DEVELOPING MODULE FOR THE COURSE OF INDUSTRIAL ENGINEERING SYSTEM DESIGN AT SWISS GERMAN UNIVERSITY

By

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in

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

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ABSTRACT

DEVELOPING MODULE FOR THE COURSE OF INDUSTRIAL ENGINEERING SYSTEM DESIGN IN INDUSTRIAL ENGINEERING STUDENT AT SWISS GERMAN UNIVERSITY

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To maintain its accreditation level, the Industrial Engineering department needs a laboratory course that teaches the theoretical and practical aspect of learning. To bring success of an activity in the library, a teaching material could be developed. As a part of teaching material, a well-designed module will empower student with suitable knowledge and skills that are needed in the future. To have a well-planed module there are many model to be used as an instructional design, and the one that is used in this thesis is ADDIE model framework. The ADDIE model starts from the analyze step, the design step, the develop stage, the implementation step and the evaluation step. In this research the ADDIE model are used as tool to guide the process of developing a module. The analyze step is use to identify problems in the Industrial Engineering department at Swiss German University. The design step are determining the learning activities to be put in each selected topic then, determining the needed module's specification to give illustration of what components does the module will have, the specification of the module also shows the arrangement of the component. The Development step is the drafting using data from the design step. The implementation are the test of the product, after the product is implemented student assessment from the disseminated questionnaire determine the score of the developed module. Moreover the assessment on the new purchased assembly workstation is also done. The conclusion to the developed module is that the module is good to use by the student and to expand its capability, the topic could be added. Where as for the workstation, the current height is not suitable for standing operation and suggests to be redesigned to meet the height of the user which are the Industrial Engineering student.

Keywords: Module, ADDIE Model, Ergonomic, Anthropometric, Workstation

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DEDICATION

I dedicate this works

To my self, and my family

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