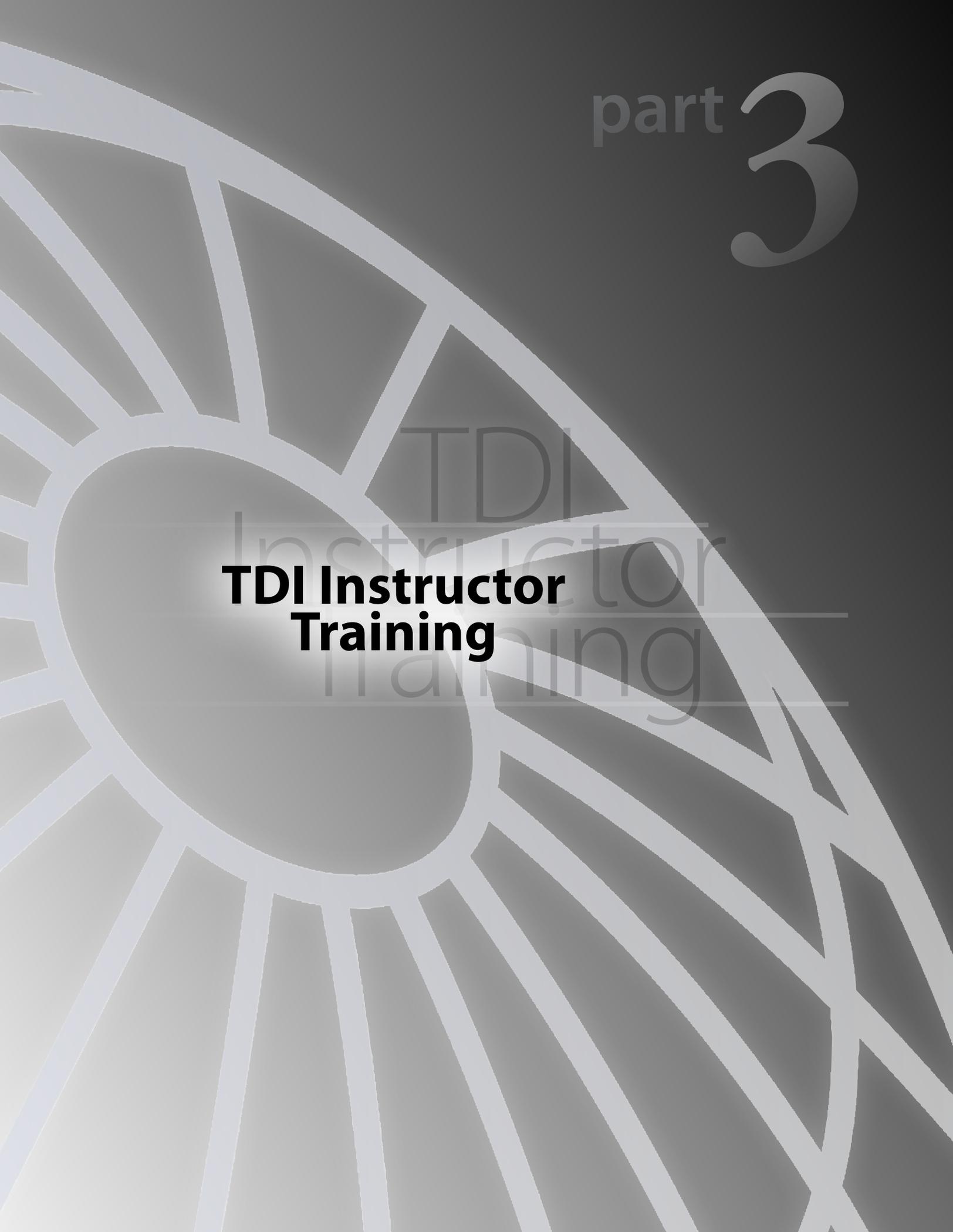


part 3



**TDI Instructor
Training**

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About the TDI Instructor Courses

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The Instructor Trainer Manual Part 1, along with this section Part 3, are used to train new TDI Instructors. The Instructor Trainer will be directed to Part 1 or Part 3 during the training process.

For each TDI Instructor program a separate instructor section has been written that will be used in conjunction with Part 1 of the Instructor Trainer manual. The Instructor Trainer will be directed when to refer to Part 1, otherwise follow the specific instructor training section listed in Part 3. A PowerPoint® presentation has been developed to complement the trainer manual to supplement the training process.

Naturally, this information may be supplemented by the instructor based upon past experience combined with local customs and the local diving environment.

Objectives

The object of this program is to:

- Introduce the instructor candidate to TDI
- Introduce the candidate to all of the programs they will be qualified to teach
- Introduce the candidate to all of the instructor materials and student materials for those programs they will be teaching
- Demonstrate how to use all of the support materials to teach those programs
- Teach the instructor “How to Conduct” each of those programs, listing helpful hints on “How to teach” academics as well as possible problems they may experience in the pool /confined water and open water sessions and ways to handle those problems
- Demonstrate how to register and certify TDI Divers and Leadership levels







Scheduling Options

- ▶ Compressed
- ▶ Apprentice
- ▶ Multiple Meetings
- ▶ Additional Training Activities

There are various options when scheduling a TDI Instructor course. How you arrange the schedule may depend on whether the candidates are local, traveling from out of town, and how quickly they would like to complete their training. Below are some scheduling options.

Compressed

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The compressed method is typically a week long program that will suit those wishing to complete their training in a short amount of time. Individuals who must travel to take the course or those who must take time off from their full-time employment may appreciate the format of the compressed program

Apprentice

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By far the best way to learn is to watch, assist, and participate in the training of new divers. This method will take a longer period of time than the compressed method but the instructor candidate will have the advantage of working with actual divers under actual situations that will allow them to see and deal with actual problem situations. They will also get to see the excitement and joy a student has as they accomplish each step towards their certification.

Most TDI Instructor programs are taught using the apprentice format.

Multiple Meetings

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The multiple meetings method involves recurring meetings over a period of time. The meetings typically occur once or twice per week, such as Tuesdays and Thursday evenings, and usually last no more than three hours each. The amount of information presented at these meetings is more limited than with other methods. The meeting schedule is usually worked out between all of the instructor candidates and IT to accommodate everyone's schedule. Be careful not to allow too much time between meetings as the candidates may find it hard to recall previous information. The drawback to using this method is it can take a long time to complete the program. A combination of the multiple meetings and apprentice programs works well. The instructor candidates can learn a little and then go apply it as they assist an instructor.



Additional Training Activities

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In addition to the academic material addressed in the student manual and this instructor guide, the TDI Instructor Course includes required training activities in pool / confined water and open water, as well as the specific performance requirements for all TDI Instructor candidates. Accordingly, the reader is directed to the current TDI Standards for additional information regarding the requirements for the TDI Instructor certification. Once a TDI Instructor has completed their initial TDI Instructor course they will not be required to complete the entire program again; they simply will focus on the next course they are qualifying to teach with emphasis on the academic presentations and in-water presentations.







Teaching the TDI Instructor Courses

- ▶ Prerequisites to start a TDI Instructor program

Chapter 2 discusses the prerequisites and requirements for becoming a TDI Instructor or a TDI Non-Diving Instructor. Should a candidate have questions or concerns, now is the time to address them rather than at the end of the program.

Prerequisites to start a TDI Instructor program include:

- Minimum age 18
- Certified diver for the program they wish to teach
- Provide proof of 100 logged dives completed in a number of different environments with varying depths
- Provide proof of a minimum number of dives or hours underwater depending on the specific course

- Certified as an SDI Instructor or the equivalent
- Hold a current CPR and first aid certification (i.e. current and valid CPROX1st certification)
- Current medical examination for diving
- Possess the minimum instructional equipment as defined in the leadership standards

NOTE: This is a very generic outline of TDI Instructor program prerequisites. As there are many different TDI Programs, the prerequisites will vary. Check the current TDI Training standards for the program you are teaching for these prerequisites.





Non-Diving Specialty Instructor Program

- ▶ Welcome and Course Overview
- ▶ The TDI Instructor
- ▶ Dive Leader Risk Management
- ▶ Methods of Instruction
- ▶ Business Side of Diving
- ▶ Teaching the TDI Non-Diving Specialty Diver Program

The TDI Non-Diving Specialty Instructor Program may be taught to non-diving individuals who have the experience in a non-diving specialty area such as visual inspection procedures (VIP). This may be the only TDI Instructor program they complete. Since this is the first program they are completing through TDI, more time will need to be spent on the core topics listed below. Once an instructor has completed their initial TDI Non-Diving Specialty program, or any initial TDI Instructor program, they will need only to focus on the course specific content for future programs.

