



DSAT Tec 40 Diver

Course Instructor: Al Schumer, Northwest Diving Institute (www.nwscuba.org)

Email: als@nwscuba.org

Course Type: DSAT Tec 40 Diver

Course Tuition: \$295.00 **Required Text:** [Tec Deep Diver Manual](#)

Pre-requisites

- 1: [Advanced Open Water](#) 2: [Enriched Air Diver](#) 3: [Deep Diver](#)
4: [18 years old](#) 5: [30 logged dives: at least 10 enriched over 60 feet.](#)

Session One

Session Type: [Classroom](#) **Session Location:** [UWS Seattle](#)

Session Date: [Friday, October 08, 2010](#) **Session Time:** [4:00 PM](#)

Specifics: We'll start a busy weekend of tech diving in the classroom reviewing paperwork and going over the three independent knowledge development modules. These modules must be completed prior to the start of the course and are distributed electronically in Portable Document Format upon registration, along with other delivery content. Do **not** complete the knowledge reviews in the *Tec Deep Diver Manual*.

We'll then take a break for dinner (pizza will be delivered) and chat about the dive plan for the weekend before heading to the pool deck for Practical Application One and Training Dive One.

Session Two

Session Type: [Pool Deck](#) **Session Location:** [UWS Seattle](#)

Session Date: [Friday, October 08, 2010](#) **Session Time:** [After Interval](#)

Specifics: We'll meet on the pool deck with all our tec gear for Practical Application One.

First, we'll review the proper rigging for both Tec 40 and Tec 45/50 kits referring to your student handouts as necessary. Then, working in teams, you will assemble your gear in the appropriate configuration and present them for instructor review.

We'll then suit up and enter the shallow area of the pool ready to begin Training Dive One

Session Three

Session Type: Pool Session

Session Location: UWS Seattle

Session Date: Friday, October 08, 2010

Session Time: After Interval

Training Dive One is a no-decompression dive conducted in 8-30' of water using air or enriched air up to EANx50 and comprises the following skills:

Specifics:

- Proper weighting
- Neutral buoyancy hovering
- Regulator free-flow – valve shutdown
- Regulator free flow – team mate assist
- Manifold leak – isolator shutdown
- Manifold leak – team mate assist
- Out of gas – long hose receiver
- Out of gas – long hose donor
- Bubble check, descent check and S-drill
- Don, remove and replace stage/deco cylinder on the bottom
- NO TOX gas switch
- Gas shutdown drill
- Deploy lift bag/DSMB
- SAC swim at constant depth
- Simulated decompression stop
- Remove/replace stage/deco cylinder at the surface
- Recheck weight with near empty cylinders

We'll then break for the night and meet back the next morning for the exam and Practical Application Two before heading to the beach for Training Dive Two.

Session Four

Session Type: Classroom

Session Location: UWS Seattle

Session Date: Saturday, October 09, 2010

Session Time: 9:00 AM

Specifics: We'll answer any equipment or knowledge development questions from the night before and then take the Tec 40 Diver Exam. We'll grade the exams together, take a short coffee break, and continue on to Practical Application Two, which requires the use of personal computer and decompression software.

Session Five

Session Type: Classroom

Session Location: UWS Seattle

Session Date: Saturday, October 09, 2010

Session Time: After Interval

Specifics:

Practical Application Two covers the basic features and operation of desktop decompression software. A brief introduction to the V-Planner desktop decompression software will be made after which students will calculate their SAC rates.

Working as teams, students will then plan a decompression dive taking into account depths, times and gases provided by the instructor and accounting for all segments of *A Good Diver's Main Objective Is To Live*. Teams, with instructor guidance, will then think backwards through the dive identifying possible problems and formulating realistic solutions, compiling a written list of both.

We'll then break and head for the beach to conduct Training Dive Two in open water.

Session Six

Session Type: Open Water

Session Location: Cove 3, Alki Beach

Session Date: Saturday, October 09, 2010

Session Time: After Interval

Specifics:

Training Dive Two is a no-decompression dive conducted in 30-60' of water using air or enriched air up to EANx50 and comprises the following skills:

- Don and remove single deco cylinder at the surface
- Controlled descent
- Bubble check and decent check
- Stage and retrieve deco cylinder on the fly
- Swim two minutes sharing air as donor and receiver
- Gas shutdown drill (60 seconds)
- SAC swim (5 minutes)
- Time/depth and gas supply awareness
- Turn pressure/time limit awareness
- Lift bag/DSMB deployment
- Second lift bag/DSMB deployment
- Ascent to a simulated decompression stop
- 10 minute SAC decompression
- NO TOX gas switch while neutrally buoyant
- Simulated emergencies

We'll then break for the night and meet back the next morning for Practical Application Three, and open water Training Dives Three and Four.

Session Seven

Session Type: Classroom

Session Location: UWS Seattle

Session Date: Sunday, October 10, 2010

Session Time: 9:00 AM

Specifics:

Practical Application Three consists of calculating swimming SAC rates and planning two decompression dives taking into account depths, times and gases provided by the instructor, and accounting for all segments of *A Good Diver's Main Objective Is to Live*. Teams will think backwards through each dive identifying possible problems and formulating realistic solutions. Teams will then submit their dive plans and written lists of problems and solutions for review.

Once all plans are approved, we'll head to the beach to conduct open water Training Dives Three and Four.

Session Eight

Session Type: Open Water

Session Location: Cove 2, Alki Beach

Session Date: Sunday, October 10, 2010

Session Time: After Interval

Specifics:

Training Dive Three is a no-stop decompression dive conducted in 50-80' of water using air or enriched air up to EANx50 and comprises the following skills:

- Controlled descent
- Bubble check and decent check
- Gas shutdown drill (45 seconds)
- Time/depth and gas supply awareness
- Turn pressure/time limit awareness
- Lift bag/DSMB deployment
- Ascent along lift bag line to a simulated decompression stop
- Simulated decompression stop while neutrally buoyant
- Simulated emergencies

We'll then take a break, off-gas, swap tanks and get ready for Training Dive Four.

Session Nine

Session Type: Open Water **Session Location:** Cove 2, Alki Beach

Session Date: Sunday, October 10, 2010 **Session Time:** After Interval

Specifics: Training Dive Four is a decompression dive conducted in 85-130' of water using air and enriched air up to EANx50 and comprises the following skills:

- Controlled descent
- Bubble check and decent check
- Dive Mission TBD
- Turn dive at pressure/time limit
- Ascent and decompression
- Simulated or actual emergencies

We'll then break down our gear and grab a victory dinner at Salty's.

Final Session

Session Type: Graduation **Session Location:** Alki Beach

Session Date: Sunday, October 10, 2010 **Session Time:** After Interval

Specifics: Congratulations! You are now a certified DSAT Tec 40 Deep Diver. We'll do log books and certification paperwork over some food and discuss your future technical dive plans.

Equipment Required for this Course

Item 1: See Detailed List **Item 2:** DAN Insurance

Equipment Recommended for this Course

Item 1: Personal Computer **Item 2:** Decompression Software (V-Planner recommended)

NOTES: This course is the first step towards the full Tec Deep Diver certification which comprises the Tec 40, Tec 45 and Tec 50 sub-courses. Each sub-course requires three knowledge development modules and four training dives. Manifolded doubles are required for Tec 45 and Tec 50. Please contact Al Schumer prior to making any significant purchases for help and advice.