



Impact of the new curriculum

INFORMATION FOR SECOND YEAR STUDENTS & OLDER, 7 MARCH 2024

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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 in Q1/Q2?**
- 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 year 1 & 2.

Topics during this session;

New curriculum 2023-24: year 1

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

New curriculum 2024-25: year 2

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

Topics during this session;

Comparison old & new curriculum

Elective space & new curriculum

- USE learning trajectory
- Electives

New curriculum 2023-24: year 1

2023-2024			
1.1 2WBB0 (1) Calculus (A) <i>Peletier</i>	1.2 4CA10 (1) Principles of design and programming (C) <i>Remmers, Vrancken</i>	1.3 4MA00 (1) Structure and properties of materials (C) <i>van Dommelen, Govaert</i>	1.4 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, Luttge</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 2023-24: year 1

2023-2024			
1.1 2WBB0 (1) Calculus (A) <i>Peletier</i>	1.2 4CA10 (1) Principles of design and programming (C) <i>Remmers, Vrancken</i>	1.3 4MA00 (1) Structure and properties of materials (C) <i>van Dommelen, Govaert</i>	1.4 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, Luttge</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>

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 2023-24: year 1

2023-2024			
1.1 2WBB0 (1) Calculus (A) <i>Peletier</i>	1.2 4CA10 (1) Principles of design and programming (C) <i>Remmers, Vrancken</i>	1.3 4MA00 (1) Structure and properties of materials (C) <i>van Dommelen, Govaert</i>	1.4 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, Luttge</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** (so it cannot be followed in **2023-24 but again in 2024-25**)

New curriculum 2023-24: 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, Luttge</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>

Please note:

You cannot follow 4CA20 (Signals & Systems) or 4CBLA30 (Energy Storage) as a non-first year student this year! It's only open for first year students.

New curriculum 2023-24: year 1

2023-2024			
1.1 2WBB0 (1) Calculus (A) <i>Peletier</i>	1.2 4CA10 (1) Principles of design and programming (C) <i>Remmers, Vrancken</i>	1.3 4MA00 (1) Structure and properties of materials (C) <i>van Dommelen, Govaert</i>	1.4 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, Luttge</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>

Please note:

Do you still need to pass Signals & Systems or Energy Storage? Then you can take these courses again next academic year in Q4.

New curriculum 2023-24: 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, Luttge</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>

Changes in timeslots:

- 4DA00 *Dynamics* moves to A
- 4CBLA10 *Design of a Launching mechanism* moves to B + E
- 4CBLA20 *Multiped Robot* moves to A + B

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

- 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 re-sit the whole course again.

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

- In case you haven't passed **3NBB0** *Applied Natural Sciences* or **2IAB0** *Data Analytics* then you can make use of two exam opportunities this year.
- If you haven't passed **0SAB0** *USE Base* then you can follow 0LVX10 *ITEQ Ethics* as a replacement course next year. *Please note this course is taught in the same quartile but in a different timeslot.*

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)

The second year courses in 2024-25

2.1 4EB00 (2) Thermodynamics (C) <i>Smeulders</i>	2.2 4DB00 (2) Dynamics & control of mechanical systems (E) <i>James</i>	2.3 4MB00 (2) Solid Mechanics (C) <i>Geers, Kouznetsova</i>	2.4 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>Somers</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

Changes in quartile:

4EB00 *Thermodynamics* from Q2 → Q1

4CBLB10 *CBL Sustainable Fuels* (formerly 4GB10) Q3 → Q2

4CBLB20 *CBL Control of a flexible robot sys.* (formerly 4GB20) Q4 → Q3

The second year courses in 2024-25

2.1 4EB00 (2) Thermodynamics (C) <i>Smeulders</i>	2.2 4DB00 (2) Dynamics & control of mechanical systems (E) <i>James</i>	2.3 4MB00 (2) Solid Mechanics (C) <i>Geers, Kouznetsova</i>	2.4 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>Somers</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

4EB00 Thermodynamics from Q2 → Q1

Be warned: means that this course overlaps with **4MC10 Computational Mechanics** in Q1 (timeslot C) in 2024-25.

The second year courses in 2024-25

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>Somers</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

4CBLB10 Sustainable Fuels (formerly 4GB10) from Q3 → Q2

Be warned: means that this course overlaps with **4CC40 Design Principles & Analysis of prod. Sys** (timeslot C) & **4GC10 DBL Mech. Design Project** (timeslots C+D) in 2024-25.

The second year courses in 2024-25

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>Somers</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

4CBLB20 *CBL Control of a flexible robot sys.* (formerly 4GB20) Q4 → Q3

The second year courses in 2024-25

2.1 4EB00 (2) Thermodynamics (C) <i>Smeulders</i>	2.2 4DB00 (2) Dynamics & control of mechanical systems (E) <i>James</i>	2.3 4MB00 (2) Solid Mechanics (C) <i>Geers, Kouznetsova</i>	2.4 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>Somers</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

Changes in timeslot:

4PB00 *Heat and Flow* moves to timeslot E (formerly C)

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

- 7 out of 8 major year 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 re-sit the whole course again.

What about second year courses that I haven't passed this 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		1.3	
1.1	2WB00 (1) Calculus (A) <i>Peletier</i>	1.2	3NB00 (1) Applied Natural sciences (A) <i>Dulf</i> Course is no longer taught Two re-sit opportunities given in 2023-24
4RA00 (1) Mechanics (B) <i>Huisen, van Breemen</i>	4DA00 (1) Dynamics (B) <i>Fey, Habets</i> Changes to timeslot A	2IA00 (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 0LVX19 (Q4) as a replacement course
4GA00 (1) Intro mech. Engineering & DBL truss structure (C+E) <i>Anderson, Luttge</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	4WB00 (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>
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	2.3	4MB00 (2) Solid Mechanics (D) <i>Geers, Kouznetsova</i>
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	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	4PB00 (2) Heat and flow (C) <i>Kuerten, Rindt</i> Moves to timeslot E
4GB20 (2) CBL Robotarm (D+E) <i>van de Molengraft</i>	4GB20 (2) CBL Robotarm (D+E) <i>van de Molengraft</i>	4GB20 (2) CBL Robotarm (D+E) <i>van de Molengraft</i>	4GB20 (2) CBL Robotarm (D+E) <i>van de Molengraft</i>
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
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>Etman</i> Moves to Q4, timeslot D+E and course code changes to 4CBLC30	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
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	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 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
4WC00 (3) Bachelor's Final Project	4WC00 (3) Bachelor's Final Project	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.



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 not 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.