Objectives

The object of this program is to:

- Introduce the instructor to TDI
- Introduce the candidate to the TDI Instructor Guide and Student materials

- Demonstrate how to use the TDI Non-Diving Specialty materials to train a new diver
- Teach the instructor “How to Conduct” the TDI Non-Diving Specialty (Specific) Non-Diving program
- Demonstrate how to register and certify a new Non-Diving Specialty certification card

Prerequisites for TDI Non-Diving Specialty Instructor Program
See the current TDI Non-Diving Specialty Instructor standards for the prerequisites and requirements for this program.

Materials Required

Teaching any program with outdated materials is just asking for problems. The trainer must confirm that their materials are current and each instructor has the current materials with which to teach the program.

Instructor Trainer

Due to the fact that there are no specific training materials for the TDI Non-Diving Specialty course, ITs need to use materials such as the TDI Instructor Guide for lesson plans on how to teach someone to teach.

Instructor Candidate

- TDI Standards & Procedures
- Specific Instructor materials for the course they are learning to teach, i.e. Nitrox Gas Blender Instructor Guide.

Note: Prior to beginning the program the instructor candidate should review all instructor and diver materials and complete all knowledge quests and final exams so they are completely familiar with the subject matter and the support materials to teach the TDI Non-Diving Specialty program.



The topics to be covered are:

- Welcome and Course Orientation
- The TDI Instructor*
- Dive Leader Risk Management*
- Methods of Instruction*
- Business Side of Diving*
- Courses a TDI Instructor Can Teach Non-Diving Specialty

* Core Topics: These core topics will be found in Part One of this manual; IT Information.

Welcome and Course Overview

.....

Paperwork

- Instructor Registration Form
 - Personal Information
- Liability Release
- Medical Statement

Let's Get to Know Each Other

Professional Staff

Participants

- Your name?
- What type of technical diving experience do you have?
- Which technical diving activities interest you the most?
- Why are you interested in becoming a technical instructor?



About This Program

Course Objective

- Develop the appropriate knowledge and skills that are expected of every dive professional

Subject Areas

- The TDI Instructor
- Dive Leader Risk Management
- Methods of Instruction
- Business Side of Diving

Structure and Schedule

- Independent Study
- Classroom Presentations

Required Equipment

- Items you'll need for this course

Any Questions?

The TDI Instructor

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 2-The SDI/TDI/ERDI Instructor



Dive Leader Risk Management

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 3-Dive Leader Risk Management

Methods of Instruction

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 4-Methods of Instruction

Business Side of Diving

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 5-Business of Diving

Teaching the TDI Non-Diving Specialty Diver Program

.....

- Program overview
 - Academic session
 - During the theory development portion of the course candidates should be taught the course specific theory and how to convey that theory to future students. Candidates should also be shown how to prepare classroom sessions and review administrative tasks.



- Practical Session
 - The practical portion of the course is the ‘hands on’ time. This is when candidates would demonstrate their ability to show a student how to analyze and log a nitrox cylinder, as an example.
- Materials
 - Review all student materials to make sure the instructor candidate is familiar with all materials and how they are supported by the instructor materials.
 - Materials
 - Online
 - Printed
- Required paperwork
 - Discuss in detail how the instructor should complete the required paperwork
 - The instructor candidate must be familiar with all forms and be able to answer any question a student may have regarding the completion of those forms
 - Training Folder
 - Waiver
 - Medical Questionnaire
- Complete a thorough review of the appropriate TDI Instructor manual including:
 - How to conduct academic sessions:
 - Cover helpful hints on how to teach more involved subjects



- Practical Session
 - Helpful hints on:
 - How to teach skills
 - Conducting an update / skill evaluation
 - Possible problems an instructor may experience
 - How to deal with those problems

Below is a sample of how to structure a TDI Non-Diving Instructor course, using nitrox gas blending as an example.

List of tips on how to teach various aspects of this program include:

Analyzing cylinders

Reading tables

PO2

NOAA 32 and 36

Verifying cylinder content

Determining MOD

List of academics:

History of gas blending

Using gas blending tables and software

Use of oxygen analyzers



Scheduling Options for this program

Overview

The TDI Non-Diving Specialty Instructor program does not require dives for the instructor to be certified. Therefore, the instructor program may be taught entirely in a classroom setting. For the practical session, you may also use the service area or fill station if the course requires.

Classroom

You will need several different cylinders for the practical session so the instructor candidate can practice filling and using the analyzers and become proficient in the use of the analyzer. Candidates are required to perform and pass an academic presentation.

Knowledge Quest Review Questions if applicable

No instructor level Knowledge Quest is available for this program, although the candidate should complete the user level Knowledge Quest so they are familiar with the information.

Final Exam

No instructor level final exam is available for this program, although the candidate should complete the user level final exam so they are familiar with the information.





Intro to Tech Instructor Program

- ▶ Welcome and Course Overview
- ▶ The TDI Instructor
- ▶ Dive Leader Risk Management
- ▶ Methods of Instruction
- ▶ Business Side of Diving
- ▶ Teaching the TDI Intro to Tech Diver Program

The TDI Intro to Tech Instructor Program bridges the gap between sport diving and technical diving worlds, and may be the first TDI Leadership level an instructor completes. Any SDI Instructor who is certified as a TDI Advanced Nitrox and Decompression Procedures diver or a TDI Advanced Nitrox and Decompression Procedures Instructor may qualify to attend the TDI Intro to Tech Instructor program. If this is the first program they are completing through TDI, more time will need to be spent on the core topics listed below. Once an instructor has completed their initial TDI Intro to Tech Instructor program, or any initial TDI Instructor program, they will need only to focus on the course specific content for future programs.

Objectives

The object of this program is to:

- Introduce the instructor to TDI
- Introduce the candidate to the TDI Instructor Guide and Student materials
- Demonstrate how to use the TDI Intro to Tech materials to train a new diver
- Teach the instructor “How to Conduct” the TDI Intro to Tech Diver program
- Demonstrate how to register and certify a new TDI Intro to Tech diver

Prerequisites for TDI Intro to Tech Instructor Program

See the current TDI Intro to Tech Instructor standards for the prerequisites and requirements for this program.

Materials Required

Teaching any program with outdated materials is just asking for problems. The trainer must confirm that their materials are current and each instructor has the current materials with which to teach the program.

Instructor Trainer

- TDI Intro to Tech Diver Manual
- TDI Intro to Tech Diver Knowledge Quest
- TDI Intro to Tech Instructor Guide
- TDI Intro to Tech PowerPoint Presentation
- TDI Instructor Trainer Manual



Instructor Candidate

- TDI Intro to Tech Diver Manual
- TDI Intro to Tech Diver Knowledge Quest
- TDI Intro to Tech Instructor Guide
- TDI Intro to Tech PowerPoint Presentation®

Note: Prior to beginning the program the instructor candidate should review all instructor and diver materials and complete all knowledge quests and final exams so they are completely familiar with the subject matter and the support materials to teach the TDI Intro to Tech Diver program.

The topics to be covered are:

- Welcome and Course Orientation
- The TDI Instructor*
- Dive Leader Risk Management*
- Methods of Instruction*
- Business Side of Diving*
- Courses a TDI Instructor Can Teach Intro to Tech

*Core Topics: These core topics will be found in Part One of this manual; IT Information.



Welcome and Course Overview

.....

Paperwork

- Instructor Registration Form
 - Personal Information
- Liability Release
- Medical Statement

Let's Get to Know Each Other

Professional Staff

Participants

- Your name?
- What type of technical diving experience do you have?
- Which technical diving activities interest you the most?
- Why are you interested in becoming a technical instructor?

About This Program

Course Objective

- Develop the appropriate knowledge and skills that are expected of every dive professional



Subject Areas

- The TDI Instructor
- Dive Leader Risk Management
- Methods of Instruction
- Business Side of Diving

Structure and Schedule

- Independent Study
- Classroom Presentations
- Confined Water Training
- Open Water Training

Required Equipment

- Items you'll need for this course

Any Questions?

