Minor Be Creative Minor regulations - 2022-2023

1. Name minor:
Be Creative

2. English name:
Be Creative

3. Content of minor
The minor Be Creative focusses on the creative and entrepreneurial engineer. Within this minor you, as a student, are encouraged to create your own learning path, discover your talents and share your knowledge focusing in the WHY instead of the WHAT. The ultimate goal to achieve is that you, as part of a group of students, create a new product or concept, from a vast array of subject choices. Regarding learning and educating, minor Be Creative has the following characteristics:

- You are given a huge amount of freedom that makes you responsible for the end result;
- You as students set the pace and course;
- Lecturers are there for encouragement, advice and guidance;
- Within the concept of learning "Connecting through Technology", we educate you to become the creative engineer of the future.

Rather than learning what the teachers say you have to learn, the minor is focused on what *you* want to learn and on *your* talent. Within this minor we want to focus on a different way of learning, in order to grab all the possible opportunities and excel in a way you did not expect. We want to create an environment in which learning is key instead of focusing on a forced result implied by the school system. We want you to have a great learning experience and reach your full potential in the next 20 weeks!

Resume for diploma supplement
The minor Be Creative focusses on the creative and entrepreneurial engineer. Within this minor students are encouraged to create their own learning path, discover their talents and share their knowledge. Students of the Be Creative minor learn in real-life situations where they, as part of a group of students, create a new product or concept in collaboration with various stakeholders.

4. (Admission) restrictions of the minor
The maximum number of participants for minor Be Creative is 40. Acceptance is based on the "first come, first served" principle. Although minor Be Creative is an engineering minor, a limited number of seats (maximum 10%) is available for non-engineering students.

The following applies to engineering students:
For the Spring edition (starting in February) of Be Creative students can enroll until January 10th.
For the Autumn edition (starting in August or September) students can enroll until June 10th.

The following applies to non-engineering students:
For the Spring edition (starting in February) students can enroll until December 1st.
For the Autumn edition (starting in August or September) students can enroll until June 1st.
The earlier deadlines are needed to be able to plan and conduct an intake interview, which is required for non-engineering students (refer to the section on Entry requirements). A maximum of 10% non-engineering students can be admitted. Selection is based on technical affinity (to be assessed during the intake interview) and order of enrollment.

The following applies to all students:
For the Spring edition (starting in February), students will receive a confirmation of admission or rejection latest by January 15th.
For the Autumn edition (starting in August or September), students will receive a confirmation of admission or rejection latest by June 15th.

5. Education components (see article 17 general section of the TER)
We believe that education should be focused on the learning goals and ambitions of a student. Understanding what the qualities of each individual student are and what the student wants to improve are of great importance to let this way of educating succeed. We believe that students should show a level of growth within their learning path and goals and are willing to share their knowledge and talents among other students. Our starting point within this minor consist out of three main learning areas, that comprise our vision on education.

Personal development
We believe that a continuous learning process is valuable for the student. It is of importance that students do not only learn a lot towards the end of a project or course, but throughout the whole project. Not only will the student learn more throughout the process, the student will also be aware of their strengths and weaknesses and know where they can improve early in the process. The continuous learning process is stimulated by feedback sessions held every three weeks. Next to that, the continuous learning process is also supported by their own individual learning goals. This intrinsic motivation of learning a specific skill stimulates the student even more. A motivated student sees education as a privilege not as an obligation.

We believe, every student should be able to choose their own learning path. By choosing your own learning path, you will be more motivated to reach your goals and grow in skills and personal

development. Each student has to write a Personal Development Plan (PDP) in which the student describes who he/she is and what he/she wants to learn throughout the minor. This means that the student should be able to self-reflect and be aware of the skillset and talents they have. Not only will they be able to discover their talent, but they might find a passion and will work from that.

Regular feedback and reflection moments are more valuable than just final grades, in this way we support talent development of every individual student. Through feedback the students will realize what their strengths and weaknesses are, and how they can develop and grow even further. Receiving feedback throughout the minor gives students the opportunity to adjust their way of working or attitude and show their qualities. Providing feedback to the students, will give the students the opportunity to strive for more and excel in what they didn't expect. As there is no focus on (final) grades, students will grow along the way throughout the project, rather than growing their focus learning peak in a final exam.

Creative engineering
We believe the students are able to learn more when they are put into a real-life situation. As the projects are in collaboration with different stakeholders (companies, foundations, universities), the students experience a real-life situation with the stakeholders as client. Students need to plan and manage their own project, making them entrepreneurial and creative engineers. When the outcome of their project is successful enough, they will even realize it in the real world.

