

UNDERGRADUATE STUDENT PROJECTS ADVISED FOR CREDIT (SENIOR RESEARCH, INDEPENDENT STUDY OR HONORS DEGREE REQUIREMENT), 3 CREDITS UNLESS OTHERWISE NOTED

1. Daniel Gempeshaw. 2007. Finite Element Modeling of a Fiber Reinforced Marine Seat Structure for Military Applications. Sponsored by Revenge Composites (in fulfillment of his Honors Capstone Requirement).
2. Tom Coombes. 2007. Design and Development of a Hand-Crank Dynamometer as a Hands-on Museum Activity. Sponsored by the Delaware Ag Museum. (4 credit)
3. Dan Pron. 2007. Confined compression characteristics of a mineral reinforced polymer. Sponsored by Hard Cap, LLC.
4. Dan Pron. 2006-07. Testing of Polymers for Impact Resistance on a Hammer Face. Sponsored by Hard Cap, LLC.
5. Jesse Krisher. 2006. Development of an ALGOR Finite Element Model for the Prediction of Femoral Fractures from Human Falls. Sponsored by the Dupont Co.
6. Beth Miller, Erik Pearson, and James Woodhouse. 2006. Embedded Controller Development and Vehicle Testing of a Drive-by-Wire Propulsion System for a Windrower. 2006. Sponsored by CNH America, LLC.
7. Matt Griffith. 2006. High Strain Rate Instron Testing of Reinforced Polymer Inserts for Power Tools. Sponsored by Hard Cap, LLC.
8. John Armstrong and Greg Stewart. 2005. Design and Testing of a Mechanical Harvesting System for Indoor, Closed System Tilapia Production. Sponsored by Blair View Aquaculture Farm. (3 credits each).
9. Julia Levinson. 2005. Automated Measurement of Laminate Bond Strength for Substrates Bonded to Teflon Membranes. Sponsored by W.L. Gore and Associates.
10. Craig Livingston. 2005. Computer-Aided-Drafting Fundamentals (1 credit).
11. Barry Levinson. 2005. Solid Modeling with Mechanical Desktop (1 credit).
12. Mark Deaver. 2004-05. Parametric Modeling and Finite Element Analysis of Disposable Testing Components for Measuring Laminate Bond Strength. Sponsored by W.L. Gore and Associates.
13. Gwen Thorsen. 2003-04. Software Development and Testing for the Automatic Transmission of Data via a Cellular Modem. Sponsored by the Delaware Department of Natural Resources and Environmental Control. (6 credits)
14. Eric Busby. 2004. Development of a Remote Controlled Drip Tape Cutter. Sponsored by Busby Farms.
15. Jennifer Lawrence and James Moore. 2004. Development of a Test Stand for the Vibration Analysis of Power Tools. Sponsored by Baltimore Tool Works, Inc.
16. Dominic Schiavoni. 2004. Design of a Drop Hammer for Constant Energy Impact Testing. Sponsored by Baltimore Tool Works, Inc.
17. Dan Muhlenforth. 2004. Design and Testing of Low Vibration Accessories for Hand-Struck Tools. Sponsored by Baltimore Tool Works, Inc.
18. Derrick Dickerson. 2004. Development of an Automated Test Device for Evaluating the Wear Characteristics of Poultry Nipple Drinkers. Sponsored by the Delaware Cooperative Extension Service. (co-advised w/ Gary Van Wicklen).
19. Eric Busby. 2004. Development and testing of a device for accelerated life testing of an Air Pogo. Sponsored by Leavis and Rests, P.C.
20. Dan Muhlenforth. 2003-04. Software and sensor arrangement for determining the frequency content of hand-mounted accelerometers. Sponsored by Baltimore Tool Works, Inc.
21. Dominic Schiavoni. 2003-04. Measurement of vibration transmitted to the hand from hand-struck and power tools. Sponsored by Baltimore Tool Works, Inc.
22. Dominic Pellegrenio. 2003. Design of a steel frame flooring system with EPS foam insulation. Sponsored by Ecothermal Panel Systems, Inc.

