

# MASTER'S THESIS 2024-2025

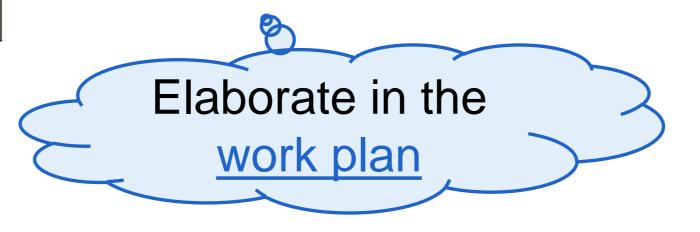
**Industrial Engineer Informatics** 



# CREDITS MASTER'S THESIS

Semester 1	30	Semester 2	30
Network and computer security	6	Cloud Storage and Computing	6
Machine Learning	6		12
Advanced Algorithms	6	Elective courses	12
System Design	3		
Elective course	3	Master's thesis	12
Master's thesis 3 half days a week	6	6 half days a week	12

- ➤ Three credits ~ 80 hours
- ➤ Depending on the student's curriculum
- Sometimes unbalanced distribution of credits over the two semesters



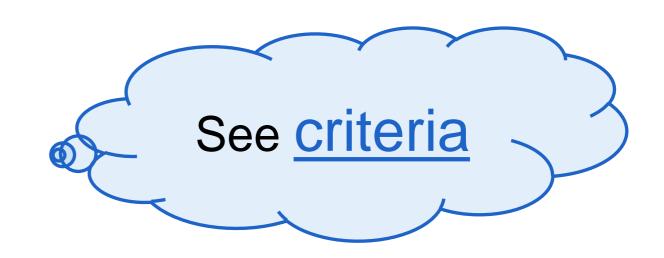


# EXPECTATIONS FOR THE CONTENT MASTER'S THESIS

- ➤ Company: technology
  - > exploration innovative aspect
  - >in-depth analysis
- >UGent: literature study
- > Tangible end result, thoroughly evaluated
- > Implementation
  - > analysis and design
  - >thoroughly tested
  - >not just executive work



**GENT** 



# TIMING MASTER'S THESIS: YEAR COURSE

- Choice of master's thesis topic
  - ➤ Capture after personal contact
- ➤ Submit work plan (October 21)
- ➤ Interim presentation: last week of first semester (16-20 December)
- ➤ Submit/read 25 pages of thesis (March 31)
- ➤ Submit/read 95% thesis (May 25)
- Final submit thesis (June 2)
- >Exam (public master exam): June 25-27



# WORK PLAN

See work plan

- Translating the master's thesis proposal on assignment
- > Keep in mind 18SP vs 24SP: less time for exploratory phase
- > Concrete objectives, approach and evaluation criteria must be clear quickly:
  - > getting to know master's thesis topic better through interaction with supervisors/supervisors,
  - literature study
- Guide through the master's thesis
- Clarified research content versus implementation expectations



# MASTER'S THESIS CONTRACT

- > Master's thesis
  - in collaboration with company
  - student works outside UGent building
- → Master's thesis contract must be signed.

Three copies with original signatures or electronically signed.

End date in contract: 09/09/2025



# **CONFIDENTIAL MASTER'S THESIS**

- Thesis may be censored for publication in Plato.
  - The assessment committee must receive a complete uncensored version.
  - Non-disclosure agreement with members of the assessment committee.
- Embargo publication date (in Plato)



# NDA WITH STUDENTS

- >Complete a unilateral declaration of confidentiality
  - Master's thesis in research group UGent: see <u>Tech</u>
     <u>Transfer</u>
  - Analogous document if cooperation with company.
- >Only the student signs this document
  - Best at the start of the master's thesis



# ARTIFICIAL INTELLIGENCE (AI)

- ➤ Artificial Intelligence (AI) is playing an increasingly important role in the digital society.
- ➤ Students must learn how to use AI in a responsible and ethical manner.
- ➤ ChatGPT, GitHub CoPilot and Google Bard may be used during the master's thesis (Gebruik Al Masterproef)
- > Make agreements about which data may be used in an Al tool.
- > The student remains responsible for the final text!
- > The thesis must explain in detail how AI was used in the appendix.



