

**PROPOSED SEMEMSTER PROGRAM OF GRADUATE STUDY**

**Master of Science: Mechanical Engineering**

Plan A: Thesis, Minimum 30 Cr. \_\_\_\_\_  
 Plan B: Starred Paper, Minimum 32 Cr. \_\_\_\_\_

**I. Core Requirements, 15 Credits**

Number	Course	Instructor	Sem./Yr.	Credits	Grade
MATH 610	Advance Engineering Mathematics	_____	_____	3	_____
MME 601	Thermal Science in Material Processing	_____	_____	3	_____
MME 610	Dynamics of Machinery	_____	_____	3	_____
MME 620	Computer Aided, Optimal Mechanical Design	_____	_____	3	_____
MME 630	Advance Manufacturing Processes	_____	_____	3	_____
_____	_____	_____	_____	_____	_____

**II. Elective Courses (at, least 15 Credits, no more than 6 in any one area)**

*Automation, Controls, and Robotics:*

MME 550	Industrial Robots	_____	_____	3	_____
MME 554	Manufacturing Automation Systems	_____	_____	3	_____
MME 556	Manufacturing Automation Equipment	_____	_____	3	_____
EE 551	Control Systems	_____	_____	3	_____

*Design:*

MME 520	Finite Element Method	_____	_____	3	_____
MME 541	Machine Design	_____	_____	3	_____
MME 542	Mechanical Vibrations	_____	_____	3	_____

*Manufacturing:*

MME 531	Computer-Aided Manufacturing	_____	_____	3	_____
MME 535	Processing of Metals	_____	_____	3	_____
MME 536	Processing of Polymers	_____	_____	3	_____

*Materials:*

MME 510	Mechanical Behavior of Materials	_____	_____	3	_____
MME 512	Theory of Polymers	_____	_____	3	_____
MME 513	Composite Materials	_____	_____	3	_____

*Thermal Sciences:*

MME 500	Thermal Science in Product and Process Design	_____	_____	3	_____
MME 502	Design of Thermal Systems	_____	_____	3	_____

*Management:*

MME 562	Production Control	_____	_____	3	_____
MME 572	Manufacturing Systems	_____	_____	3	_____
MBA 6__	Elective	_____	_____	_____	_____
MKTG 5__	Elective	_____	_____	_____	_____
MKTG 5__	Elective	_____	_____	_____	_____

*Additional Courses*

MME 680	Special Topics	_____	_____	_____	_____
MME 681	Seminar	_____	_____	_____	_____
MME 696	Research	_____	_____	_____	_____
MME 697	Independent Study	_____	_____	_____	_____
MME 699	MS Thesis	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Thesis option requires up to 6 credits of MME 699 and thesis defense.

Non-thesis option requires at least 2 credits of MME 696 and public research presentation.

Total Core Credits \_\_\_\_\_ Total Elective Credits \_\_\_\_\_ Total Credits \_\_\_\_\_

**Credit limitation on transfer and extension credits (combined) – 10 cr.  
 Required: At least one-half of the minimum requirements of the  
 program must be earned in 600-level course work.**

ST. CLOUD STATE UNIVERSITY  
School of Graduate Studies

Application for Program Approval:  
**Master of Science, Mechanical Engineering**

Social Security Number \_\_\_\_\_ Date \_\_\_\_\_

Name in Full \_\_\_\_\_ Address \_\_\_\_\_

Home Phone \_\_\_\_\_ Business Phone \_\_\_\_\_ Present Position \_\_\_\_\_

Email Address \_\_\_\_\_ Address \_\_\_\_\_

I request transfer of the following courses: (Official transcript of all transfer credits which have been completed must be received in the Graduate Office before program can be approved.)

Dept. and Course No.	Name of College or University	Sem./Qtr. Hours	Grade	Date Taken
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

(The area below this broken line should not be filled in by the applicant.)

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I certify that this student is eligible for program approval and that I approve the program outlined in this application.

Major Adviser \_\_\_\_\_

The program outlined in this application compiles with the minimum course requirements set by this University for the Master's degree.

Graduate Dean \_\_\_\_\_

Student notified: \_\_\_\_\_