



Roadmap to Course Success

The following key points will guide you through your course(s) and instill proper preparation, planning, pre-dive and post-dive procedures. It is prudent to make it a habit to follow them diligently.

Pre-Dive:

- Inventory all gear needed and check for proper operation (make a list if needed)
- Establish a consistent sequence of packing, assembling and unpacking your gear
- Establish a consistent sequence of dressing into and undressing out of your dive ware
- Establish a consistent sequence of donning and doffing your gear
- Analyze all gases to be used, label contents on every cylinder and take 2 breaths from all cylinders
- Record the starting pressure in all tanks to be used
- Create a dive plan - and discuss with team - taking into account:
 1. Gas Supply (Type & Volume)
 2. Decompression Obligation
 3. Narcosis Exposure
 4. Oxygen Toxicity Exposure
- Create and discuss a contingency plan
- Pull a vacuum on all second stages to be used

Start of Dive:

- Flow Check
- S-Drill
- Check wing & suit inflation and dump systems
- Gear Matching (incl. bellows pocket content)
- “Gas Matching” - confirm gauge pressures and establish turn pressures, “Rock Bottom” etc.
- “Wet-breathe” from second stages before descent
- Bubble Check at the surface or 20ft/6m
- Turn on primary light on (it stays on until the end of dive)

Post-Dive:

- Breathe highest FO₂ deco gas while relaxing on the surface prior to exiting the water
- Record the ending pressure in all tanks used
- Log dive, get confirmation signatures from instructor and/or teammates
Log has to include:
 - Max. Depth
 - Avg. Depth
 - Total Bottom Time
 - Max. PPO₂ Exposure
 - Max. CNS% Accumulation
 - Surface Interval (if applicable)

Establish and/or Confirm SAC Rate:

- Calculate gas consumption in psi over the total bottom of the dive
- Convert psi used to cf used (use Tank Factors for each cylinder used)
- Establish average depth of the dive and convert to P_{ata}
- Establish total bottom time
- Calculate cfm: cf used ÷ total bottom time = cfm at depth
- Calculate cfm at the surface (SAC): cfm at depth ÷ P_{ata} = SAC

Example: A 45min dive to 66ft/20m in a set of E-7 100cf doubles filled to 3500psi used 2000psi

		Bottom Time	Depth in ata	Tank Factor
PSI In:	3500psi	45min	3ata	6
PSI Out:	2000psi			
Δ PSI:	1500psi			
CF used:	90cf	CFM: 2cfm		
SAC	0.66cfm			

Notes:
