



Impact of the new curriculum

INFORMATION FOR THIRD YEAR STUDENTS & OLDER, 8TH OF OCTOBER 2024

Academic Advisors

Department of Mechanical Engineering

New curriculum from 2023-24

- First year students who started the bachelor in September 2023 have a new curriculum
- Courses and content of their program stay the same for the largest part
- Most important changes of the new program:
 - Some basic courses will disappear or change in content
 - Introduction of a few new courses
 - Some current courses change in year, quartile or timeslot
 - USE learning lines disappear

What does this mean for me?

In principle you can continue the program you started.

However; the new curriculum might affect your planning since the old program is being phased out!

*This very likely if you experienced study delay,
but it can affect you as well if you're a nominal student.*

What does this mean for me?

How big the impact of the new curriculum on your current curriculum is, depends on:

- Do you still need to **complete first-year or second year courses**?
- Did you still need to complete your **USE learning trajectory**?
- Do you still need to complete your **elective program**?

Let's take a look at the changes in curriculum.

Topics during this session;

Comparison old & new curriculum

New curriculum 2024-25: year 3

- Overview new courses
- Overview courses in different quartiles/year/timeslots
- What to do if you haven't passed a third year course?

Elective space & new curriculum

- USE learning trajectory
- Electives

New curriculum: year 1

2023-2024			
1.1	1.2	1.3	1.4
2WBB0 (1) Calculus (A) <i>Peletier</i>	4CA10 (1) Principles of design and programming (C) <i>Remmers, Vrancken</i>	4MA00 (1) Structure and properties of materials (C) <i>van Dommelen, Govaert</i>	4CA20 (2) Signals and Systems (D) <i>Chong</i>
4RA00 (1) Mechanics (B) <i>Zakhari, van Breemen</i>	4DA00 (1) Dynamics (A) <i>Fey, Habets</i>	4RA10 (1) Introduction Transport Phen. (D) <i>Dam, Anthonissen</i>	0LVX10 (1) ITEC Ethics (E) <i>Spahn</i>
4CBLA00 (1) Intro mech. Engineering & CBL truss structure (C+E) <i>Anderson, Lutttge</i>	4CBLA10 (1) CBL Design of a Launching mechanism (B+E) <i>de Lange</i>	4CBLA20 (1) CBL Multiped Robot (A+B) <i>Wang</i>	4CBLA30 (1) CBL Energy storage and transport (A+B) <i>Verhoosel</i>

New curriculum: year 1

2023-2024			
1.1	1.2	1.3	1.4
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4RA00 (1) Mechanics (B) <i>Zakhari, van Breemen</i>	4DA00 (1) Dynamics (A) <i>Fey, Habets</i>	4RA10 (1) Introduction Transport Phen. (D) <i>Dam, Anthonissen</i>	0LVX10 (1) ITEC Ethics (E) <i>Spahn</i>
4CBLA00 (1) Intro mech. Engineering & CBL truss structure (C+E) <i>Anderson, Luttgé</i>	4CBLA10 (1) CBL Design of a Launching mechanism (B+E) <i>de Lange</i>	4CBLA20 (1) CBL Multipled Robot (A+B) <i>Wang</i>	4CBLA30 (1) CBL Energy storage and transport (A+B) <i>Verhoosel</i>

Two new courses:

- 4CA10 Principles of design and programming
- 0LVX10 ITEC Ethics

Can I take the new courses in year 1 as electives?

No, this is not allowed.