Sharing knowledge
We believe that every student has a certain set of knowledge and skills. By sharing this knowledge and skill set to the other students within their project, they are able to learn from others and grow in certain learning activities they did not expect. Students are stimulated to share their skills and their learning goals, to see and find where they match and can learn from each other. Because why would you learn something from scratch if someone else can teach you?

6. Enrolment in the education components
Not applicable.

7. Overview of tests and registration for tests (see articles 20 and 22 general section of the TER)
As indicated above we focus on three main learning areas in the Be Creative minor. Minor Be Creative is a project based minor without any written exams. Tests and examination are based on personal and group deliverables, giving and receiving feedback, and a personal final assessment interview conducted by two teachers (4 eyes principle).

The learning area Personal development is based on the Personal Development Plan (PDP), progress reports, reflection reports, and 4 intermediate feedback presentations. This learning area is graded by tutors (teachers) based on 5 indicators.

The learning area Creative engineering is based on the project process, project outcome, and project reporting. This learning area is graded by tutors (teachers) based on 12 indicators.

The learning area Sharing knowledge is based on presentation material, presentations and demo's given. This learning area is graded by tutors (teachers) based on 4 indicators.

All indicators are of equal importance for assessing the student's growth in experiences, skills and knowledge. A complete overview of the evaluation criteria and indicators of Minor Be Creative can be found in Appendix A.

The following requirements must be met in order to qualify for the final assessment:
1. The student has written and delivered a Personal Development Plan with specific goals in the first weeks;
2. The student has an overall positive feedback chart from feedback sessions, meaning that the student has demonstrated an overall growth throughout the minor. An overall positive chart means:
   - The student received a *neutral* or *positive* feedback in at least 3 out of 4 feedback sessions;
   - The student did not receive a *negative* feedback during the last feedback session.
3. The student was present at all feedback sessions;
4. The student has kept a weekly blog or progress report about his/her actions, experiences and learning;
5. The student has written critical self-reflections based on feedback received;
6. The student can prove that he/she contributed to the video of the project;
7. The student can prove that he/she contributed to the project report;
8. The student can prove that he/she contributed to the midterm presentation and demo;
9. The student can prove that he/she contributed to the final presentation and demo (at the symposium);
10. All individual and group documents were approved by the tutor / teacher.

The assessment interview has three possible outcomes:
- Fail:
  The student scores less than 11 out of the 21 indicators sufficient or higher, meaning that the student has failed the minor. Repair is not possible. The student will receive 0 credits.
- Repair:
  The student scores 11 or more (but less than 15) indicators sufficient or higher. In this case the student can enter the repairing phase in agreement with the assessors. Together they will decide what is required to repair the score.
- Pass:
  The student scores 15 or more out of the 21 indicators sufficient or higher. The student will receive 30 credits.

If case of unusual circumstances (e.g. illness), the student has to address the examination board.

8. Passing the minor
In order to pass to minor the student needs to score at least 15 out of 21 evaluation criteria (see Appendix A) sufficient or higher based on a 4-point scale. The 4-poins scale resembles the following grading:

O	O	O	O
Insufficient	Sufficient	Good	Excellent

The student will receive either a 30 credits or none (sufficient or insufficient).

If a student enrolled via "Kies-op-Maat" (KoM), the student will receive a grade based on his/her score as defined in Table 1.

Grade	# Insufficient	# Sufficient	# Good	# Excellent
1		< 5		
3		< 10		
5		< 15		
6		>= 15		
7	< 5		> 5	
8	< 3		> 10	
9	< 1			> 10
10	< 1			> 15

Table 1: Indicator requirements per grade (1-10) for KoM-students.

9. Examination Board (see article 38 general section of the TER)
Exam committee Electrical Engineering
Jan v.d. Linde (chairman)
Tekin Yilmaz (secretary)
Mohamed Talbi (member)
Willem-Jan Verkerk (member)
Marianne Kersten (secretarial assistant)

e-mail: examencommissie-engineering@fontys.nl

10. Validity
This information applies to the academic year 2022-2023.

11. Entry requirements minor
All students:
To enter the minor, all students should have received a propaedeutic certificate or have permission of the examination committee of their own educational program. We also recommend students to gain experience in project-based learning prior to the minor.

Non-engineering students:
For non-engineering students, a motivation letter showing technical interest and affinity, and intake interview are required.

12. Not accessible for
Does not apply.

No other requirements are to be met for participation in the minor or passing the minor than mentioned in these minor regulations.