The TDI Instructor

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 2-The SDI/TDI/ERDI Instructor

Dive Leader Risk Management

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 3-Dive Leader Risk Management



Methods of Instruction

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 4-Methods of Instruction

Business Side of Diving

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 5-Business of Diving

Teaching the TDI Intro to Tech Diver Program

.....

- Program overview
 - Classroom requirements

In the classroom, students should become familiar with:

- basic equipment
- physics and physiology as they pertain to technical diving
- use of tech diving formulas

- Pool / confined water requirements

- The Intro to Tech Instructor must be well versed in available technical diving equipment so they can make helpful suggestions to student divers in light of their changing needs as they progress into the technical diving field.

Although a pool/confined water session is not required, an instructor may take this opportunity to conduct an update with divers who



have been inactive for a period of time, or conduct a skill evaluation to help the students become better divers. The pool / confined water session would be an opportune time to expose the students to the equipment they will be using in the open water under a controlled environment.

- Open Water Requirements
 - During the open water dives the students will be performing and mastering the various skills that are used in technical diving such as: weight check, fine tuning buoyancy, s-drill, deploy a surface marker and a valve drill if double cylinders are used.
- Materials
 - Review all diver materials to make sure the instructor candidate is familiar with all diver materials and how they are supported by the instructor materials.
 - Diver Materials
 - Online
 - Printed
 - Required paperwork
 - Discuss in detail how the instructor should complete the required paperwork
 - The instructor candidate must be familiar with all forms and be able to answer any question a diver may have regarding the completion of those forms
 - Diver Training Folder
 - Waiver
 - Medical Questionnaire
- Complete a thorough review of the appropriate TDI Instructor manual including:
 - How to conduct academic sessions:
 - Cover helpful hints on how to teach more involved subjects



- Pool/ Confined water sessions (if one is conducted)
 - Helpful hints on:
 - How to teach skills
 - Conducting an update / skill evaluation
 - Possible problems an instructor may experience
 - How to deal with those problems
 - Open water sessions
 - Helpful hints on:
 - How to conduct skills in open water vs pool/confined
 - Possible problems an instructor may experience in open water
 - How to deal with those problems

List of tips on how to teach various aspects of this program include:

This information must be simplistic in nature. Try to educate the students on the various aspects of technical diving: mixed gas, overhead environment and closed circuit rebreathers.

The students at this point may not know for sure which direction they would like to take with their technical diving experiences.

List of academic / pool-confined water / open water topics for candidate to present:

Formula work

Equipment considerations for technical diving

Decompression Options

Dive Planning



Scheduling Options for this program

Overview

The TDI Intro to Tech Instructor program should be comprised of at least one academic session, an optional pool / confined water session and four open water dives. The classroom session will last approximately 1 full day with an optional half day for a pool / confined water session and two days at the open water to complete the dives.

Classroom

You will need several different types of equipment so the instructor candidate can practice assembly and disassembly on different configuration. They need to become proficient so that they can explain the various configurations to their students. Candidates are required to perform and pass an academic presentation.

Dives

The four required dives must be scheduled over two separate days.

Knowledge Quest Review Questions if applicable

No instructor level Knowledge Quest is available for this program, although the candidate should complete the diver level Knowledge Quest so they are familiar with the information.

Final Exam

No instructor level final exam is available for this program, although the candidate should complete the diver level final exam so they are familiar with the information.







Nitrox Instructor Program

- ▶ Welcome and Course Overview
- ▶ The TDI Instructor
- ▶ Dive Leader Risk Management
- ▶ Methods of Instruction
- ▶ Business Side of Diving
- ▶ Teaching the TDI Nitrox Diver Program

The TDI Nitrox Instructor Program is typically the first TDI Leadership level an instructor will complete. Any instructor from any agency may be qualified to attend the TDI Nitrox Instructor program. Since this is the first program they are completing through TDI more time will need to be spent on the core topics listed below. Once an instructor has completed their initial TDI Nitrox program, or any initial TDI Instructor program, they will need only to focus on the course specific content for future programs.

Objectives

The object of this program is to:

- Introduce the instructor to TDI
- Introduce the candidate to the TDI Instructor Guide and Student materials
- Demonstrate how to use the TDI Nitrox materials to train a new nitrox diver

- Teach the instructor “How to Conduct” the TDI Nitrox Diver program
- Demonstrate how to register and certify a new Nitrox diver

Prerequisites for TDI Nitrox Instructor Program

See the current TDI Nitrox Instructor standards for the prerequisites and requirements for this program.

Materials Required

Teaching any program with outdated materials is just asking for problems. The trainer must confirm that their materials are current and each instructor has the current materials with which to teach the program.

Instructor Trainer

- TDI Nitrox Diver Manual
- TDI Nitrox Diver Knowledge Quest
- TDI Nitrox Instructor Guide
- TDI Nitrox PowerPoint Presentation®
- TDI Instructor Trainer Manual

Instructor Candidate

- TDI Nitrox Diver Manual
- TDI Nitrox Diver Knowledge Quest
- TDI Nitrox Instructor Guide
- TDI Nitrox PowerPoint Presentation®

Note: Prior to beginning the program the instructor candidate should review all instructor and diver materials and complete all knowledge quests and



final exams so they are completely familiar with the subject matter and the support materials to teach the TDI Nitrox Diver program.

The topics to be covered are:

- Welcome and Course Orientation
- The TDI Instructor*
- Dive Leader Risk Management*
- Methods of Instruction*
- Business Side of Diving*
- Courses a TDI Instructor Can Teach Nitrox

*Core Topics: These core topics will be found in Part One of this manual; IT Information.

Welcome and Course Overview

.....

Paperwork

- Instructor Registration Form
- Personal Information
- Liability Release
- Medical Statement

Let's Get to Know Each Other

Professional Staff



Participants

- Your name?
- What type of technical diving experience do you have?
- Which technical diving activities interest you the most?
- Why are you interested in becoming a technical instructor?

About This Program

Course Objective

- Develop the appropriate knowledge and skills that are expected of every dive professional

Subject Areas

- The TDI Instructor
- Dive Leader Risk Management
- Methods of Instruction
- Business Side of Diving

Structure and Schedule

- Independent Study
- Classroom Presentations
- Confined Water Training
- Open Water Training

Required Equipment

- Items you'll need for this course

Any Questions?



The TDI Instructor

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 2-The SDI/TDI/ERDI Instructor

Dive Leader Risk Management

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 3-Dive Leader Risk Management

Methods of Instruction

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 4-Methods of Instruction

Business Side of Diving

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 5-Business of Diving



Teaching the TDI Nitrox Diver Program

.....

- Program overview
 - Classroom requirements
 - Students are required to become familiar with the use of an analyzer, use of dive tables, use of dive planning software, determining best mix / MOD / PO₂, and cylinder labeling during the Nitrox diver program. An Instructor must be able to demonstrate proper use of an analyzer and logging procedures as well as answer any questions students may have regarding the analyzer.
 - Pool / confined water requirements
 - While a pool / confined water session is not required, an instructor may take this opportunity to conduct an update with divers who have been inactive for a period of time, or conduct a skill evaluation to help the students become better divers
 - Open Water Requirements
 - Dives are not required, but the instructor may take this opportunity to have the divers analyze, verify cylinder content, log cylinder content and dive with various nitrox mixtures under the supervision of an instructor.
- Materials
 - Review all diver materials to make sure the instructor candidate is familiar with all diver materials and how they are supported by the instructor materials.
 - Diver Materials
 - Online
 - Printed



- Required paperwork
 - Discuss in detail how the instructor should complete the required paperwork
 - The instructor candidate must be familiar with all forms and be able to answer any question a diver may have regarding the completion of those forms
 - Diver Training Folder
 - Waiver
 - Medical Questionnaire
- Complete a thorough review of the appropriate TDI Instructor manual including:
 - How to conduct:
 - Academic sessions
 - Cover helpful hints on how to teach more involved subjects
 - Pool/ Confined water sessions (if one is conducted)
 - Helpful hints on:
 - How to teach skills
 - Conducting an update / skill evaluation
 - Possible problems an instructor may experience
 - How to deal with those problems
 - Open water sessions (if one is conducted)
 - Helpful hints on:
 - How to conduct skills in open water vs pool/confined
 - Possible problems an instructor may experience in open water
 - How to deal with those problems



List of tips on how to teach various aspects of this program include:

Analyzing cylinders

Reading tables

EAD

EAN

Verifying and logging cylinder content

Cylinder labeling

List of academic / pool-confined water / open water topics for candidate to present:

History of EAN

Using Dive Tables (EAD and EAN Tables)

Advantages and Disadvantages of Nitrox

Use of oxygen analyzers

Logging Nitrox mixtures

Labeling of Nitrox cylinders

Scheduling Options for this program

Overview

The TDI Nitrox Instructor program does not require dives for the instructor to be certified. Therefore, the instructor program may be taught entirely in a classroom setting.



