

### **ASEN 2002: Aerodynamics of a Cambered Airfoil Lab**

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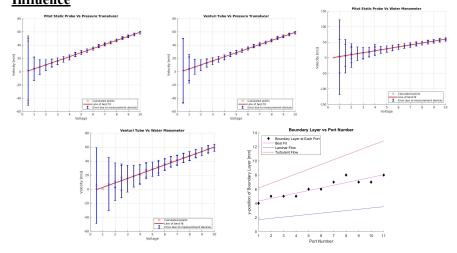


#### **Overview**

- Objectives: Gain an understanding of wind tunnel testing, 2D airfoils, how to measure airspeed (using Bernoulli's equation and the conservation of mass), and how lift/drag force coefficients relate to angles of attack
- Configuration: PILOT Low-Speed Wind Tunnel, open-circuit suction wind tunnel, closed rectangular test section, creates uniform steady flow
- Instruments: temperature sensor, U-tube manometer, pressure transducers, static pressure rings, Pitot-Static Probe

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## <u>Airspeed Calculation and Airspeed Model & Boundary Layer Influence</u>



#### **Lift and Pressure Drag Coefficients**

