

Vakgroepvoorlichting 2009

Mastertrack PT

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Master Chemical Engineering

Three tracks:

- Molecules & Materials (M&M)
- Process Technology (PT)
- Water Technology (WT)

location: Leeuwarden at Wetsus

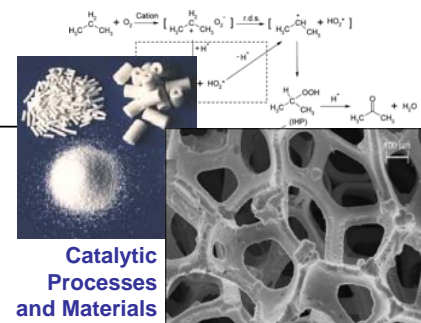
Admission Requirements

- P-diploma and
- Min. 150 ECTS Bachelor courses finished

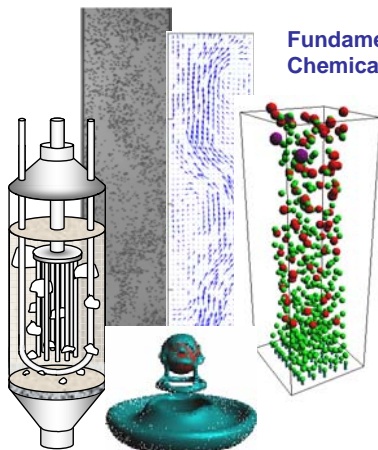
What is Process Technology?



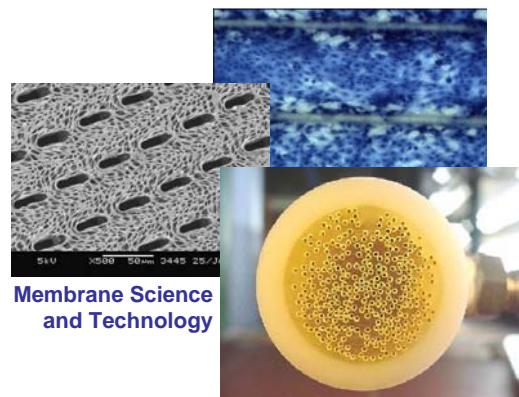
**Thermo-Chemical
Conversion of Biomass**