Classroom

You will need several different cylinders of various nitrox mixtures so the instructor candidate can practice the use of the analyzers and become proficient in the use of the analyzer. Candidates are required to perform and pass an academic presentation.

Dives

If dives are not included in the instructor program, the course may be completed in one day. If dives are to be completed for the instructor program, two days is typically planned. It is possible to conduct the academic review at the open water site along with the dives. In that case one day will be adequate for the instructor program.

Knowledge Quest Review Questions if applicable

No instructor level Knowledge Quest is available for this program, although the candidate should complete the diver level Knowledge Quest so they are familiar with the information.

Final Exam

No instructor level final exam is available for this program, although the candidate should complete the diver level final exam so they are familiar with the information.







Advanced Nitrox Instructor Program

- ▶ Welcome and Course Overview
- ▶ The TDI Instructor
- ▶ Dive Leader Risk Management
- ▶ Methods of Instruction
- ▶ Business Side of Diving
- ▶ Teaching the TDI Advanced Nitrox Diver Program

To become qualified to teach the TDI Advanced Nitrox Instructor Program an instructor must meet all of the prerequisites listed in the most recent version of the TDI Standards. They may be a current TDI Nitrox Instructor upgrading their instructor ratings, or crossing over from another agency that is recognized by TDI. If they are crossing over this will be the first program they will complete through TDI as an instructor and therefore more time will need to be spent on the core topics listed below. Once an instructor has completed their initial TDI Advanced Nitrox program, or any initial TDI Instructor program, they will need only to focus on the course specific content for future programs. This program may be taught in conjunction with either the TDI Intro to Tech Instructor or the TDI Decompression Procedures Instructor program provided prerequisites are met for the combined levels.

Objectives

The object of this program is to:

- Introduce the instructor to TDI
- Introduce the candidate to the TDI Instructor Guide and Student materials
- Demonstrate how to use the TDI Advanced Nitrox materials to train a new diver
- Teach the instructor “How to Conduct” the TDI Advanced Nitrox Diver program
- Demonstrate how to register and certify a new TDI Advanced Nitrox diver

Prerequisites for TDI Advanced Nitrox Instructor Program

See the current TDI Advanced Nitrox Instructor standards for the prerequisites and requirements for this program.

Materials Required

Teaching any program with outdated materials is just asking for problems. The trainer must confirm that their materials are current and each instructor has the current materials with which to teach the program.

Instructor Trainer

- TDI Advanced Nitrox Diver Manual
- TDI Advanced Nitrox Diver Knowledge Quest
- TDI Advanced Nitrox Instructor Guide
- TDI Advanced Nitrox PowerPoint Presentation®
- TDI Instructor Trainer Manual



Instructor Candidate

- TDI Advanced Nitrox Diver Manual
- TDI Advanced Nitrox Diver Knowledge Quest
- TDI Advanced Nitrox Instructor Guide
- TDI Advanced Nitrox PowerPoint Presentation®

Note: Prior to beginning the program the instructor candidate should review all instructor and diver materials and complete all knowledge quests and final exams so they are completely familiar with the subject matter and the support materials to teach the TDI Advanced Nitrox Diver program.

The topics to be covered are:

- Welcome and Course Orientation
- The TDI Instructor*
- Dive Leader Risk Management*
- Methods of Instruction*
- Business Side of Diving*
- Courses a TDI Instructor Can Teach Advanced Nitrox

*Core Topics: These core topics will be found in Part One of this manual; IT Information.

Welcome and Course Overview

.....

Paperwork

- Instructor Registration Form
- Personal Information
- Liability Release
- Medical Statement



Let's Get to Know Each Other

Professional Staff

Participants

- Your name?
- What type of technical diving experience do you have?
- Which technical diving activities interest you the most?
- Why are you interested in becoming a technical instructor?

About This Program

Course Objective

- Develop the appropriate knowledge and skills that are expected of every dive professional

Subject Areas

- The TDI Instructor
- Dive Leader Risk Management
- Methods of Instruction
- Business Side of Diving

Structure and Schedule

- Independent Study
- Classroom Presentations
- Confined Water Training
- Open Water Training



Required Equipment

- Items you'll need for this course

Any Questions?

The TDI Instructor

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 2-The SDI/TDI/ERDI Instructor

Dive Leader Risk Management

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 3-Dive Leader Risk Management

Methods of Instruction

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 4-Methods of Instruction

Business Side of Diving

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 5-Business of Diving



Teaching the TDI Advanced Nitrox Diver Program

.....

- Program overview

- Classroom requirements

- Students are required to become familiar with the use of breathing gasses that could contain up to 100% oxygen. Some of the skills and knowledge needed for this are: use of an oxygen analyzer, logging gasses mixes at fill stations and proper labeling of cylinders, to name a few. An Instructor must be able to demonstrate instructor level knowledge as well as answer any questions students may have regarding any subjects related to advanced nitrox. Additionally, the instructor must be well versed on the use of EAN mixtures in decompression diving and oxygen cleaning requirements for equipment that will be used with gas mixes in excess of 40% oxygen.

- Pool / confined water requirements

- While a pool / confined water session is not required, an instructor may take this opportunity to conduct an update with divers who have been inactive for a period of time, or conduct a skill evaluation to help the students become better divers. This is the ideal setting to conduct buoyancy skills, trim and equipment configuration if the advanced nitrox course is combined with decompression procedures.

- Open Water Requirements

- Depending on whether the program is taught by itself, or combined with either the Intro to Tech or Decompression Procedures program, a minimum of four dives are required. Check the current TDI standards for additional information. For the open water dives it is best to take divers progressively deeper and not hit the maximum training depth in the first dive or two.



- Materials
 - Review all diver materials to make sure the instructor candidate is familiar with all diver materials and how they are supported by the instructor materials.
 - Diver Materials
 - Online
 - Printed
- Required paperwork
 - Discuss in detail how the instructor should complete the required paperwork
 - The instructor candidate must be familiar with all forms and be able to answer any question a diver may have regarding the completion of those forms
 - Diver Training Folder
 - Waiver
 - Medical Questionnaire
- Complete a thorough review of the appropriate TDI Instructor manual including:
 - How to conduct:
 - Academic sessions
 - Cover helpful hints on how to teach more involved subjects
 - Pool/ Confined water sessions (if one is conducted)
 - Helpful hints on:
 - How to teach skills
 - Conducting an update / skill evaluation
 - Possible problems an instructor may experience



- How to deal with those problems
- Open water sessions
 - Helpful hints on:
 - How to conduct skills in open water vs pool/confined
 - Possible problems an instructor may experience in open water
 - How to deal with those problems

List of tips on how to teach various aspects of this program include:

Analyzing cylinders – have students analyze various cylinders both in volume and oxygen content. It can also be beneficial to slip in an air cylinder so divers understand the benefits of analyzing cylinders.

Logging cylinder content – each fill station will have a different procedure for a customer receiving a cylinder and they will require different information to be placed in their logbook. Prepare divers for these variations and let them know these variations may be due to regional differences or business practices and that arguing that this is not the way their normal dive center does it, will not help.

Verifying cylinder content – verifying cylinder content is the sole responsibility of the diver and divers should be told the importance of verifying once when they pick up the cylinder and again just before they dive.

Labeling cylinders – labeling cylinders is affected by regional laws and regulations, industry standard and personal preference. Divers should be prepared for all of these and what is required by law in their region. In some areas cylinder content labeling is as simple as a piece of tape with hand written O2 content and MOD while in others it is a hard tag with more information.



Reading tables

EAD

EAN

PO2

CNS

Oxygen cleaning for equipment use above 40% - since divers will be accustomed to diving nitrox and that there is no requirement for equipment to be O2 cleaned, this is a point that needs to be emphasized.

Use of oxygen for decompression diving – divers need to know the importance of calculating oxygen exposure during decompression. It is often that the diver only thinks of the bottom phase of their dive.