- 4CA10 *Principles of design and programming* has too much overlap with 4CC40 *Design Principles & Analysis of Production Systems* in year 3
- 0LVX10 *ITEC Ethics* has too much overlap with 0SIAB0 *USE Base*

New curriculum: year 1

2023-2024			
1.1	1.2	1.3	1.4
2WBB0 (1) Calculus (A) <i>Peletier</i>	4CA10 (1) Principles of design and programming (C) <i>Remmers, Vrancken</i>	4MA00 (1) Structure and properties of materials (C) <i>van Dommelen, Govaert</i>	4CA20 (2) Signals and Systems (D) <i>Chong</i>
4RA00 (1) Mechanics (B) <i>Zakhari, van Breemen</i>	4DA00 (1) Dynamics (A) <i>Fey, Habets</i>	4RA10 (1) Introduction Transport Phen. (D) <i>Dam, Anthonissen</i>	0LVX10 (1) ITEC Ethics (E) <i>Spahn</i>
4CBLA00 (1) Intro mech. Engineering & CBL truss structure (C+E) <i>Anderson, Lutttge</i>	4CBLA10 (1) CBL Design of a Launching mechanism (B+E) <i>de Lange</i>	4CBLA20 (1) CBL Multipled Robot (A+B) <i>Wang</i>	4CBLA30 (1) CBL Energy storage and transport (A+B) <i>Verhoosel</i>

Existing courses that have moved quartile/year:

- 4MA00 *Structure and properties of materials* from Q4 → Q3
- 4CA20 *Systems & Signals* from year 2, Q1 → **year 1, Q4**
- 4CBLA30 *Energy storage and transport* from year 1, Q1 → **year 1, Q4**
- Elective course 4GA50 *CBL Solar Heat* from year 1, Q4 → **year 2, Q1**

What about first year courses that I haven't passed?

- All transition arrangement can also be found on the Education Guide > Curriculum 2022/2023 and before
- **3NBB0 Applied Natural Sciences:** student have received a possible transition arrangement from the Examination Committee
- **2IAB0 Data Analytics** can be replaced by **4CA10**
- If you haven't passed **OSAB0 USE Base** then you can follow **0LVX10 ITEQ Ethics** as a replacement course. *Please note this course is taught in the same quartile but in a different timeslot.*

What about first year courses that I haven't passed?

- 9 out of 12 first year courses remain in the new program, but some change in quartile (i.e. 4MA00) or timeslot (i.e. 4DA00).

You can simply retake the whole course again.

New curriculum 2024-25: year 2

2.1	2.2	2.3	2.4
4EB00 (2) Thermodynamics (C) <i>Smeulders</i>	4DB00 (2) Dynamics & control of mechanical systems (E) <i>James</i>	4MB00 (2) Solid Mechanics (C) <i>Geers, Kouznetsova</i>	4PB00 (2) Heat and flow (E) <i>Kuerten, Rindt</i>
2DW10 (2) Statistics & Probability (D) <i>Mandal</i>	4CBLB10 (2) CBL Sustainable Fuels: Plan A or B) (C+D) <i>Bomers</i>	4CBLB20 (2) CBL Control of a flexible robot system (C+E) <i>Hattum, Kunnen</i>	4CBLW00 (2) Multidisciplinary CBL (C+D) <i>van Esch</i>
free elective 4CBLB00 (2) Solar Heat (A+B)	free elective 4MB10 (2) Material Models (A)	free elective 4CB40 (3) Control of Manufacturing Systems (B)	free elective

Two new courses:

- **2DW10** Statistics & Probability
- **4CBLW00** Multidisciplinary CBL

Can I take the new courses in year 2 as electives?

2DW10 yes, 4CBLW00 no.

4CBLW00 *Multidisciplinary CBL* has too much overlap with 4WBB0 *Engineering Design*. (you can only take this course if it acts as a replacement course for 4WBB0)

What about second year courses that I haven't passed last year?

- 7 out of 8 major year 2 courses remain in the new program, but some change in quartile (ie. 4EB00), timeslot (ie. 4PB00) or change name/course code (**4GB10** *Combustion Engine* becomes **4CBLB10** *Sustainable Fuels: Plan A or B?*)

You can simply retake the whole course again.

What about second year courses that I haven't passed last year?