**Catalytic
Processes
and Materials**

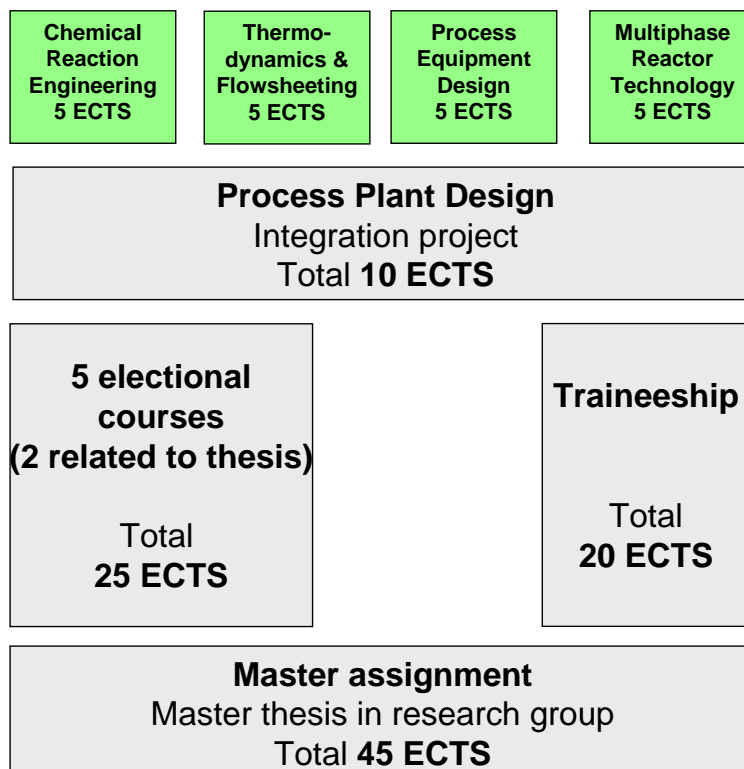
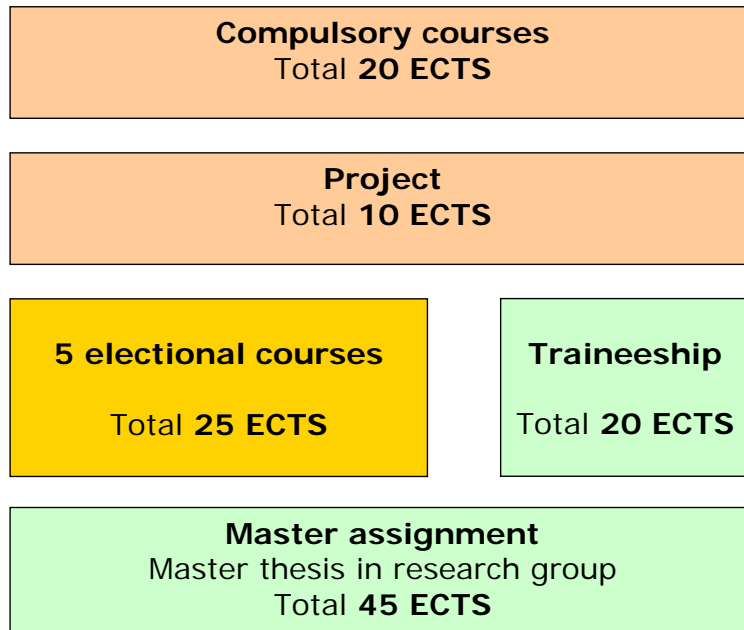


**Fundamentals of
Chemical Reaction Engineering**



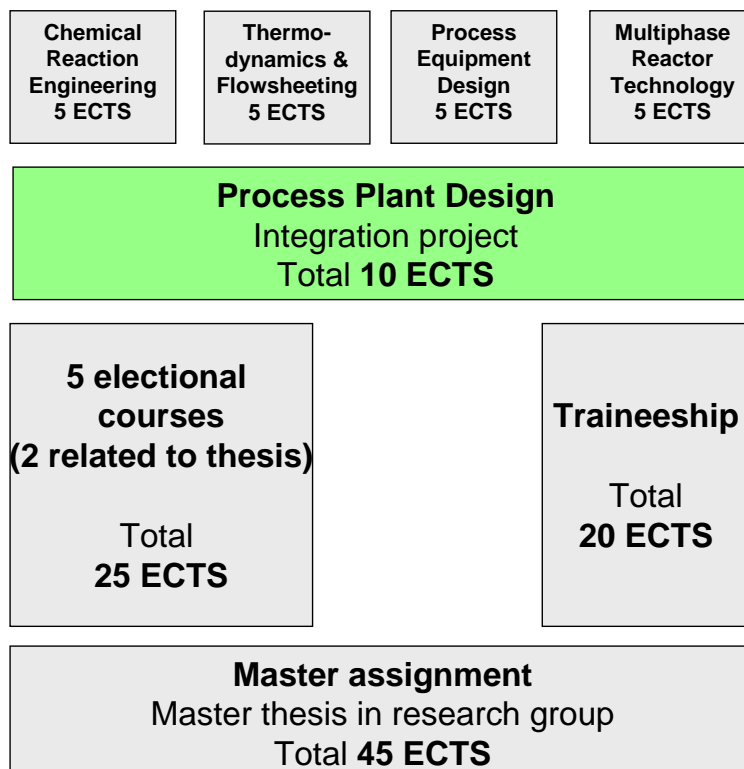
**Membrane Science
and Technology**

General structure PT track



Process Technology courses:

1. Chemical Reaction Engineering
2. Thermodynamics & Flowsheeting
3. Process Equipment Design
4. Multiphase Reactor Technology

