



DSAT Tec 50 Diver

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

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Course Type: DSAT Tec 50 Diver

Course Tuition: \$395.00 **Required Text:** Tec Deep Diver Manual

Pre-requisites

1: Certified Tec 45 Diver 2: 100 logged dives (20 EAN over 60'; at least 15 over 100')

Session One

Session Type: Classroom **Session Location:** UWS Seattle

Session Date: Friday, November 05, 2010 **Session Time:** 4:00 PM

Specifics: We'll start a busy week of tech diving in the classroom reviewing paperwork and going over the two 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, November 05, 2010 **Session Time:** After Interval

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

Specifics: First, we'll review the proper rigging for both Tec 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.

Then, working in teams you'll plan a hypothetical dive with two gas switches for accelerated decompression with no fewer than five decompression stops adequately addressing all points of a Good Divers Main Objective Is To Live. We'll then compare team calculations and discuss any variations.

Finally, teams will plan a mission, simulated mission or practice mission to execute as part of the dive being planned.

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, November 05, 2010

Session Time: After Interval

Training Dive One is a no decompression dive with five simulated stops conducted in 8-30' of water using air or enriched air and comprises the following skills:

Specifics:

- Proper weighting
- Don two stage/deco cylinders on the surface
- Bubble check and descent check, S-drill
- Stage deco cylinders
- Gas shutdown drill on bottom
- Retrieve and don two deco cylinders
- Stage deco cylinders on the fly
- Retrieve deco cylinders on the fly
- Ascend to stop depths performing NO TOX switches
- Teammate breathing wrong gas drill
- Surface, switch to back gas and re-descend to depth
- SAC swim at constant depth
- Stage deco cylinders
- Execute mission
- Catastrophic gas loss exercise
- Simulated decompression-stops with NO TOX switches
- Air breaks
- Simulated emergencies
- Remove and deco cylinders at the surface
- Gas, time and depth awareness

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, November 06, 2010

Session Time: 1:00 PM

Specifics: We'll answer any equipment or knowledge development questions from the night before and then take the Tec 50 Diver Exam. We'll grade the exams together, take a short coffee break, and continue on to Practical Application Two.

Session Five

Session Type: Classroom

Session Location: UWS Seattle

Session Date: Saturday, November 06, 2010

Session Time: After Interval

Specifics:

In Practical Application Two, working in teams you'll plan a hypothetical dive with two gas switches for accelerated decompression adequately addressing all points of a *Good Divers Main Objective Is To Live*.

Finally, teams will plan a mission, simulated mission or practice mission to execute as part of the dive being planned.

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, November 06, 2010

Session Time: After Interval

Specifics:

Training Dive Two is a no-decompression dive conducted in 40-80' of water using air or enriched air and comprises the following skills:

- Don and remove two deco cylinders at the surface
- Bubble check
- Decent check
- Stage deco cylinders
- Gas shutdown drill
- Perform planned mission
- Simulated emergencies
- Retrieve and don deco cylinders
- NO TOX gas switches while simulating deco stops
- Gas shutdown drill (neutrally buoyant)
- Air break
- Emergency signal to surface support drill
- Remove stage/deco on the surface
- Time/depth and gas supply awareness

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, November 07, 2010

Session Time: 1:00 PM

Specifics: Practical Application Three consists of planning two decompression dives with two gas switches using desktop decompression software 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*.

Finally, teams will plan a mission, simulated mission or practice mission to execute as part of the dive being planned.

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: Lighthouse Park

Session Date: Sunday, November 07, 2010

Session Time: After Interval

Specifics: Training Dive Three is a decompression dive with two gas switches conducted in 100-165' of water using air, enriched air or oxygen and comprises the following skills:

- Don and remove single deco cylinder at the surface
- Bubble check
- Descent check
- Mission
- Time/depth and gas supply awareness
- Ascent and decompression, NO TOX gas switches

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:** Lighthouse Park**Session Date:** Sunday, November 07, 2010 **Session Time:** After Interval

Specifics: Training Dive Four is a decompression dive with two gas switches conducted in 130-165' of water using **trimix**, air, enriched air or oxygen and comprises the following skills:

- Don and remove single deco cylinder at the surface
- Bubble check
- Decent check
- Mission
- Time/depth and gas supply awareness
- Ascent and decompression, NO TOX gas switches

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

Final Session**Session Type:** Graduation Dinner **Session Location:** Diamond Knot**Session Date:** Sunday, November 07, 2010 **Session Time:** After Interval

Specifics: Congratulations! You are now a certified DSAT Tec 50 Deep Diver. We'll do log books and certification paperwork over dinner 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 final step towards the full Tec Deep Diver certification which comprises the Tec 40, Tec 45 and Tec 50 sub-courses. Each sub-course requires either two or 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.