

Opleiding

Toegekend diploma

Bachelor of Science

Programmaduur

48 maanden

ECTS credits

240

Niveau eindkwalificatie

Bachelor

Vorm

Deeltijd

Taal

Nederlands

School

Instituut voor Engineering

Locaties

Groningen

Technische Bedrijfskunde

Programmabeschrijving

De opleiding leidt de TB-student op tot generalist die vanuit een helikopterview een brugfunctie vormt tussen sturings-, voortbrengings- en ondersteuningsprocessen. De integratieve functie van de TB'er wordt versterkt doordat hij verbanden zowel horizontaal als verticaal legt in een multi- en interdisciplinaire omgeving.

Een TB-student dient gedegen onderzoek te kunnen uitvoeren in een onbekende, complexe, multidisciplinaire omgeving en dient op basis daarvan een passend advies te kunnen geven inclusief het maken van een implementatie- en beheerplan.

Leeruitkomsten

Graduates of Industrial Engineering and Management demonstrate the following behavioural traits:

1. Analyse

- a) Mapping the context of an assignment by using relevant theories, methods and/or techniques from Industrial Engineering and Management;
- b) modelling an existing product, process or service;
- c) specifying the potential impact on business management, social and subject-specific aspects;
- d) making a problem analysis and a diagnosis;
- e) formulating and elaborating a clear research question and goal.

2. Design

- a) Showing that they can devise and select a concept solution based on the pre-defined requirements as well as compliant with the design criteria;
- b) creating detailed designs based on the chosen concept solution;
- c) verifying the design on the basis of the design criteria;
- d) using relevant theories, methods and/or techniques from Industrial Engineering and Management;
- e) producing the documentation for the product, service or process.

3. Realise

- a) Making a force field analysis;
- b) selecting a change strategy;
- c) designing a change process;
- d) designing a change organisation;
- e) creating a schedule;
- f) using relevant theories, methods and/or techniques from Industrial Engineering and Management;
- g) documenting the implementation process.

4. Control

- a) Substantiating the way to manage a new situation by mapping the required people, techniques and methods as well as the costs and benefits;
- b) drawing up relevant key performance indicators;
- c) developing a process to measure key performance indicators;
- d) drawing up a management plan that enables corrective and/or preventive action;
- e) using relevant theories, methods and/or techniques from Industrial Engineering and Management.

5. Manage

- a) Setting up a project or sub-project: quantifying time and money, weighing up and quantifying risks, drawing up project documentation and organising resources (people and equipment);
- b) monitoring and adjusting activities in terms of time, money, quality, information and organisation;
- c) communicating in a task- and process-focused way;
- d) supervising stakeholders, as well as being able to encourage, collaborate with and delegate tasks to them where required;
- e) communicating and working with others in a multicultural, international and/or multidisciplinary environment and meeting the requirements that working in an organisation demands;
- f) using relevant theories, methods and/or techniques from Industrial Engineering and Management.

6. Advise

- a) Putting themselves in the position of the internal or external customer;
- b) clarifying the client's requirements;
- c) showing that they can justify the advice provided and convince the customer that it is justified;
- d) showing that they can maintain good relationships with customers;
- e) using relevant theories, methods and/or techniques from Industrial Engineering and Management.

7. Research

- a) Exploring the issues and making a diagnosis;
- b) formulating a research plan based on the exploration and diagnosis;
- c) operationalising the research and selecting research methods;
- d) gathering, interpreting and analysing research data;
- e) formulating conclusions and recommendations that correspond to the research question and goal, in accordance with the analysis of the research outcomes.

8. Professionalise

- a) Estimating and acquiring the substantive expertise required;
- b) in the case of professional and ethical dilemmas, weighing up the factors involved and making a decision, taking into account accepted standards and values;
- c) giving and receiving constructive feedback in terms of both behaviour and content;
- d) reflecting on own actions, thinking and results;
- e) using different types of communication and media to communicate effectively in Dutch and English;
- f) reporting results in accordance with the industry standard.

Programma

Technische Bedrijfskunde	credits
Jaar 1	60
□ Productontwerp	30
▫ ENDP19PNC - Product Ontwerp	10
▫ ENDP17PKPC - Keuze Product Concept	10
▫ ENDP19PR1 - Professioneel reflecteren op eigen praktijk 1	10
□ Procesverbeteren	30
▫ ENDP19PON - Procesontwerp	10
▫ ENDP23PRV - Procesverbetering	10
▫ ENDP19PR2 - Professioneel reflecteren op eigen praktijk 2	10
Jaar 2	60
□ Projectmanagement	30
▫ ENDH18PRT - Technisch Projectmanagement	10
▫ ENDH20COM - Technologie en Communicatie	10
▫ ENDH19PR3 - Professioneel reflecteren op eigen praktijk 3	10
□ Energie Transitie	30
▫ ENDH24PDO - Projectmatig Duurzaam Ontwerpen	10
▫ ENDH22VER - Verbinden	10
▫ ENDH19PR4 - Professioneel reflecteren op eigen praktijk 4	10
Jaar 3	60
□ Maintenance Engineering	30
▫ ENDH19ABA - Analyse en Beheer Assets	10
▫ ENDH19ORM - Ontwerp en Realisatie Maintenance	10
▫ ENDH19PR5 - Professioneel reflecteren op eigen praktijk 5	10
□ HTSM	30
▫ ENDH23OOT - Onderzoek Innovatiemogelijkheden	20
▫ ENDH19PR6 - Professioneel reflecteren op eigen praktijk 6	10
Jaar 4	60
□ Green Belt	30
▫ ENDH20PPO - Product Proces Ontwerp	10
▫ ENDH20POP - Proces Optimalisatie	10
▫ ENDH20PR7 - Professioneel reflecteren op eigen praktijk 7	10
□ Final Project	30
▫ ENDH3AFT - Afstudeeropdracht	30

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