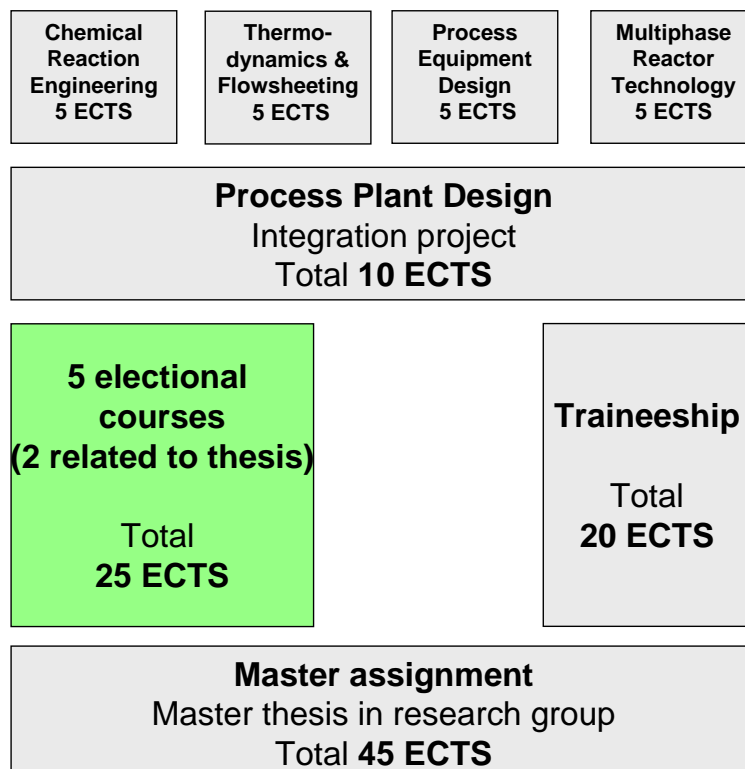


Process Plant Design

Design of a Process using a systematic procedure with only limited information.

Items:

Conceptual design, process simulation, reactor and separation method selection, heat integration, process control, safety, economics etc..



Master: 1st year

Q1	Q2	Q3	Q4
chemical reaction engineering (371502), 5 EC		process plant design (379001), 10 EC	
Inl. Comp. Fluid Dynamics (372004), 5 EC	thermodynamics en flowsheeting (373501), 5 EC		
Colloids and Interfaces (373506), 5 EC	Energy from Biomass (574003), 4 EC	process equipment design (375003), 5 EC	Hydrogen Technology (574006), 4 EC
Advanced Molecular Separations (375001), 5 EC		elective	Catalysis in the Process Industry (376503), 5 EC
Advanced Transport Phenomena (372001), 5 EC			C.S. Membrane Technology (373500), 5 EC
	Cost, Management & Engineering (411014), 3 EC		

Not Scheduled

Theory in Phase Equilibria (372005), 5 EC	CS Catalytic Proc. and Mat. (376500), 5 EC
CS Fundamentals of CRE (372000), 5 EC	Chemical Product Dev. (373503), 5 ec