List of academic / pool-confined water / open water topics for candidate to present:

Equipment requirements less than 40% / more than 40%

Using Dive Tables (EAD, EAN, CNS, PO2 Tables)

Using EAN mixes for decompression

Use of oxygen analyzers

Cylinder labeling

Oxygen toxicity

Scheduling Options for this program

Courses can be scheduled with a one to one ratio, as a group or scheduled in conjunction with the TDI Decompression Procedures course. Each of these will require different time commitments and scheduling logistics. A course with one advanced nitrox diver will take less time than a combined advanced nitrox and decompression procedures course with a group.



Overview

The TDI Advanced Nitrox Instructor program is comprised of classroom sessions and open water dives. One day should be allotted for the academic session with two full days for the open water dives.

If this program is taught in conjunction with the TDI Intro to Tech Instructor program, two full days of classroom time and two days of diving will need to be completed. If this program is taught in conjunction with the TDI Decompression Procedures Instructor program, two full days of classroom time and three days of diving will need to be completed. There may be times when the course can be completed in less time but it is always good to allot an extra day or two for make-up time or weather.

Classroom

You will need several different cylinders of various Advanced Nitrox mixtures so the instructor candidate can demonstrate the use of the analyzers and become proficient in explaining the use of the analyzer. Candidates are required to perform and pass an academic presentation so ensure the classroom is also equipped with: whiteboards, projectors and screen as well as any other training aids that may be needed. Different types of equipment that will be oxygen cleaned should be available for the candidates to review.

Dives

Two days of diving should be scheduled if the program is taught by itself or in conjunction with an Intro to Teach Instructor program. If it is taught in conjunction with a Decompression Procedures Instructor program an additional day, for a total of 3 days, should be scheduled for the open water dives. It is always good practice to build in some extra time for dives so the instructor candidates can clear their schedule.



Knowledge Quest Review Questions if applicable

No instructor level Knowledge Quest is available for this program, although the candidate should complete the diver level Knowledge Quest so they are familiar with the information.

Final Exam

No instructor level final exam is available for this program, although the candidate should complete the diver level final exam so they are familiar with the information.







Decompression Procedures Instructor Program

- ▶ Welcome and Course Overview
- ▶ The TDI Instructor
- ▶ Dive Leader Risk Management
- ▶ Methods of Instruction
- ▶ Business Side of Diving
- ▶ Teaching the TDI Decompression Procedures Diver Program

A current TDI Advanced Nitrox Instructor or an instructor with an equivalent rating from other recognized agencies may be qualified to attend the TDI Decompression Procedures Instructor program. If this is the first program they are completing through TDI more time will need to be spent on the core topics listed below. Once an instructor has completed their initial TDI Decompression Procedures program, or any initial TDI Instructor program, they will need only to focus on the course specific content for future programs. This program may be taught in conjunction with other TDI Instructor programs such as: Advanced Nitrox, Advanced Wreck, or Extended Range provided all prerequisites are met.

Objectives

The object of this program is to:

- Introduce the instructor to TDI
- Introduce the candidate to the TDI Instructor Guide and Student materials
- Demonstrate how to use the TDI Decompression Procedures materials to train a new diver
- Teach the instructor “How to Conduct” the TDI Decompression Procedures Diver program
- Demonstrate how to register and certify a new Decompression Procedures diver

Prerequisites for TDI Decompression Procedures Instructor Program

See the current TDI Decompression Procedures Instructor standards for the prerequisites and requirements for this program.

Materials Required

Teaching any program with outdated materials is just asking for problems. The trainer must confirm that their materials are current and each instructor has the current materials with which to teach the program.

Instructor Trainer

- TDI Decompression Procedures Diver Manual
- TDI Decompression Procedures Diver Knowledge Quest
- TDI Decompression Procedures Instructor Guide
- TDI Decompression Procedures PowerPoint Presentation®
- TDI Instructor Trainer Manual



Instructor Candidate

- TDI Decompression Procedures Diver Manual
- TDI Decompression Procedures Diver Knowledge Quest
- TDI Decompression Procedures Instructor Guide
- TDI Decompression Procedures PowerPoint Presentation®

Note: Prior to beginning the program the instructor candidate should review all instructor and diver materials and complete all knowledge quests and final exams so they are completely familiar with the subject matter and the support materials to teach the TDI Decompression Procedures Diver program.

The topics to be covered are:

- Welcome and Course Orientation
- The TDI Instructor*
- Dive Leader Risk Management*
- Methods of Instruction*
- Business Side of Diving*
- Courses a TDI Instructor Can Teach Decompression Procedures

*Core Topics: These core topics will be found in Part One of this manual; IT Information.



Welcome and Course Overview

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Paperwork

- Instructor Registration Form
- Personal Information
- Liability Release
- Medical Statement

Let's Get to Know Each Other

Professional Staff

Participants

- Your name?
- What type of technical diving experience do you have?
- Which technical diving activities interest you the most?
- Why are you interested in becoming a technical instructor?

About This Program

Course Objective

- Develop the appropriate knowledge and skills that are expected of every dive professional

Subject Areas

- The TDI Instructor
- Dive Leader Risk Management



- Methods of Instruction
- Business Side of Diving

Structure and Schedule

- Independent Study
- Classroom Presentations
- Confined Water Training
- Open Water Training

Required Equipment

- Items you'll need for this course

Any Questions?

The TDI Instructor

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 2-The SDI/TDI/ERDI Instructor

Dive Leader Risk Management

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 3-Dive Leader Risk Management



Methods of Instruction

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 4-Methods of Instruction

Business Side of Diving

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 5-Business of Diving

Teaching the TDI Decompression Procedures Diver Program

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- Program overview
 - Classroom requirements
 - Students should be well versed in: the various equipment considerations, decompression planning (available software and manually using tables), decompression theory, as well as the use of various gas mixes for decompression diving, and differences between safety and decompression stops. Other important topics include: thermal considerations, omitted decompression and gas management.
 - Pool / confined water requirements
 - While a pool / confined water session is not required, an instructor may take this opportunity to conduct an update with divers who



have been inactive for a period of time, or conduct a skill evaluation to help the students become better divers. This is the ideal setting to conduct buoyancy skills, trim and equipment configuration. If the depth of the pool/confined water permits, this is also a great setting to introduce and practice lift bag drills.

- Open Water Requirements

- Four dives with a minimum of 100 minutes bottom time are required for the decompression diver level. If Advanced Nitrox is taught in conjunction with the Decompression Procedures diver program a minimum of 6 dives are required, though this is at the discretion of the instructor. If the diver has previously received certification as a TDI Advanced Wreck Diver 2 dives may count towards the total required dives. For the open water dives it is best to take divers progressively deeper and not hit the maximum training depth in the first dive or two. It is also best to perform simulated decompression prior to obligated decompression stops.

- Materials

- Review all diver materials to make sure the instructor candidate is familiar with all diver materials and how they are supported by the instructor materials.

- Diver Materials

- Online
- Printed

- Required paperwork

- Discuss in detail how the instructor should complete the required paperwork
- The instructor candidate must be familiar with all forms and be able to answer any question a diver may have regarding the completion of those forms

- Diver Training Folder



- Waiver
- Medical Questionnaire
- Complete a thorough review of the appropriate TDI Instructor manual including:
 - How to conduct:
 - Academic sessions
 - Cover helpful hints on how to teach more involved subjects
 - Pool/ Confined water sessions (if one is conducted)
 - Helpful hints on:
 - How to teach skills
 - Conducting an update / skill evaluation
 - Possible problems an instructor may experience
 - How to deal with those problems
 - Open water sessions
 - Helpful hints on:
 - How to conduct skills in open water vs pool/confined
 - Possible problems an instructor may experience in open water
 - How to deal with those problems

List of tips on how to teach various aspects of this program include:

Analyzing cylinders - have students analyze various cylinders both in volume and oxygen content. It can also be beneficial to slip in an air cylinder so divers understand the benefits of analyzing cylinders.

Logging cylinder content – each fill station will have a different pro-



cedure for a customer receiving a cylinder and they will require different information to be placed in their fill logbook. Prepare divers for these variations and let them know these variations may be due to regional differences or business practices and that arguing that this is not the way their normal dive center does it, will not help.

Verifying cylinder content – verifying cylinder content is the sole responsibility of the diver and divers should be told the importance of verifying once when they pick up the cylinder and again just before they dive.

Labeling cylinders – labeling cylinders is affected by regional laws and regulations, industry standard and personal preference. Divers should be prepared for all of these and what is required by law in their region. In some areas cylinder content labeling is as simple as a piece of tape with hand written O₂ content and MOD while in others it is a hard tag with more information. All cylinders should be labeled including primary cylinder(s), deco cylinder(s) and surface or hang cylinder if using one.