23. Mike Fyock and Dan Meckley. 2003. Structural analysis and hydraulic automation of a prototype kicker for round balers. Sponsored by Case New Holland, Inc.
24. Annie Tseng. 2003. An automated testing machine and methodology for ceramic wafer substrates used for blood sample analysis. Sponsored by Dade Behring.
25. Matt Mitch. 2002. Development of a computer design tool for the cooling systems on skid-loaders. Sponsored by Case-New Holland, Inc.
26. Dawn Cintavey. 2002. Finite element analysis of extruded aluminum structures. Sponsored by National Forensics Engineers, Inc.
27. Mark Orgovan and Dan O'Brien. 2002. Evaluation of a Two-Piece Chisel System Designed with a High Performance Engineering Polymer. Sponsored by Baltimore Tool Works, Inc.
28. Pete Truitt. 2002. Automatic Pneumatic Capping System for Containers with Dental Adhesive. Sponsored by Densply-Caulk.
29. Julian Jones and Matt Dougherty. 2002. Development of an Automated Cutter for Plastic Sleeves. Sponsored by Xymid, LLC.
30. Tony Nasr. 2002. Design of a Framing System and Fasteners for Attaching Solar Module Systems to Steel-Framed Structures including Electrical Isolation. Sponsored by the UD Solar Decathlon and AstroPower.
31. Tony Nasr. 2002-03. Ergonomic Testing of a New Hand-Struck Chisel System. Sponsored by Baltimore Tool Works, Inc.
32. Mike Vassallo. 2002. Development of High Volume Compression System for Silage Samples. Sponsored and co-advised by Dr. L. Kung.
33. Rich Herseim. 2002. Design, Analysis and Testing of Plastic Drivetrain Shields on Case-New Holland Windrower Headers. Sponsored by Case-New Holland, Inc.
34. Pete Truitt. 2002. Finite Element Analysis of the Impact of a Hammer-Tool System. Sponsored by Baltimore Tool Works, Inc.
35. Andrew Drysdale. 2002. The Current State of Photovoltaic Technology. (as part of his Honors Degree Capstone Requirement in Mechanical Engineering).
36. Doug Cook, Jeff Gordon, and Matt Dunson. 2001. Development of *AutoGap*: A Control System for the Automatic Adjustment of Windrower Roll Gap. Sponsored by Case New Holland, Inc. (3 credits each)
37. Ian Cosden. 2001. Labview Software Development and Field Testing for the Automatic Control of DC Motor Angular Displacement. Sponsored by Case-New Holland, Inc.
38. Tim Filasky. 2001-02. Design of a Precision Push Planter. Sponsored by Delaware Cooperative Extension and Rogers Seed Co.
39. Mac Cushing. 2001-03. Design of an Automatic Fabric Feed System for the Composite Center Laser Cutter. Sponsored by Cirrus Engineering.
40. Nikki Rossi. 2001. Feasibility of an On-line Degradation Sensor for Soy-based Hydraulic Fluids. Part of a project funded by Dupont. (co-advised with Mike Keefe)
41. Chad Stover. 2000. Development of Improved Vaccination System for Day-of-Age Marak's Vaccine. Sponsored by the Allen Laboratory.
42. Andy Park. 2000. Development of Teaching Modules for CAD/CAM and CNC Machining. (co-advised with Mike Keefe).
43. Matt Dunson and Yuen Yoong Leong. 2000. Demeter Project System ID and PID Controller Design. Sponsored by New Holland, N.A.
44. Matt Behr. 1999. Development of a Non-Invasive Sensing Method for the Measurement of Watermelon Sugar Content. Sponsored by Delaware Cooperative Extension.
45. Ken Miller and Rob Banks. 1998. Experimental evaluation of a subcutaneous Vaccination System for Day-of-Age Marak's Vaccine. (co-advised with M. Keefe).
46. John Filasky. 1997. Design Requirements for a Watermelon Harvester.
47. Dan Hoffstetter. 1997. Yield Monitor Designs for Vegetable Harvesters. Sponsored as part of a grant from FMC Corp.