# COACHING MASTER'S THESIS

- > Read work plan
- > Present 2-3 days a week in one semester
  - > thesis and project space provided
- > Consultation with the student every two weeks
- > Organizing an interim presentation for the student
- ➤ Giving feedback to the student
  - > about the progress
  - > the first 25 pages
  - > the first draft thesis
- > Attending the Master's thesis exam (public defence)





# <u>ADMINISTRATION IN PLATO</u>

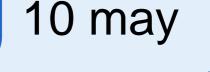
# Only for the Ugent-promoter:

> date of the interim presentation (in december)

- > proposal for the examination committee
- > approve language and title
- >avoid changes after 10 may

>date and place for the defense





# INTERIM PRESENTATION

- ➤ Last week before the Christmas holidays: 16-20/12
- >With all supervisors/promoters involved
- The first results are discussed
- > Discussion about the further course
- ➤ Possible adjustment of objectives, ....

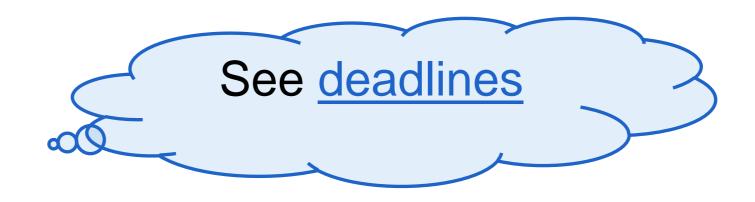


# EXAM – PUBLIC DEFENCE:

#### 3 moments:

- > January 2025 (special session)
- June/July 2025 (1st session)
- > September 2025 (2nd session)

Shifting deadlines...





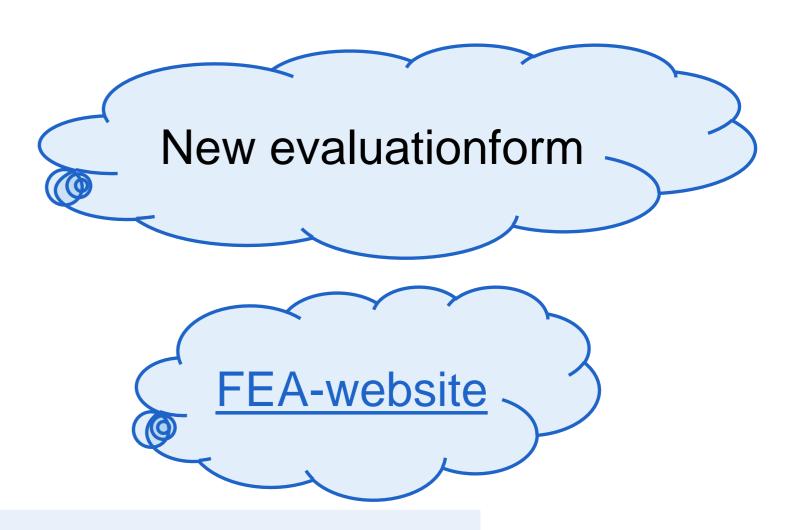
# MASTER'S THESIS - ASSESSMENT

- Assessment committee: at least one external person who is not involved in the master's thesis
- ➤ The end result of the master's thesis is compared with the set goals.
- > Classification is used in final evaluation
- The assessment committee gives the end points in consultation



# FINAL EVALUATION BY ASSESSMENT COMMITTEE

Assessment of				
Process	30%			
Product	30%			
Exam - public defence	40%			



NIEUW in AJ 2024\_2025



De faculteit Ingenieurswetenschappen en Architectuur heeft de beoordeling van de masterproef gewijzigd: er zijn nieuwe beoordelingsformulieren, -rubrics en ook de masterproefverdediging kreeg enkele aanpassingen. Deze vernieuwde evaluatie treedt in werking vanaf de start van het academiejaar 2024 - 2025. Alle masterproeven die vanaf dat moment worden ingediend zullen via de evaluatieformulieren die onderaan deze pagina te vinden zijn, worden beoordeeld.

