For use by the Project lecturer	Approved		Revision required	

Feedback

To be completed by the student

PROJECT PROPOSAL 2024	Project no		Revision no	
Title	Surname	Initials	Student no	Study leader (title, initials, surname)

Project title (the title on the project concept note)

Language editor details | Language editor signature

Student declaration
I understand what plagiarism is and that I have to complete my project on my own.

Study leader declaration
This is a clear and unambiguous description of what is required in this project. Approved for submission (Yes/No)

Student signature | Study leader signature and date

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1. Project description
What is the problem to be solved with your project? What is your project about? What does your system have to do?

2. Technical challenges in this project

Describe the technical challenges that are *beyond* those encountered up to the end of third year and in other final year modules.

2.1 Primary *design* challenges   **Which aspects of the design of the system do you expect to be the most challenging?**

2.2 Primary *implementation* challenges   **Which aspects of the implementation to you expect to be the most challenging?**

3. Functional analysis

3.1 Functional description

Describe the design in terms of system functions as shown on the functional block diagram in section 3.2. This description should be in *narrative format*. **DO NOT** use a bullet list.

3.2 Functional block diagram (this should not be a flow diagram)

4. System requirements and specifications

These are the core requirements of the system or product (the mission-critical requirements) in table format **IN ORDER OF IMPORTANCE**. Requirement 1 is the most fundamental requirement.

	Requirement 1: the <u>fundamental</u> **functional and performance requirement of your project**	**Requirement 2** (Number 2 in the order of importance)	**Requirement 3** (Number 3 in the order of importance)
1. <u>**Core mission requirements of the system or product.**</u> Focus on requirements that are **core** to solving the engineering problem. These will reflect the solution to the problem.			
2. What is the <u>target specification</u> (in *measurable* terms) to be met in order to achieve the requirement in 1. above?			
3. <u>**Motivation:**</u> Defend the <u>specific</u> target specification, i.e. the <u>value that you selected</u>. I.e., *why* will meeting the specification given in point 2 above *solve the problem*?			
4. How will you <u>**demonstrate at the examination**</u> that this requirement and specification (points 1 and 2 above) have been met? Be explicit about how you will *prove* these were met.			
5. <u>**Your own design contribution:**</u> what are the aspects that *you will design and implement yourself* to meet the requirement in point 2? <u>If none, *remove this requirement.*</u>			
6. What are the aspects to be <u>**taken off the shelf**</u> to meet this requirement? If none, indicate "none". Clearly specify for what tasks **library functions** will be used (if relevant to the project).			

System requirements and specifications page 2

	Requirement 4	Requirement 5	Requirement 6
1. Core mission requirements of the system or product. Focus on requirements that are core to solving the engineering problem. These will reflect the solution to the problem.			
2. What is the target specification (in measurable terms) to be met in order to achieve the requirement in 1. above?			
3. Motivation: Defend the specific target specification, i.e. the value that you selected. I.e., *why* will meeting the specification given in point 2 above solve the problem?			
4. How will you demonstrate at the examination that this requirement and specification (points 1 and 2 above) have been met? Be explicit about how you will *prove* these were met.			
5. Your own design contribution: what are the aspects that *you will design and implement yourself* to meet the requirement in point 2? If none, *remove this requirement.*			
6. What are the aspects to be taken off the shelf to meet this requirement? If none, indicate "none". Clearly specify for what tasks **library functions** will be used (if relevant to the project).			

System requirements and specifications page 3

	Requirement 7	Requirement 8	Requirement 9
1. Core mission requirements of the system or product. Focus on requirements that are core to solving the engineering problem. These will reflect the solution to the problem.			
2. What is the target specification (in measurable terms) to be met in order to achieve the requirement in 1. above?			
3. Motivation: Defend the specific target specification, i.e. the value that you selected. I.e., *why* will meeting the specification given in point 2 above solve the problem?			
4. **How will you demonstrate at the examination** that this requirement and specification (points 1 and 2 above) have been met? Be explicit about how you will *prove* these were met.			
5. Your own design contribution: what are the aspects that *you will design and implement yourself* to meet the requirement in point 2? If none, *remove this requirement.*			
6. What are the aspects to be taken off the shelf to meet this requirement? If none, indicate "none". Clearly specify for what tasks l**ibrary functions** will be used (if relevant to the project).			

System requirements and specifications page 4

	Requirement 10	Requirement 11	Requirement 12
1. <u>Core mission requirements of the system or product.</u> Focus on requirements that are core to solving the engineering problem. These will reflect the solution to the problem.			
2. What is the <u>target specification</u> (in measurable terms) to be met in order to achieve the requirement in 1. above?			
3. **<u>Motivation:</u>** Defend the <u>specific</u> target specification selected, i.e. the value. *Why* will meeting the specification given in point 2 above *solve the problem*?			
4. **How will you <u>demonstrate at the examination</u>** that this requirement and specification (points 1 and 2 above) have been met? Be explicit about how you will *prove* these were met.			
5. <u>Your own design contribution:</u> what are the aspects that *you will design and implement yourself* to meet the requirement in point 2? If none, *remove this requirement.*			
6. What are the aspects <u>to be taken off the shelf</u> to meet this requirement? If none, indicate "none". Explicitly indicate what tasks library functions will be used for (if relevant to the project).			

5. Field conditions

These are the REAL WORLD CONDITIONS under which your project has to work and has to be demonstrated.

	Real world field condition 1	Real world field condition 2	Real world field condition 3
Field condition requirement. In which field conditions does the system have to operate? Describe the one, two or three most important field conditions.			

6. Student tasks

6.1 Design and implementation tasks

List your primary design and implementation tasks in bullet list format (5-10 bullets). These are *not* product requirements, but *your* tasks.

6.2 New knowledge to be acquired

Describe what the theoretical foundation to the project is, and which new knowledge you will acquire (*beyond* that covered in any other undergraduate modules).