Reading tables

EAD

EAN

PO₂

CNS

Verifying cylinder content

List of academic / pool-confined water / open water topics for candidate to present:

History of EAN

Using Dive Tables (EAD and EAN, CNS, PO₂ Tables)

Advantages and Disadvantages of Decompression Procedures



Use of oxygen analyzers

Cylinder labeling

Oxygen toxicity

Scheduling Options for this program

Courses can be scheduled with a one to one ratio, as a group or scheduled in conjunction with other TDI courses. Each of these will require different time commitments and scheduling logistics. A course with one decompression procedures diver will take less time than if combined with another TDI course with a group.

Overview

The TDI Decompression Procedures Instructor program is comprised of classroom sessions and open water dives. One day should be allotted for the academic session with two full days for the open water dives.

If this program is taught with any of the other allowed instructor programs, two to three full days for the classroom should be scheduled and the appropriate amount of days for the open water dives if two dives per day are scheduled. There may be times when the course can be completed in less time but it is always good to allot an extra day or two for make-up time or weather.

Classroom

You will need various pieces of equipment normally used for decompression diving so the candidate can demonstrate different configuration possibilities. The instructor must be able to demonstrate to instructor level quality all academic topics in the current TDI Decompression Procedures standards.



Dives

Two days of diving should be scheduled if the program is taught by itself. If it is taught in conjunction with an Advanced Nitrox Instructor program an additional day should be scheduled. If it is taught in conjunction with any of the other accepted TDI Instructor programs, additional days will need to be scheduled for the open water dives considering two dives per day will be completed. It is always good practice to build in some extra time for dives so the instructor candidates can clear their schedule.

Knowledge Quest Review Questions if applicable

No instructor level Knowledge Quest is available for this program, although the candidate should complete the diver level Knowledge Quest so they are familiar with the information.

Final Exam

No instructor level final exam is available for this program, although the candidate should complete the diver level final exam so they are familiar with the information.







Extended Range Instructor Program

- ▶ Welcome and Course Overview
- ▶ The TDI Instructor
- ▶ Dive Leader Risk Management
- ▶ Methods of Instruction
- ▶ Business Side of Diving
- ▶ Teaching the TDI Extended Range Diver Program

The TDI Extended Range Instructor Program trains the instructor how to conduct the Extended Range Diver program allowing decompression dives, with depths up to 55 metres / 180 feet. Instructors from agencies recognized by TDI who meet the prerequisites may be qualified to attend the TDI Extended Range Instructor program. If this is the first program they are completing through TDI, more time will need to be spent on the core topics listed below. Once an instructor has completed their initial TDI Extended Range program, or any initial TDI Instructor program, they will need only to focus on the course specific content for future programs.

Objectives

The object of this program is to:

- Introduce the instructor to TDI
- Introduce the candidate to the TDI Instructor Guide and Student materials
- Demonstrate how to use the TDI Extended Range materials to train a new diver
- Teach the instructor “How to Conduct” the TDI Extended Range Diver program
- Demonstrate how to register and certify a new Extended Range diver

Prerequisites for TDI Extended Range Instructor Program

See the current TDI Extended Range Instructor standards for the prerequisites and requirements for this program.

Materials Required

Teaching any program with outdated materials is just asking for problems. The trainer must confirm that their materials are current and each instructor has the current materials with which to teach the program.

Instructor Trainer

- TDI Extended Range / Trimix Diver Manual
- TDI Extended Range / Trimix Diver Knowledge Quest
- TDI Extended Range / Trimix Instructor Guide
- TDI Extended Range / Trimix PowerPoint Presentation®
- TDI Instructor Trainer Manual



Instructor Candidate

- TDI Extended Range / Trimix Diver Manual
- TDI Extended Range / Trimix Diver Knowledge Quest
- TDI Extended Range / Trimix Instructor Guide
- TDI Extended Range / Trimix PowerPoint Presentation®

Note: Prior to beginning the program the instructor candidate should review all instructor and diver materials and complete all knowledge quests and final exams so they are completely familiar with the subject matter and the support materials to teach the TDI Extended Range Diver program.

The topics to be covered are:

- Welcome and Course Orientation
- The TDI Instructor*
- Dive Leader Risk Management*
- Methods of Instruction*
- Business Side of Diving*
- Courses a TDI Instructor Can Teach Extended Range

*Core Topics: These core topics will be found in Part One of this manual; IT Information.



Welcome and Course Overview

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Paperwork

- Instructor Registration Form
 - Personal Information
- Liability Release
- Medical Statement

Let's Get to Know Each Other

Professional Staff

Participants

- Your name?
- What type of technical diving experience do you have?
- Which technical diving activities interest you the most?
- Why are you interested in becoming a technical instructor?

About This Program

Course Objective

- Develop the appropriate knowledge and skills that are expected of every dive professional



Subject Areas

- The TDI Instructor
- Dive Leader Risk Management
- Methods of Instruction
- Business Side of Diving

Structure and Schedule

- Independent Study
- Classroom Presentations
- Confined Water Training
- Open Water Training

Required Equipment

- Items you'll need for this course

Any Questions?

The TDI Instructor

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 2-The SDI/TDI/ERDI Instructor



Dive Leader Risk Management

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 3-Dive Leader Risk Management

Methods of Instruction

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 4-Methods of Instruction

Business Side of Diving

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 5-Business of Diving



Teaching the TDI Extended Range Diver Program

.....

- Program overview

- Classroom requirements

- Students are required to become familiar with: use of an analyzer, equipment configuration, decompression theory, decompression planning (available software and manually using tables) as well as the selection and use of various gas mixes for Extended Range diving. An Instructor must be able to demonstrate instructor level knowledge on all topics and skills in the current TDI Extended Range Diver standards.

- Pool / confined water requirements

- While a pool / confined water session is not required, an instructor may take this opportunity to conduct an update with divers who have been inactive for a period of time, or conduct a skill evaluation to help the students become better divers. This is the ideal setting to conduct buoyancy skills, trim and equipment configuration. If the depth of the pool/confined water permits, this is also a great setting to introduce and practice lift bag drills.

- Open Water Requirements

- Four dives with a minimum of 100 minutes of bottom time are required. If this program is conducted in conjunction with other allowed courses, the four dives plus the required number of dives from the other program are required. For the open water dives it is best to take divers progressively deeper and not hit the maximum training depth in the first dive or two. It is also best to perform simulated decompression prior to obligated decompression stops. This also allows an opportunity for the instructor to monitor narcotic effects on the diver.



- Materials
 - Review all diver materials to make sure the instructor candidate is familiar with all diver materials and how they are supported by the instructor materials.
 - Diver Materials
 - Online
 - Printed
- Required paperwork
 - Discuss in detail how the instructor should complete the required paperwork
 - The instructor candidate must be familiar with all forms and be able to answer any question a diver may have regarding the completion of those forms
 - Diver Training Folder
 - Waiver
 - Medical Questionnaire
- Complete a thorough review of the appropriate TDI Instructor manual including:
 - How to conduct:
 - Academic sessions
 - Cover helpful hints on how to teach more involved subjects
 - Pool/ Confined water sessions (if one is conducted)
 - Helpful hints on:
 - How to teach skills
 - Conducting an update / skill evaluation
 - Possible problems an instructor may experience
 - How to deal with those problems



- Open water sessions
 - Helpful hints on:
 - How to conduct skills in open water vs pool/confined
 - Possible problems an instructor may experience in open water
 - How to deal with those problems

List of tips on how to teach various aspects of this program include:

All topics from previous courses should be reiterated such as: analyzing and labeling cylinders, equipment configuration, etc

Decompression Option – use of higher percentages of oxygen vs. air, planning extended range dives using tables vs. dive planning software

Equipment Requirements – Since the extended range course is a progression from decompression procedures the additional equipment is minimal. Depending on the diver's air consumption rate, they may require higher volume cylinders for their primary gas and possibly a second decompression cylinder.

Dive Planning – as dive planning has been covered in previous courses, this can be conducted as a review. It should be emphasized to the divers that any increase in depth has an impact on gas consumption and this needs to be calculated into their dive planning.

List of academic / pool-confined water / open water topics for candidate to present:

History of extended range diving and why in some locations air is still the only available breathing gas.

