STEEP TURNS

2,500’ AGL MINIMUM ALTITUDE

Goals:

Learn to recognize aircraft “feel” when increasing the load factor on the wings.
Learn the control inputs required to maintain altitude in a turn.

Procedure:

Select an entry altitude per Airman Certification Standards (ACS)
Perform clearing turns
Configure the aircraft – mixture rich
Increase power approximately 100 rpm and increase back pressure at about 30º of bank to help maintain altitude and continue increasing bank angle to 45º +/- 5º
Note the point the glare shied intersects the horizon and hold it there for a 360º turn (e.g. bug spot)
Check v/s, altitude, pitch
If altitude is decreasing, momentarily decrease bank angle and adjust pitch

Recover by:

Decreasing angle of bank, reducing power to normal cruise setting
Using rudder to maintain coordination
Transition to a normal flight attitude

Common Mistakes:

Allowing the aircraft pitch to decrease during turn entry
Flying by the attitude indicator rather than using the horizon
Trying to regain altitude with back pressure rather than decreasing bank angle
Not applying forward pressure on the yoke during the recovery
Failing to maintain coordinated flight