- In case you haven't passed/followed **4WBB0** *Engineering Design* then you can follow **4CBLW00** *Multidisciplinary CBL* as a replacement course.

Please note this course is taught in a different quartile (Q4)!

Comparison old & new curriculum

Check out this overview on the education guide under [“Curriculum start year 2022/2023 and before”](#)

Curriculum Bachelor ME Gen. 2022-2023

Changes from 2023-24		1.2		1.3		1.4	
1.1 2WBB0 (1) Calculus (A) <i>Peletier</i>	3NBB0 (1) Applied Natural sciences (A) <i>Duif</i> Course is no longer taught Two re-sit opportunities given in 2023-24	2IAB0 (1) Data analytics for engineers (A) <i>Sidorova</i> Course is no longer taught Two re-sit opportunities given in 2023-24	0SAB0 (1) USE Base (A) <i>Spahn</i> Course is no longer taught but students can take 0LVX10 (Q4) as a replacement course				
4RA00 (1) Mechanics (B) <i>Huislen, van Breemen</i>	4DA00 (1) Dynamics (B) <i>Fey, Habets</i> Changes to timeslot A	4RA10 (1) Introduction Transport Phen. (D) <i>Dam, Anthonissen</i>	4MA00 (1) Structure and properties of mat.(B) <i>van Dommelen, Govaert</i> Moves to Q3, timeslot C				
4GA00 (1) Intro mech. Engineering & DBL truss structure (C+E) <i>Anderson, Luitge</i> Course code changes to 4CBLA00	free elective 4GA10 (1) DBL Design of a Launching mechanism (D+E) Course code changes to 4CBLA10 and timeslot changes to B+E	4GA40 (1) CBL Multipled Robot (B+E) <i>Wang</i> Course moves to timeslot A+B and course code changes to 4CBLA20	free elective 4GA50 (1) DBL Solar Heat System (D+E) Course not taught in 2024-25. Moves to Q1, 2024-25 & course code changes to 4CBLB00				
Changes from 2024-25							
2.1 4WBB0 (2) Engineering Design (C) <i>van Esch</i> Course is no longer taught but students can take 4CBLW00 (in Q4) as a replacement course	2.2 4DB00 (2) Dyn & cont of mech systems (E) <i>Murguia Rendon</i>	2.3 4MB00 (2) Solid Mechanics (D) <i>Geers, Kouznetsova</i>	2.4 4PB00 (2) Heat and flow (C) <i>Kuersten, Rindt</i> Moves to timeslot E				
4CB00 (2) Signals and Systems (D) <i>Chong</i> Moves to Q4, timeslot D; course code changes to 4CA20	4EB00 (2) Thermodynamics (C) <i>Smeulders</i> Moves to Q1, timeslot C	4GB10 (2) CBL Sustainable Fuels: Plan A or B? (C+E) <i>Somers</i> Moves to Q2, timeslot C+D, course code changes to 4CBLB10	4GB20 (2) CBL Robotarm (D+E) <i>van de Molengraaf</i> Moves to Q3, timeslot C+E, course code changes to 4CBLB20				
free elective/USE 4GB00 (2) CBL Modeling of time dependent systems (A+B) Moves to Q4, timeslot A+B and course code changes to 4CBLA30	free elective/USE	free elective/USE	free elective/USE 4LB00 (3) FSS1: Strength & Structure (A) Course not taught in 2024-25 Moves to Q3 in 2025-26, timeslot A				
Changes from 2025-26 (these are more likely to change as it's further into the future!)							
3.1 4MC10 (3) Computational mechanics (C) <i>Peerlings, van Brummelen</i> Moves to timeslot E	3.2 4CC40 (3) Design principles & Analysis of production systems (C) <i>Vrancken, Reniers</i> Course is no longer taught but students have two re-sit opportunities in 2025-26	3.3 free elective/USE 4CC10 (3) HTSD 2: Mechatronic Design (C) 3FTX0 (3) DES 2: Turbulence, waves & instabilities (A) 4CC10 moves to Q3, timeslot C 3FTX0 changes are not known	3.4 free elective/USE 4DC00 (3) HTSD 3: Dynamics and control of Robotic systems (A) 4BC00 (3) DES3: Chemically reacting flows (D) 4DC10 moves to Q3, timeslot D 4BC00 moves to Q1, timeslot A				
4GC00 (3) CBL Comp. Aided Eng (B+D) <i>Rokos</i> Moves to Q2, timeslot A+B and course code changes to 4CBLC20	4GC10 (3) CBL Mech. Design Project (B+D) <i>Eltman</i> Moves to Q4, timeslot D+E and course code changes to 4CBLC30	free elective/USE 4MC00 (3) FSS: 2: Experimental & Numerical skills (E) 4EC10 (3) DES: 2 Dynamics of energy systems (A) 4MC00 is no longer taught 4EC10 moves to Q2, timeslot A	free elective/USE 4RC00 (3) FSS 3: Flow and structure (E)				
free elective/USE 4TC00 (2) HTSD 1: Model-based systems engineering (E) Course is no longer taught but students can take 4CB40 (Q3) as a replacement course	free elective/USE 4PC00 (3) DES 1: Thermal and fluid engineering (E) Moves to Q3, timeslot E	4WC00 (3) Bachelor's Final project	4WC00 (3) Bachelor's Final Project				

