

SUGARBUSH SOARING GROUNDSCHOOL – 2009

Saturday Mornings 8-10:30 a.m. June and July - Satisfactory completion will result in sign off for taking the knowledge test (In accordance with 61.103e) for Private (61.105 a&b), or (In accordance with 61.307a) for Sport Pilot (61.309 a-l) Knowledge Tests and for the ground portion of the Flight Review for both power and glider pilots. This course is designed for both airplane and glider ratings.

Cost is \$225 for all eight classes or \$35 for individual classes. Books and materials will run an additional \$60 approximately.

General Outline of Material to be covered in each class. Note: classes 3 and 4 will both be given on the third Saturday, classes 5 and 6 will cover material over three consecutive Saturdays for a total of eight Saturday sessions (June 6, 13, 20, 27, July 11, 18, 25, Aug 1).

- I. June 6 - **Introduction**
 - A. Certification
 1. Requirements of Part 61 for Commercial, Private, Sport Pilot
 - a. Minimum requirements, differences: Sport Pilot, Rec. Pilot, Pvt., Comm, Glider/SEL
 2. Aircraft: Category, Class, Type, Requirements of registration
 3. Currency requirements
 - a. Flight Review
 - b. Medical
 - c. 90 - day
 - B. VFR/IFR - Part 91 General Flight Regulations

 - II. June 13 - **Mechanics**
 - A. Powerplant
 1. Recip. Engine functions/ fuel requirements
 2. Maintenance requirements/owner assist
 3. Time – TBO, logs, etc.
 - B. Airframe
 1. Maintenance requirements
 2. Monocoque aluminum/composite/tube and fabric construction and repair
 - a. Inspection, maintenance, rebuild
 3. Aircraft Design
 - a. Tricycle/conventional gear
 - b. Tandem/side-by-side
 - c. Stick/yoke
 4. Aircraft instruments

 - III. June 20 - **Flight Maneuvers**
 - A. Basics of flight

1. 3 axes of control/ control function/ forces of flight
2. Coordination, steep turns, rate of turn, slip/skid, spins
3. Torque, “p factor,” gyroscopic effect
- B. Steep turns – 360's, 720's
- C. Stalls, Stall recoveries – turning and straight
- D. S-turns across a road, Turns around a point
- E. T.O.'s – normal, short field, soft field
- F. Landings – normal, short field, soft field

IV. June 20 - **Airport Operations/Radio Procedures**

- A. Standard operating procedures
- B. Runway markings/ traffic patterns
- C. Tower? Non-tower controlled airports
- D. FSS/Center/Tower/Approach Control

IV. and VI. June 27, July 11, July 18 - **Navigation, Aviation Weather, and Flight Planning**

- A. VFR – Sectional charts, plotter, E-6B, VOR, ADF, GPS
- B. Flight Planning
 1. Aviation weather – ASOS, AWOS, Surface analysis, Wx depiction, surface prog, sequence
 2. Pireps/ Notams
 3. Duat (Direct User Access Terminal) System
 4. Temporary Flight Restrictions (TFR's)
 5. Weight and balance computation
 6. Aircraft performance charts
- C. Cross-country requirements and planning
 1. TAS, True-Magnetic course and Heading, Hemispheric alts
 2. Indicated/Calibrated/True/Ground speeds

VII. and VIII. July 25, August 1 - **FAA Regulations**

- A. Part 91 – General Aviation
 1. Weather minimums
 2. AIRSPACE
 3. TFR's and ADIZ
- B. Part 61 – Certification
- C. Part 67 – Medical
- D. NTSB Part 830 – Accident/Incident reporting