Appendix A: Evaluation criteria

The student is able to show growth in the following learning areas: 1. Personal development (Assessment form A) 2. Creative engineering (Assessment form B) 3. Sharing knowledge (Assessment form C)	Evaluation level			
	Reproduce	Explain	Apply	Analyze, evaluate, create
1. **Personal development** Assessment is based on the student's final PDP, the 4 intermediate feedback sessions, personal reflections on feedback received, and concrete actions as a follow-up of feedback received. *Required <u>individual</u> products:* • *Written and approved PDP* • *Weekly Blog or Progress report* • *Written reflections on feedback received* • *Overall positive feedback chart from the 4 feedback sessions*				X
2. **Creative engineering** Assessment is based on the student's contribution to the creative development process and its outcome (i.e. the prototype or demonstrator). *Required <u>group</u> products:* • *Prototype or demonstrator* • *Video of the final prototype or demonstrator* • *Project report*			X	
3. **Sharing knowledge** Assessment is based on the student's contribution to the presentations, demos, and presentation material. *Required <u>group</u> products:* • *Midterm presentation and demo* • *Final presentation and demo (at a symposium)*				X

Assessment form A: Personal development

Indicator	Grading level Insufficient (left), Sufficient, Good, Excellent (right)				Explanation, reason, feedback
	I	S	G	E	
1. PDP approach The student has worked efficiently and result oriented using SMART goals as described in his Personal Development Plan (PDP). The student is able to analyze his development process. The student makes sufficient use of the available resources. The student shows initiative in developing himself. The student is willing to grasp the ability to learn more than expected. The student keeps his/her weekly blog or progress report updated.					
2. Giving and receiving feedback The student is able to give constructive feedback to team members. The student is able to cope with received feedback and improves himself according to the feedback received.					
3. Reflection The student is able to reflect upon his (learning) activities. The student is able to evaluate himself and the way he works in order to improve.					
4. Improvement of hard skills (technical level) The student demonstrates an improvement of his/her technical level throughout the minor. The student is able to show evidence of his/her improvement process					
5. Improvement of soft skills The student demonstrates an improvement of their soft skills throughout the minor. The student is able to show evidence of his/her improvement process.					

Assessment form B: Creative engineering

Indicator	Grading level Insufficient (left), Sufficient, Good, Excellent (right)				Explanation i.e., reason
	I	**S**	**G**	**E**	
1. Integration of soft skills & hard skills The student is able to apply his soft/hard skills within the project.					
2. Professional attitude The student is able to create a planning and works according this planning, if necessary evaluate and adapt planning. The student shows flexible behavior. The student is able to work independently and is disciplined. The student challenges himself/herself within the learning goals. The student strives for high quality of his/her contributions to the project.					
3. Creative attitude The student looks for alternative ways and methods. The student challenges initial proposals. The student uses an iterative design approach. The student asks intended users to test intermediate versions.					
4. Communication The student is able to communicate clearly with other students and stakeholders. The student keeps the relevant stakeholders involved in the project.					
5. Team work The student is able to collaborate constuctively with team members and professionals involved. The student is aware of his role in the team.					
6. Project context The student is able to analyze the context of the assignment. The students is able to identify the relevant stakeholders of the project.					
7. Project goals and requirements The student is able to describe the goals the project including boundary conditions (financial, time, etc.) The project goals have been concretely formulated in a SMART way. The student is able to define a clear set of requirements.					
8. Design or research approach The student is able to describe the chosen design or research approach (or strategy). The student is able to sufficiently motivate the chosen approach.					
9. Design or research methods The student is able to apply research or design methods that are suitable for reaching the project goals. The student is able to sufficiently underpin the chosen methods.					
10. Design or research outcomes The student is able to adequately describe the project outcomes (i.e. results) with sufficient technical detail. The student is able to describe the creative or innovative part of the project outcomes. The student is able to compare the final results to the (initial) project goals and requirements.					
11. Conclusions and recommendations The student is able to evaluate the project outcome and the process. The student is able to reflect on the project outcome and the process. The student is able to formulate relevant recommendations and follow-up actions.					
12. Reporting The student has contributed sufficiently to the project report and project video. The student is able to show evidence of his/her contributions.					

Assessment form C: Sharing Knowledge

Indicator	Grading level Insufficient (left), Sufficient, Good, Excellent (right)				Explanation i.e., reason
	I	S	G	E	
1. Preparation of midterm presentation / demo The student has contributed sufficiently to the presentation material of the midterm presentation. The student has contributed sufficiently to the midterm demo. The student is able to show evidence of his/her contributions.					
2. Midterm presentation / demo The student contributed sufficiently to the actual presentation / demo. The student actively participated in the Q&A session.					
3. Preparation of final presentation / demo The student has contributed sufficiently to the presentation material of the midterm presentation. The student has contributed sufficiently to the midterm demo. The student is able to show evidence of his/her contributions.					
4. Final presentation / demo The student contributed sufficiently to the actual presentation / demo. The student actively participated in the Q&A session.					