Experiential Learning: Developing real-life problem-based learning activities through partnership with industry — Engineering Dynamics

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The Team

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Impetus

• **Dynamics** – an “Engineering Core” course
• **Need for relevance** - subject matter & real life application
• **Traditional Lecture and Homework not meeting needs for many students.... 20% failure rate**
• **Understand concepts through ownership in learning experience ... Term projects, etc.**
Industry

• The team formation
• Goals
  – Foster students’ intuitive, visual, and contextual understandings
  – Begin building a portfolio of “real-world”
  – Increase interest in dynamics and reduce attrition
• Partnership with industry for real life learning experience. Criteria:
  – partner’s industrial activities must entail motion and forces
  – Partner proximity
  – Willingness for collaborative work with researchers
Lessons Learned...

• Students
  – Different reasons for selecting problems (3 + 1)
  – Interested in industry problems
  – Different levels of team organization

• Instructor
  – Time management challenge

• Researcher
  – Very helpful in ideas and vision

• Industry
  – Very accommodating to students, instructor, researchers
Thank you

R2000 - maximum reach of 118" in its long arm configuration