Master, compulsory with prior knowledge
Master, compulsory
elective

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Capita Selecta

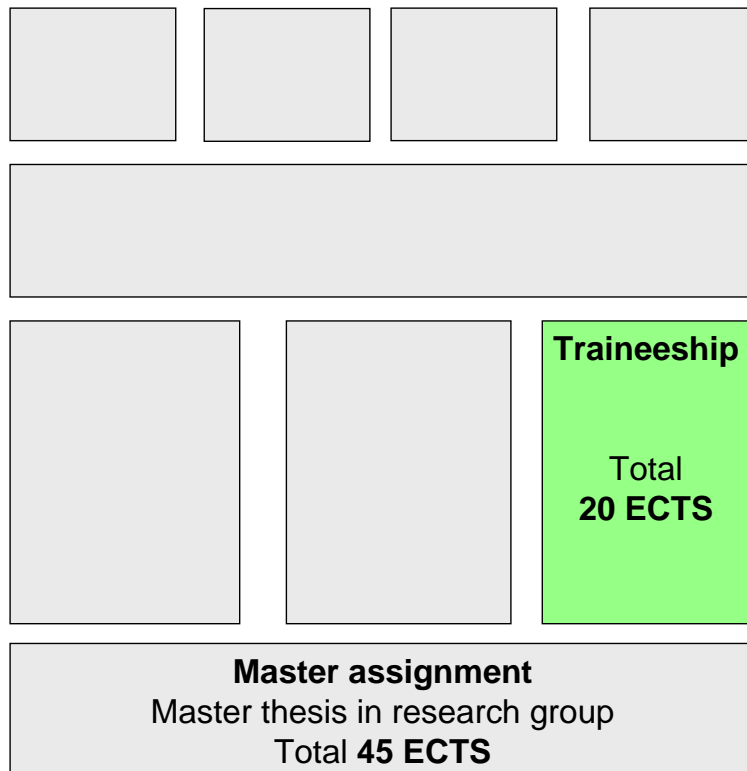
- 372000 C.S. Fundamentals of Chemical Reaction Engineering
- 373500 C.S. Membrane Technology
- 373700 C.S. Inorganic Membranes
- 376500 C.S. Catalytic Processes and Materials
- 378000 C.S. Mesoscale Chemical Systems
- 378500 C.S. Thermo-Chemical Conversion of Biomass

Contact the corresponding group

See also program guide p. 71,72

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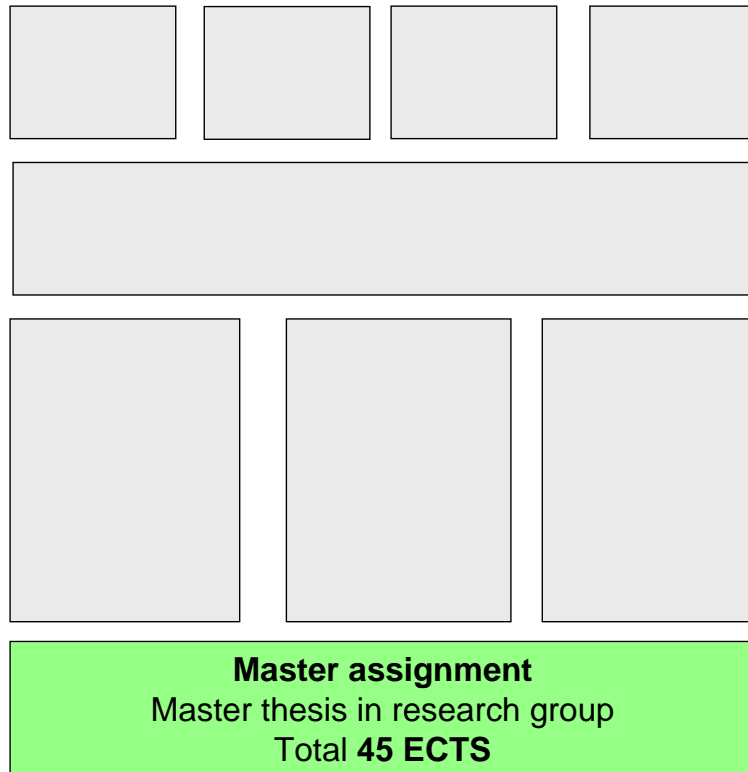
Traineeship

Ing A. (Betty) Folkers

Email: a.folkers@tnw.utwente.nl

Room: Horstring Z-102 → Horsttoren level 7

Phone: (053 489) 2772



Master assignment

- Once chosen, discuss optional courses
- Assignment ~7 months
- Supervisor from group (PhD student or staff)
- 2 grades
 - Research performance (problem analysis, experimental, result analysis)
 - Report, presentation, general (e.g. independency)

2nd year

Q1	Q2	Q3	Q4
internship (379900) 20 EC	Master Assignment (377911) 45 EC		

QUESTIONS?

