

Program Name:	Mechanical Engineering	Completed by: Dr. Paul Lin, Department Chair
Department:	MS in Mechanical Engineering	Date: May 26, 2006 & graduate program dir.
		Evaluation Period: 8/29/2005 - 5/16/2006

Goal 1:

Knowledge of advanced engineering analysis and design tools

Outcome Measures	Research Completed	Findings	Review	Actions	Improvements
#1 Theis defense questionnaire for thesis committee faculty:	28 questionnaires were collected	Exemplary: 12 Satisfactory: 16 Unsatisfactory: 0	by GAC & Chair	No need for further actions	<i>Compared to last evaluation result (12/5/04 -5/13/05):</i> About the same
#2 Project questionnaire for project faculty:	None was collected (No students completed)				

The three levels of achievement are:

- (1) Exemplary: Student understands principles behind advanced analysis and design tools. **Score=3**
- (2) Satisfactory: Student is knowledgeable in some analysis and design tools. **Score=2**
- (3) Unsatisfactory: Student is unfamiliar with advanced techniques. **Score=1**

The average score is 2.43. The acceptable score for achieving the outcomes of this goal is 2.

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Goal 2:

The ability to use advanced engineering analysis and design tools to design practical problems

Outcome Measures	Research Completed	Findings	Review	Actions	Improvements
#1 Thesis defense questionnaire for thesis committee faculty:	28 questionnaires were collected	Exemplary: 12 Satisfactory: 16	by GAC & Chair	No need for further actions	Compared to last evaluation result (12/5/04 -5/13/05): About the same
#2 Project questionnaire for project faculty:	None was collected (No students completed)				

The three levels of achievement are:

- (1) Exemplary: Student understands principles behind advanced analysis and design tools. **Score=3**
- (2) Satisfactory: Student is knowledgeable in some analysis and design tools. **Score=2**
- (3) Unsatisfactory: Student is unfamiliar with advanced techniques. **Score=1**

The average score is 2.43. The acceptable score for achieving the outcomes of this goal is 2.

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Goal 3:

The ability to access and use the literature in his or her field

Outcome Measures	Research Completed	Findings	Review	Actions	Improvements
#1 Thesis defense questionnaire for thesis committee faculty:	28 questionnaires were collected	Exemplary: 10 Satisfactory: 14 Unsatisfactory: 4	by GAC & Chair	Encourage students to do literature review online	Compared to last evaluation result (12/5/04 -5/13/05): Little better
#2 Project questionnaire for project faculty:	None was collected (No students completed)				

The three levels of achievement are:

- (1) Exemplary: Student understands principles behind advanced analysis and design tools. **Score=3**
- (2) Satisfactory: Student is knowledgeable in some analysis and design tools. **Score=2**
- (3) Unsatisfactory: Student is unfamiliar with advanced techniques. **Score=1**

The average score is 2.21. The acceptable score for achieving the outcomes of this goal is 2.

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Goal 4:

Communicate effectively in written and oral forms

Outcome Measures	Research Completed	Findings	Review	Actions	Improvements
#1 Thesis defense questionnaire for thesis committee faculty:	28 questionnaires were collected		by GAC & Chair	Gave a seminar on thesis writing guidelines and oral presentation	<i>Compared to last evaluation result (12/5/04 -5/13/05):</i>
Quality of the writing style		Exemplary:8; Satisfactory:14; Unsatisfactory:6 (Average=2.07)			Slightly worse
Organization of the written thesis		Exemplary:9; Satisfactory:16; Unsatisfactory:3 (Average=2.29)			About the same
Organization of the presentation		Exemplary:10; Satisfactory:13; Unsatisfactory:2 (Average=2.07)			Little worse
Clarity of language usage		Exemplary:14; Satisfactory:14; Unsatisfactory:0 (Average=2.5)			About the same
Quality of slides		Exemplary:17; Satisfactory:9; Unsatisfactory:2 (Average=2.54)			About the same
#2 Project questionnaire for project faculty					
Quality of the writing style					
Organization of the written report					

The three levels of achievement are:

- (1) Exemplary: Student understands principles behind advanced analysis and design tools. **Score=3**
- (2) Satisfactory: Student is knowledgeable in some analysis and design tools. **Score=2**
- (3) Unsatisfactory: Student is unfamiliar with advanced techniques. **Score=1**

The overall averaged score is 2.29. The acceptable score for achieving the outcomes of this goal is 2.

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Conclusion:

1. The quality of writing style is slightly worse than before. Despite of giving a thesis writing/presentation seminar, many of our international students still could not do well in technical writing and thesis presentation. This has to do with their poor English.
2. The score for achieving goal 3 has been consistently low, even though the score is little better. Goal 3 is about accessing and using the literature in one's field. This might have resulted from the fact that our professors wanted their students to perform research for a specific topic. Nevertheless, we need to ask our students to do more literature search before working on their thesis.
3. Overall, the M.S. Program of Mechanical Engineering has achieved the four goals set forth by the department.