Dive Planning

Using Dive Tables



Switching / isolating a regulator

Use of ascent reel and liftbag/SMB

Scheduling Options for this program

Courses can be scheduled with a one to one ratio, as a group or scheduled in conjunction with other TDI courses. Each of these will require different time commitments and scheduling logistics. A course with one extended range diver will take less time than if combined with another TDI course with a group.

Overview

The TDI Extended Range Instructor program is comprised of classroom sessions and open water dives. One day should be allotted for the academic session with two full days for the open water dives.

If this program is taught with any of the other allowed instructor programs, two to three full days for the classroom should be scheduled and the appropriate amount of days for the open water dives if two dives per day are scheduled. There may be times when the course can be completed in less time but it is always good to allot an extra day or two for make-up time or weather.

Classroom

You will need various pieces of equipment normally used for extended range diving so the candidate can demonstrate different configuration possibilities. The instructor must be able to demonstrate to instructor level quality all academic topics in the current TDI Extended Range standards.

Dives

Two days of diving should be scheduled if the program is taught by itself. If it is taught in conjunction with any of the other accepted TDI Instructor



programs, additional days will need to be scheduled for the open water dives considering two dives per day will be completed. It is always good practice to build in some extra time for dives so the instructor candidates can clear their schedule.

Knowledge Quest Review Questions if applicable

No instructor level Knowledge Quest is available for this program, although the candidate should complete the diver level Knowledge Quest so they are familiar with the information.

Final Exam

No instructor level final exam is available for this program, although the candidate should complete the diver level final exam so they are familiar with the information.







Advanced Wreck Instructor Program

- ▶ Welcome and Course Overview
- ▶ The TDI Instructor
- ▶ Dive Leader Risk Management
- ▶ Methods of Instruction
- ▶ Business Side of Diving
- ▶ Teaching the TDI Advanced Wreck Diver Program

The TDI Advanced Wreck Instructor Program trains the instructor how to conduct the Advanced Wreck program that allows penetration into underwater wrecks. Instructors from agencies recognized by TDI who meet the prerequisites may be qualified to attend the TDI Advanced Wreck Instructor program. If this is the first program they are completing through TDI, more time will need to be spent on the core topics listed below. Once an instructor has completed their initial TDI Advanced Wreck program, or any initial TDI Instructor program, they will need only to focus on the course specific content for future programs.

Objectives

The object of this program is to:

- Introduce the instructor to TDI
- Introduce the candidate to the TDI Instructor Guide and Student materials
- Demonstrate how to use the TDI Advanced Wreck materials to train a new diver
- Teach the instructor “How to Conduct” the TDI Advanced Wreck Diver program
- Demonstrate how to register and certify a new TDI Advanced Wreck diver

Prerequisites for TDI Advanced Wreck Instructor Program

See the current TDI Advanced Wreck Instructor standards for the prerequisites and requirements for this program.

Materials Required

Teaching any program with outdated materials is just asking for problems. The trainer must confirm that their materials are current and each instructor has the current materials with which to teach the program.

Instructor Trainer

- TDI Advanced Wreck Diver Manual
- TDI Advanced Wreck Diver Knowledge Quest
- TDI Advanced Wreck Instructor Guide
- TDI Advanced Wreck PowerPoint Presentation®
- TDI Instructor Trainer Manual



Instructor Candidate

- TDI Advanced Wreck Diver Manual
- TDI Advanced Wreck Diver Knowledge Quest
- TDI Advanced Wreck Instructor Guide
- TDI Advanced Wreck PowerPoint Presentation®

Note: Prior to beginning the program the instructor candidate should review all instructor and diver materials and complete all knowledge quests and final exams so they are completely familiar with the subject matter and the support materials to teach the TDI Advanced Wreck Diver program.

The topics to be covered are:

- Welcome and Course Orientation
- The TDI Instructor*
- Dive Leader Risk Management*
- Methods of Instruction*
- Business Side of Diving*
- Courses a TDI Instructor Can Teach Advanced Wreck

*Core Topics: These core topics will be found in Part One of this manual; IT Information.



Welcome and Course Overview

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Paperwork

- Instructor Registration Form
 - Personal Information
- Liability Release
- Medical Statement

Let's Get to Know Each Other

Professional Staff

Participants

- Your name?
- What type of technical diving experience do you have?
- Which technical diving activities interest you the most?
- Why are you interested in becoming a technical instructor?

About This Program

Course Objective

- Develop the appropriate knowledge and skills that are expected of every dive professional



Subject Areas

- The TDI Instructor
- Dive Leader Risk Management
- Methods of Instruction
- Business Side of Diving

Structure and Schedule

- Independent Study
- Classroom Presentations
- Confined Water Training
- Open Water Training

Required Equipment

- Items you'll need for this course

Any Questions?

The TDI Instructor

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 2-The SDI/TDI/ERDI Instructor



Dive Leader Risk Management

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 3-Dive Leader Risk Management

Methods of Instruction

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 4-Methods of Instruction

Business Side of Diving

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 5-Business of Diving



Teaching the TDI Advanced Wreck Diver Program

.....

- Program overview
 - Classroom requirements
 - Students are required to become familiar with: risk and hazards of overhead environments, the inability to make a direct ascent to the surface when in an overhead environment, use of a reel as a navigational tool. An Instructor must be able to demonstrate instructor level knowledge on all topics and skills in the current TDI Advanced Wreck Diver standards.
 - Pool / confined water requirements
 - While a pool / confined water session is not required, an instructor may take this opportunity to conduct an update with divers who have been inactive for a period of time, or conduct a skill evaluation to help the students become better divers. This is the ideal setting to conduct buoyancy skills, trim and equipment configuration. If the depth of the pool/confined water permits, this is also a great setting to introduce and practice lift bag drills, line drills and blacked out or no mask skills.
 - Open Water Requirements
 - Six dives with a minimum of 100 minutes of bottom time are required. If this program is conducted in conjunction with other allowed courses, the four dives plus the required number of dives from the other program are required. For the open water dives it is best to take divers progressively deeper into the wreck so they get a slower introduction to overhead diving. The first couple of dives can be started on the outside of the wreck so divers get a sense of how the wreck is oriented and entry and exit points. This also allows an opportunity for the instructor to monitor the comfort level and abilities of the diver.



- Materials
 - Review all diver materials to make sure the instructor candidate is familiar with all diver materials and how they are supported by the instructor materials.
 - Diver Materials
 - Online
 - Printed
- Required paperwork
 - Discuss in detail how the instructor should complete the required paperwork
 - The instructor candidate must be familiar with all forms and be able to answer any question a diver may have regarding the completion of those forms
 - Diver Training Folder
 - Waiver
 - Medical Questionnaire
- Complete a thorough review of the appropriate TDI Instructor manual including:
 - How to conduct:
 - Academic sessions
 - Cover helpful hints on how to teach more involved subjects
 - Pool/ Confined water sessions (if one is conducted)
 - Helpful hints on:
 - How to teach skills
 - Conducting an update / skill evaluation
 - Possible problems an instructor may experience



- How to deal with those problems
- Open water sessions
 - Helpful hints on:
 - How to conduct skills in open water vs pool/confined
 - Possible problems an instructor may experience in open water
 - How to deal with those problems

List of tips on how to teach various aspects of this program include:

Hazards of wreck diving – divers should have a clear understanding of the potential hazards when entering into a wreck such as: silt outs, percolation silt, line traps/hazards, lost line, lost buddy.

Equipment Requirements – because there may not be ambient light available, the importance of lights and back-up lights should be explained to divers. It is equally important to explain the need for more than one reel should the first one get fouled or the line cut.

Dive Planning – planning to dive a wreck is like no other dive planning. It normally starts with researching the wreck, how it got to where it is and what its function was while it was floating. Teaching divers the basic wreck research techniques makes them have a better appreciation for the wreck dives they will be doing. From there the divers can begin the normal emergency planning, buddy protocols and dive objective.

List of academic / pool-confined water / open water topics for candidate to present:

Equipment Considerations

Procedures

Hazards of wreck diving



Penetration lines

Research and locating

Contingency planning

Scheduling Options for this program

Courses can be scheduled with a one to one ratio, as a group or scheduled in conjunction with other TDI courses. Each of these will require different time commitments and scheduling logistics. A course with one advanced wreck diver will take less time than if combined with another TDI course with a group. Another logistical consideration is weather. As most wreck dives are conducted from boats, dives can get 'blown out' so alternate dates should be set ahead of time.

