

**UNDERGRADUATE COUNCIL  
Request for Change(s)**

Originating unit requesting change:

Type of Change requested:

- |                          |                    |                          |                        |                          |                       |
|--------------------------|--------------------|--------------------------|------------------------|--------------------------|-----------------------|
| <input type="checkbox"/> | Course number(s)   | <input type="checkbox"/> | Course prerequisite(s) | <input type="checkbox"/> | Program description*  |
| <input type="checkbox"/> | Course title       | <input type="checkbox"/> | Drop course(s)         | <input type="checkbox"/> | Program requirements* |
| <input type="checkbox"/> | Course description | <input type="checkbox"/> | Drop program(s)        |                          |                       |

Semester and year change(s) take effect:

Appropriate computer abbreviation  
if course title is more than 30 spaces:

In space provided, briefly summarize change requested:

**Programs Only\***

Program Name: \_\_\_\_\_

Current Code: \_\_\_\_\_ Proposed New Code (list 2): \_\_\_\_\_ or \_\_\_\_\_  
(ex: INDE-BFA)

Can have second major: \_\_\_\_ Yes \_\_\_\_ No

Current 6-digit CIP Code: \_\_\_\_\_  
Does the change require a new or change in CIP code? \_\_\_\_ Yes \_\_\_\_ No

If yes, what is the proposed 6-digit CIP code?\* \_\_\_\_\_

\*for reference, please visit: <https://nces.ed.gov/ipeds/cipcode/resources.aspx?y=56>

Program to be promoted to prospective  
undergraduate students by TCU Admissions?                      Yes                      No

Catalog Copy: *if additional space or formatting is needed, include as an attachment*

Present catalog copy (paste-up from catalog is acceptable):

Proposed change(s): Include exact catalog copy as desired. Strike-through deletions and underline changes in Adobe Acrobat by using Ctrl+E (PC) or Cmd+E (Mac).

1. What is the justification for the change(s) requested?
2. If applicable, explain how the change(s) will affect the current program outcomes and assessment mechanisms.
3. **Faculty Resources:** How will the unit provide faculty support for this change and any other impact this change may have on other current departmental listings.

4. **Educational Resources:** Will this change require additional resources not currently available (e.g. space, equipment, library, other)?  YES  
If yes, list additional resources needed.  NO

5. If this change affects other units of the University, include a statement signed by the chairperson(s) of the affected unit(s).

6. If cross-listed, provide evidence of approval by all curriculum committees appropriate to both the originating and cross-listed units.

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Approval signature of chairperson of originating unit

Old catalog copy:

Any two of the following:

<a href="#">COSC 20203</a>	Techniques in Programming	3
<a href="#">ECON 31223</a>	Intermediate Microeconomics: A Mathematical Approach	3
<a href="#">ECON 40313</a>	Econometrics	3
<a href="#">PHYS 20474</a>	Physics I with Laboratory: Mechanics	4
	OR	
<a href="#">PHYS 20475</a>	Physics I for Majors: Mechanics	5
<a href="#">PHYS 20484</a>	Physics II with Laboratory: Electromagnetism and Optics	4
	OR	
<a href="#">PHYS 20485</a>	Physics II for Majors	5

New catalog copy:

Any two of the following:

<a href="#">COSC 20203</a>	Techniques in Programming	3
<a href="#">COSC 40403</a>	Analysis of Algorithms	3
<a href="#">COSC 40523</a>	Deep Learning	3
<a href="#">ECON 31223</a>	Intermediate Microeconomics: A Mathematical Approach	3
<a href="#">ECON 40313</a>	Econometrics	3
<a href="#">ECON 40323</a>	Time Series Econometrics	3
<a href="#">PHYS 20474</a>	Physics I with Laboratory: Mechanics	4
	OR	
<a href="#">PHYS 20475</a>	Physics I for Majors: Mechanics	5
<a href="#">PHYS 20484</a>	Physics II with Laboratory: Electromagnetism and Optics	4
	OR	
<a href="#">PHYS 20485</a>	Physics II for Majors	5



**December, 20<sup>th</sup> 2023**

**Re: Associated requirements for all Math and Actuarial Science Programs**

This note confirms that the proposed change to the Associated requirements for Math and Actual Science Programs at TCU involving the addition of ECON 40323 Time Series Econometrics is approved by the department of economics.

Dawn Elliott

Chair, Department of Economics

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(817) 257 623.

## Friedman, Greg

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**From:** Scherger, Michael  
**Sent:** Wednesday, December 20, 2023 11:52 AM  
**To:** Friedman, Greg  
**Subject:** Re: Associated requirements

Hi Greg,

[The Department of Computer Science approves the changes to associated requirements for Math and Actuarial Science majors.](#)

I just want to mention a few things...

Currently, COSC 40403 – Analysis of Algorithms and COSC 40523 – Deep Learning are offered once per year in fall semesters. We do not schedule them on top of each other. Students could take both in the same semester but that rarely happens (reference our COSC 4 year plan).

I agree, that this change in MATH may not affect the class sizes too much.

I agree that this change to your associated requirements would mostly be used by those students who are double majoring in MATH/COSC or minoring in COSC.

The prereqs for Algorithms are Data Structures and Discrete II (coreq). To get there, the minimum set of COSC/MATH courses students would take is:

- COSC 10403 – Intro to Programming
- COSC 20203 – Techniques in Programming
- COSC 20803 – Data Structures
- MATH 20123 – Discrete Math I
- MATH 30123 – Discrete Math II (can be a coreq)

The prereq for Deep Learning are Intro to Data Science, Linear Algebra, and (Elementary Stats or Stats). To get there, minimum set of COSC/MATH students would take:

- COSC 10403 – Intro to Programming
- COSC 20203 – Techniques in Programming
- COSC 20803 – Data Structures
- COSC 30103 – Intro to Data Science (Cross listed as MATH 30103)
- MATH 20123 – Discrete Math I
- MATH 30224 – Linear Algebra
- MATH 10043 – Elementary Statistics OR MATH 30853 - Statistics

Mike Scherger

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**Michael Scherger, Ph.D.** – Department Chair and Associate Professor

Department of Computer Science

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