

# ME 495- Directed Research / BSc Research Thesis

## Term 181

<b>Catalog Data</b>	<b>ME495 Directed Research / BSc Research Thesis (3-0-3)</b> A well monitored and structured BSC Thesis/Directed Research Course for Active Research Projects-which could be taken only as a onetime Elective Special Topic. <u>It is only open to students having a GPA of 3 or above and consent of instructor is mandatory.</u> Faculty conducting the course must submit a formal well written program of research work and deliverables and grading policy in semester prior to enrollment for approval from department. Students can start working on the topics a head of time prior to formal enrollment as a course after its approval.
<b>Textbook</b>	To be specified by instructor
<b>Instructor</b>	Dr. Atia Khalifa
<b>Goals</b>	This course is intended to give the student the research skills including planning, designing, execution, testing, and data analysis.
<b>Outcomes</b>	<b>Specific Outcome of this Research Course</b>  The student is expected to learn how to perform scientific research based on clear objectives and goals. Publication from the course work is highly encouraged.  <b>General ME495 Outcomes</b>  (a) <b>Imparting Research Skills and Tools</b> -Course must impart necessary research skills, tools and methodology, and computational and or experimental skills to prepare and orient the student in doing independent or team oriented research work in his career or and for his graduate studies.  (b) <b>Imparting Skills to Professionally Document the Research Findings</b> -The student must be prepared to document his research finding ultimately in form of a formal research paper
<b>Research work</b>	(brief description of the research work to be provided by the instructor on the selected research topic)

**Evaluation**

The student will meet with the course Instructor on a weekly basis and submit two progress reports and one final report to the Instructor. The final report will be prepared in form of formal research paper ready for submission. He will also make a presentation at the end of the semester. The final report and the presentation will be evaluated by the Instructor and a panel of Mechanical Engineering faculty members. The panel of faculty including the course instructor) will evaluate the report and the presentation.

**Grading (suggested)**

Weekly meetings	15% (weekly meetings)
Progress Reports	30% (two progress reports, 15% each)
Final Report	20% (in Research Paper Format)
Achievements	15%
Oral presentation	20% (panel)