## H-Form ISE 471

$\left\lvert\,$| Course Information: |  |
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| Code and Title: | ISE 471 Capstone Design Project (1) |
| Prerequisites: | Completing 139 credits |
| Co requisite (if any) |  |
| Credit Hours: 2 | Lecture Hrs. (30), Tutorial Hrs. (15), Lab (0) Total Credits ( 45 ) |
| College/ Department: | College of Engineering/Industrial and Systems Engineering | | Course Description: |
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| Senior students select a design project and apply learned tool and knowledge to design process, components, and/or system of the <br> production system; Students develop work plan, identify the problem, formulate the problem through reviewing background and <br> integrating knowledge; prepare for/or preliminary conducting of the experiments, Collect the field data, develop the mathematical <br> model if applicable; and writing a report stating preliminary findings. |\right.

## Course Objectives:

This course prepares the senior students to carry a production design project for process, product, component, and/or system on the basis of the learned knowledge reflecting the industrial engineering program objectives.

| Course Learning Outcomes |  | PLO |
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| Knowledge Understanding |  |  |
| $\mathbf{1 . 1}$ | Review related data, knowledge and experiences from credible sources. | K1 |
| $\mathbf{1 . 2}$ | Identify project problem and statement based on realistic needs and relative constraints. | K3 |
| Skills |  |  |
| $\mathbf{2 . 1}$ | Formulate problem covering methodology of integrating knowledge drawn from previous courses. | S1 |
| $\mathbf{2 . 2}$ | Plan Project effectively using project planning techniques to ensure proper project timing and <br> budgeting | S3 |
| $\mathbf{2 . 3}$ | Communicate orally and writing the project design details in technical report | S5 |
| Values | Participate effectively in a team to formulate a real-life problem model and suggest the solution <br> by applying lessons of Special Topics in Systems Engineering | V1 |
| $\mathbf{3 . 1}$ |  |  |


| Textbook: |  |  | To be determined upon needs |  |
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| Title: |  |  |  |  |
| Author(s): | - | Year and Edition: |  |  |
| Publisher: |  |  |  |  |
| Other Useful Resources: |  |  |  |  |

