**Yeditepe University Civil Engineering Department**

**CE 492 Engineering Project**

**Proposal Form**

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| **Supervisors Name/s** | Prof. Dr. Nesrin YARDIMCI TİRYAKİOĞLU  Dr. Öğr. Üyesi Özgür KÖYLÜOĞLU  Dr. Selçuk İZ |
| **Project Title** | *Design Alternatives for a Steel Industrial Building* |
| **Project Reference No\*** |  |
| **Relevant course/s for the project** | CE 493, CE 372 |

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| **Project Summary:** |
| *Consideration of design alternatives for a single storey industrial building; design of structural members, foundations and connections for each alternative, according to the regulations and seismic code; Bill of quantity and approximate cost calculations; preparation of a written report for project outputs including design drawings, calculations, cost and sustainability; comparison of design alternatives based on project outputs.* |

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| **Project Achievements:** | |
| **Identifying specific design objectives based on project requirements:** | 1) Structural steel design according to the standards and seismic code  2) Consideration of cost and carbon emission implications. |
| **Gathering and using relevant information** | Design requirements, architectural design, soil properties, design standards, seismic code, design softwares, unit prices, databases. |
| **Analyzing alternatives using appropriate engineering knowledge** | Steel design of a single storey building, bill of quantity and cost estimation calculations, carbon emissions. |

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| **Considering the relevant constraints in the design:** | |
| **Economy**  **Environmental Issues/Sustainability**  **Manufacturability** | 1) Cost  2) Carbon emissions  3) Product constraints |

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| **Definition of outcomes linked to the objectives of projects** | “Engineering Project” aims the students to gain the  1) ability of usage their knowledge in mathematics, science and engineering,  2) ability to identify and solve complex engineering problems,  3) design experience,  4) ability to use modern tools and employ needed information technologies,  5) ability to conduct experiments if needed, gather data and analyze results,  6) routine of combining their individual creativity with teamwork,  7) oral and written presentation experiences in foreign language,  8) ability to access information and recognition of the need for following developments in science and technology,  9) awareness of professional and ethical responsibility,  10) information about business life practices like project management and risk management,  11) awareness of effects of their engineering practices on health, environment, and safety,  12) awareness of project award mechanisms and tendering procedures,  13) awareness of the interaction of designers and constructors.  *(Minimum requirements are;*   * *project timeline,* * *abstract,* * *Türkçe özet,* * *the definition of the problem,* * *the scientific information and literature review,* * *different design alternatives and decision criteria,* * *selection of optimum alternative* * *economical, sustainability, ethical issues* * *engineering drawing and demonstration methods while presenting the solution* * *appendix including standards, patents, brochures etc.)* |

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| **Approval of the Project Approved Not Approved**  State the reason(s) if not approved: | |
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| **Department Chair:**  Prof. Dr. Nesrin YARDIMCI TİRYAKİOĞLU | Signature |

*\* Project Ref.Numbers will be given by the Engineering Design Project Committee*