## H-Form ISE 361

| Course Information: |  |
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| Code and Title: | ISE 361 Work and Process Improvement |
| Prerequisites: | ISE 221 |
| Co requisite (if any) |  |
| Credit Hours: $\mathbf{3}$ | Lecture Hrs. (45), Tutorial Hrs. (0), Lab (15), Total Credits ( 60 ) |
| College/ Department: | College of Engineering/Industrial and Systems Engineering |
| Course Description: <br> The Work and Process Improvement course provides an introduction to the principles of work analysis and design, encompassing <br> methods engineering. The curriculum delves into the study of basic work measurement techniques, exploring the applications and <br> limitations of methodologies such as stop-watch time study and pre-determined motion time systems. Students gain insights into <br> optimizing work processes and enhancing efficiency through systematic analysis and improvement methodologies. |  |$.$|  |
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## Course Objectives:

After completing the course, the student will:
Learn how to observe work in a systematic and disciplined way with the general objective of improving work methods and working conditions. Also, students will be familiar with time study, work sampling and pre-determined time systems. As well, they will be able to establish a valid performance standard data.

| Course Learning Outcomes |  | PLO |
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| Knowledge Understanding | K2 |  |
| $\mathbf{1 . 1}$ | Describe flow process chart, process mapping and man machine activity charts | K3 |
| $\mathbf{1 . 2}$ | Recognize the importance of studying the entire system or process of doing work before <br> undertaking a thorough investigation of a specific operation in the process. |  |
| Skills | Establish a specialized operation to identify and implement process or layout improvements. | S1 |
| $\mathbf{2 . 1}$ | Conduct process time study using direct methods, performance rating and allowances. | S2 |
| $\mathbf{2 . 2}$ | Cork | S4 |
| $\mathbf{2 . 3}$ | Evaluating and compare alternative work methods |  |
| Values |  | V1 |
| $\mathbf{3 . 1}$ | Work effectively on a team. |  |


| Textbook: |  |  | Work Systems and the Methods, Measurement, and Management of Work, |  |
| :--- | :--- | :--- | :--- | :---: |
| Title: | Groover, Mikell P | Year and Edition: | 2014 |  |
| Author(s): | Prentice Hal |  |  |  |
| Publisher: |  |  |  |  |
| Other Useful Resources: |  |  |  |  |

