students with a class of Non Degree (SCRRCLS_ONLY_ND)

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, and regression techniques, as well as data-driven decision-making. 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 areas of science and other domains.

Justification:

What: Change the required prerequisites to be recommended prerequisites

Why: Practice has shown that with required prerequisites between 90-95% of graduate students were allowed to register in the course, hence entailing a time
investment from both, instructor and administrative coordinator, that has been assessed as unnecessary from the department.

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