Bekijk de korte presentatie over de aanpassingen



# FINAL EVALUATION BY ASSESSMENT COMMITTEE

	PROCES	PRODUCT	EXAMEN
Relatief gewicht	30	30	40
1 Zelfstandig relevante en actuele informatie opzoeken en kritisch verwerken		<b>~</b>	
Opzoekwerk			
Verwerking & kritische analyse			
2 Een onderzoeksvraag formuleren, vertrekkend van een complexe wetenschappelijke			
probleemstelling binnen de eigen ingenieursdiscipline			
Inzicht in probleemstelling			
Verwoording onderzoeksvraag			

Evaluate each aspect for process/product/exam:

Excellent (18-20)

Very good (16-17)

Good (14-15)

Sufficient (10-13)

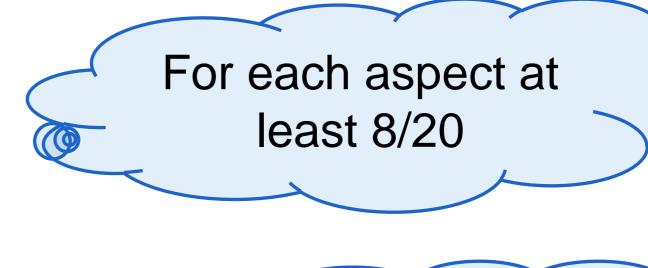
Weak (8-9)

Very poor (0-7)



# FINAL EVALUATION BY ASSESSMENT COMMITTEE

Assessment of				
Process	30%			
Product	30%			
Exam - public defence	40%			



Otherwise, the score may be 9/20



# PUBLIC DEFENSE

- >defense is attended by the full assessment committee
- >can be done with video conference
- In case of force majeure of a committee member:
  - >must be announced to the OC chairman
  - ➤ an assessment must be sent to the promoter and added in Plato



# <u>INFORMATION</u>

- Own website: <u>masterproef.tiwi.ugent.be</u>
- FEA website: civil engineer/ industrial engineer

  <a href="http://www.ugent.be/ea/nl/faculteit/diensten/studentenadministratie/masterproef">http://www.ugent.be/ea/nl/faculteit/diensten/studentenadministratie/masterproef</a>

#### Modaliteiten

- → Masterproefmodaliteiten faculteit Ingenieurswetenschappen en Architectuur AJ 2024-2025 alle opleidingen
- → Master's Dissertation Procedures Faculty of Engineering and Architecture AY 2024-2025 all programmes



Geen

onderscheid

meer

# INFORMATION FEA WEBSITE

## Masterproef

NIEUW in AJ 2024\_2025

De faculteit Ingenieurswetenschappen en Architectuur heeft de beoordeling van de masterproef grondig herwerkt: er zijn nieuwe beoordelingsformulieren, -rubrics en ook de masterproefverdediging kreeg enkele aanpassingen.

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Bekijk de korte presentatie over de aanpassingen

De aanpassingen zullen ook uitvoeriger voorgesteld worden tijdens een online informatiesessie voor studenten op donderdag 17 oktober 2024 om 12u30 (hou de Ufora infosite van de faculteit in het oog voor meer informatie).

- Nota in verband met het verantwoord gebruik van generatieve Al in de masterproef
- Nota in verband met plagiaat en wetenschappelijke integriteit



# EVALUATION FORMS/ CLASSIFICATION

Evaluatieformulieren (aanpassingen vanaf AJ 2024-2025)

Ingenieurswetenschappen: architectuur & MSc in de stedenbouw en de ruimtelijke planning

- → Evaluatieformulier masterproef ingenieurswetenschappen: architectuur / SRP
- → Evaluation form master dissertation in Engineering Architecture / SRP

Rubric voor beoordeling masterproef ingenieurswetenschappen: architectuur & MSc in de SRP (Nederlandstalige ver

#### Ingenieurswetenschappen

- → Evaluatieformulier masterproef ingenieurswetenschappen
- → Evaluation form master dissertation in Engineering

Rubric voor beoordeling masterproef ingenieurswetenschappen (Nederlandstalige versie / English version)

# Competenties zijn verschillend

FEA website -

Masterproef

#### Industriële wetenschappen

- → Evaluatieformulier masterproef industriële wetenschappen
- → Evaluation form master dissertation in Engineering Technology

Rubric voor beoordeling masterproef industriële wetenschappen (Nederlandstalige versie / English version)

# CONTACT

- ➤ Marleen Denert: <u>marleen.denert@ugent.be</u>
  - administrative questions
- For companies: Ghent University Supervisor
  - > substantive follow-up
  - > regular contact with the student
  - >present at interim presentation
  - ➤ Plato: fill in data



# QUESTIONS





### Veerle Ongenae

chairperson for the master in information engineering technology

**Industrial Engineer Informatica** 

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