Version 25-01-2024 Subject to changes! The PER (OER) is always leading.

Comparison old & new curriculum

Changes from 2025-26 (these are more likely to change as it's further into the future!)				
Curriculum	3.1	3.2	3.3	3.4
	4MC10 (3) Computational mechanics (C) <i>Peerlings, van Brummelen</i>	4CC40 (3) Design principles & Analysis of production systems (C) <i>Vrancken, Reniers</i>	free elective/USE 4CC10 (3) HTSD 2: Mechatronic Design (C) 3FTX0 (3) DES 2: Turbulence, waves & instabilities (A)	free elective/USE 4DC00 (3) HTSD 3: Dynamics and control of Robotic systems (A) 4BC00 (3) DES3: Chemically reacting flows (D)
	Moves to timeslot E	Course is no longer taught but students have two resit opportunities in 2025-26	4CC10 moves to Q3, timeslot C 3FTX0 changes are not known	4DC10 moves to Q3, timeslot D 4BC00 moves to Q1, timeslot A
	4GC00 (3) CBL Comp. Aided Eng (B+D) <i>Rokos</i>	4GC10 (3) CBL Mech. Design Project (B+D) <i>Etman</i>	free elective/USE 4MC00 (3) FSS: 2: Experimental & Numerical skills (E) 4EC10 (3) DES: 2 Dynamics of energy systems (A)	free elective/USE 4RC00 (3) FSS 3: Flow and structure (E)
	Moves to Q3, timeslot A+B and course code changes to 4CBLC20	Moves to Q4, timeslot D+E and course code changes to 4CBLC30	4MC00 is no longer taught 4EC10 moves to Q2, timeslot A	
	free elective/USE 4TC00 (2) HTSD 1: Model-based systems engineering (E)	free elective/USE 4PC00 (3) DES 1: Thermal and fluid engineering (E)	4WC00 (3) Bachelor's Final project	4WC00 (3) Bachelor's Final Project
	Course is no longer taught but students can take 4CB40 (Q3) as a replacement course	Moves to Q3, timeslot E		

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4CC40 will be taught for the last time this year

4TC00 will be replaced next year by 4BC40

4MC00 no longer taught

Comparison old & new curriculum

Changes from 2025-26 (these are more likely to change as it's further into the future!)				
Curriculum	3.1	3.2	3.3	3.4
	4MC10 (3) Computational mechanics (C) <i>Peerlings, van Brummelen</i>	4CC40 (3) Design principles & Analysis of production systems (C) <i>Vrancken, Reniers</i>	free elective/USE 4CC10 (3) HTSD 2: Mechatronic Design (C) 3FTX0 (3) DES 2: Turbulence, waves & instabilities (A)	free elective/USE 4DC00 (3) HTSD 3: Dynamics and control of Robotic systems (A) 4BC00 (3) DES3: Chemically reacting flows (D)
	Moves to timeslot E	Course is no longer taught but students have two re-sit opportunities in 2025-26	4CC10 moves to Q3, timeslot C 3FTX0 changes are not known	4DC10 moves to Q3, timeslot D 4BC00 moves to Q1, timeslot A
	4GC00 (3) CBL Comp. Aided Eng (B+D) <i>Rokos</i>	4GC10 (3) CBL Mech. Design Project (B+D) <i>Etman</i>	free elective/USE 4MC00 (3) FSS: 2: Experimental & Numerical skills (E) 4EC10 (3) DES: 2 Dynamics of energy systems (A)	free elective/USE 4RC00 (3) FSS 3: Flow and structure (E)
Moves to Q2, timeslot A+B and course code changes to 4CBLC20	Moves to Q4, timeslot D+E and course code changes to 4CBLC30	4MC00 is no longer taught 4EC10 moves to Q2, timeslot A		
free elective/USE 4TC00 (2) HTSD 1: Model-based systems engineering (E)	free elective/USE 4PC00 (3) DES 1: Thermal and fluid engineering (E)	4WC00 (3) Bachelor's Final project	4WC00 (3) Bachelor's Final Project	
Course is no longer taught but students can take 4CB40 (Q3) as a replacement course	Moves to Q3, timeslot E			

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Many courses move timeslot, or Quartile. Check carefully!

4CC40

This year, **4CC40** will be thought for the last time. This course is a combination of the old 2,5 ETCS courses **4CC30** and **4DC10**.

- In case you have not passed any of these courses, you need to do the whole 4CC40 course.
- If you have passed 4CC30 or 4DC10, you still need to do the whole 4CC40 course.

Make sure to enrol for **4CC40**!

Impact for elective space

Your current program has the following [requirements for your elective space](#):

- Courses are of **sufficient level** (at least 15 ECTS of level 3 courses, and 15 ECTS of level 2 or 3 courses)
- Courses **do not overlap** with courses in ME program
- You need to complete a **USE learning trajectory**

Impact for elective space: USE learning trajectory

- USE learning lines are not part of the new curriculum
- That means that USE packages are being phased out
- Check on [the education guide](#) until when USE packages are being taught

Do not delay following a USE package and if you are, check to see which USE packages are still being taught in the future!

Impact for elective space: electives at ME

- The electives that ME offers will also change as the new curriculum is phased in
- Some electives will change in name, quartile, timeslot or even disappear from the program
- There are also new electives to be chosen in the future

Impact for elective space: electives at ME

Check on the education guide until when which current ME elective package is still being offered:

- [Designing, Experimenting and Modeling](#)
- [High Tech Systems Design](#)
- [Design of Energy Systems](#)
- [Flow, Structure & Strength](#)

Impact for elective space: electives outside of ME

- The electives that other departments offer will also change, but we (ME) are not aware of everything other departments are changing
- Check the [Osiris catalogue](#) and [the education guide](#) to see if your desired electives are still being taught next year (and after)
- When in doubt; contact the responsible lecturer!

To conclude;

- The new curriculum will have an impact on your planning if you're delayed, expect a delay in the future or if you're planning your elective space in the future (including USE)
- Inform yourself well via the information on [the education guide](#); the PlanApp cannot be used for planning further into the future with some courses

To conclude;

- More information? You can find the current and new curriculum on the [education guide](#).
- If you have questions after reviewing this presentation, feel free to contact the Academic Advisors via me.academic.advisors.bsc@tue.nl.