Overview

The TDI Advanced Wreck Instructor program is comprised of classroom sessions and open water dives. One day should be allotted for the academic session with three full days for the open water dives.

If this program is taught with any of the other allowed instructor programs, two to three full days for the classroom should be scheduled and the appropriate amount of days for the open water dives if two dives per day are scheduled. There may be times when the course can be completed in less time but it is always good to allot an extra day or two for make-up time or weather.

Classroom

You will need various pieces of equipment normally used for advanced wreck diving as well as some research papers on wrecks that you may be diving. You can have the candidates conduct the research on the wrecks and let them bring the information and present it. The instructor must be able to demonstrate to instructor level quality all academic topics in the current TDI Advanced Wreck Diver standards.



Dives

Three days of diving should be scheduled if the program is taught by itself. If it is taught in conjunction with any of the other accepted TDI Instructor programs, additional days will need to be scheduled for the open water dives considering two dives per day will be completed. It is always good practice to build in some extra time for dives so the instructor candidates can clear their schedule.

Knowledge Quest Review Questions if applicable

No instructor level Knowledge Quest is available for this program, although the candidate should complete the diver level Knowledge Quest so they are familiar with the information.

Final Exam

No instructor level final exam is available for this program, although the candidate should complete the diver level final exam so they are familiar with the information.







Trimix Instructor Program

- ▶ Welcome and Course Overview
- ▶ The TDI Instructor
- ▶ Dive Leader Risk Management
- ▶ Methods of Instruction
- ▶ Business Side of Diving
- ▶ Teaching the TDI Trimix Diver Program

The TDI Trimix Instructor Program is typically the first TDI Leadership level an instructor will complete that involves gas mixtures other than Nitrox. Any instructor from any agency who meets the prerequisites may be qualified to attend the TDI Trimix Instructor program. If this is the first program they are completing through TDI more time will need to be spent on the core topics listed below. Once an instructor has completed their initial TDI Trimix program, or any initial TDI Instructor program, they will need only to focus on the course specific content for future programs.

Objectives

The object of this program is to:

- Introduce the instructor to TDI
- Introduce the candidate to the TDI Instructor Guide and Student materials
- Demonstrate how to use the TDI Trimix materials to train a new diver
- Teach the instructor “How to Conduct” the TDI Trimix Diver program
- Demonstrate how to register and certify a new Trimix diver

Prerequisites for TDI Trimix Instructor Program

See the current TDI Trimix Instructor standards for the prerequisites and requirements for this program.

Materials Required

Teaching any program with outdated materials is just asking for problems. The trainer must confirm that their materials are current and each instructor has the current materials with which to teach the program.

Instructor Trainer

- TDI Extended Range / Trimix Diver Manual
- TDI Extended Range / Trimix Diver Knowledge Quest
- TDI Extended Range / Trimix Instructor Guide
- TDI Extended Range / Trimix PowerPoint Presentation®
- TDI Instructor Trainer Manual



Instructor Candidate

- TDI Extended Range / Trimix Diver Manual
- TDI Extended Range / Trimix Diver Knowledge Quest
- TDI Extended Range / Trimix Instructor Guide
- TDI Extended Range / Trimix PowerPoint Presentation®

Note: Prior to beginning the program the instructor candidate should review all instructor and diver materials and complete all knowledge quests and final exams so they are completely familiar with the subject matter and the support materials to teach the TDI Trimix Diver program.

The topics to be covered are:

- Welcome and Course Orientation
- The TDI Instructor*
- Dive Leader Risk Management*
- Methods of Instruction*
- Business Side of Diving*
- Courses a TDI Trimix Instructor Can Teach

*Core Topics: These core topics will be found in Part One of this manual; IT Information.



Welcome and Course Overview

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Paperwork

- Instructor Registration Form
- Personal Information
- Liability Release
- Medical Statement

Let's Get to Know Each Other

Professional Staff

Participants

- Your name?
- What type of technical diving experience do you have?
- Which technical diving activities interest you the most?
- Why are you interested in becoming a technical instructor?

About This Program

Course Objective

- Develop the appropriate knowledge and skills that are expected of every dive professional



Subject Areas

- The TDI Instructor
- Dive Leader Risk Management
- Methods of Instruction
- Business Side of Diving

Structure and Schedule

- Independent Study
- Classroom Presentations
- Confined Water Training
- Open Water Training

Required Equipment

- Items you'll need for this course

Any Questions?

The TDI Instructor

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 2-The SDI/TDI/ERDI Instructor



Dive Leader Risk Management

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 3-Dive Leader Risk Management

Methods of Instruction

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 4-Methods of Instruction

Business Side of Diving

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 5-Business of Diving



Teaching the TDI Trimix Diver Program

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- Program overview
 - Classroom requirements
 - Students are required to become familiar with: use of an oxygen and helium analyzer, equipment configuration, decompression theory, decompression planning (available software and manually using tables), thermal considerations as well as the selection and use of various gas mixes for trimix diving. An Instructor must be able to demonstrate instructor level knowledge on all topics and skills in the current TDI Trimix Diver standards.
 - Pool / confined water requirements
 - While a pool / confined water session is not required, an instructor may take this opportunity to conduct an update with divers who have been inactive for a period of time, or conduct a skill evaluation to help the students become better divers. This is the ideal setting to conduct buoyancy skills, trim and equipment configuration. If the depth of the pool/confined water permits, this is also a great setting to introduce and practice lift bag drills and blacked out mask drills.
 - Open Water Requirements
 - Four dives with a minimum of 100 minutes of bottom time are required. If this program is conducted in conjunction with other allowed courses, the four dives plus the required number of dives from the other program are required. For the open water dives it is best to take divers progressively deeper and not hit the maximum training depth in the first dive or two. It is also best to perform simulated decompression prior to obligated decompression stops. This also allows an opportunity for the instructor to monitor the diver's performance, abilities and overall comfort.



- Materials
 - Review all diver materials to make sure the instructor candidate is familiar with all diver materials and how they are supported by the instructor materials.
 - Diver Materials
 - Online
 - Printed
- Required paperwork
 - Discuss in detail how the instructor should complete the required paperwork
 - The instructor candidate must be familiar with all forms and be able to answer any question a diver may have regarding the completion of those forms
 - Diver Training Folder
 - Waiver
 - Medical Questionnaire
- Complete a thorough review of the appropriate TDI Instructor manual including:
 - How to conduct:
 - Academic sessions
 - Cover helpful hints on how to teach more involved subjects
 - Pool/Confined water sessions (if one is conducted)
 - Helpful hints on:
 - How to teach skills
 - Conducting an update / skill evaluation
 - Possible problems an instructor may experience
 - How to deal with those problems



- Open water sessions
 - Helpful hints on:
 - How to conduct skills in open water vs. pool/confined
 - Possible problems an instructor may experience in open water
 - How to deal with those problems

List of tips on how to teach various aspects of this program include:

All topics from previous courses should be reiterated such as: analyzing and labeling cylinders, equipment configuration, etc

Decompression Option – use of higher percentages of oxygen/nitrogen vs. oxygen/helium for decompression, planning trimix dives using tables vs. dive planning software

Equipment Requirements – Since the trimix course is a progression from decompression procedures the additional equipment is minimal. Depending on the diver's air consumption rate, they may require higher volume cylinders for their primary gas and possibly a second decompression cylinder.

Dive Planning – as dive planning has been covered in previous courses, this can be conducted as a review. It should be emphasized to the divers that any increase in depth has an impact on gas consumption and this needs to be calculated into their dive planning.

Ascent rates and thermal considerations

Reading tables

EAD

EAN

Verifying cylinder content

Labeling cylinders



List of academic / pool-confined water / open water topics for candidate to present:

- History of trimix diving
- Using Dive Tables (EAD and EAN Tables)
- Advantages and disadvantages of Trimix
- Use of oxygen and helium analyzers

Scheduling Options for this program

Courses can be scheduled with a one to one ratio, as a group or scheduled in conjunction with other TDI courses. Each of these will require different time commitments and scheduling logistics. A course with one trimix diver will take less time than if combined with another TDI course with a group.

Overview

The TDI Trimix Instructor program is comprised of classroom sessions and open water dives. One day should be allotted for the academic session with two full days for the open water dives.

If this program is taught with any of the other allowed instructor programs, two to three full days for the classroom should be scheduled and the appropriate amount of days for the open water dives if two dives per day are scheduled. There may be times when the course can be completed in less time but it is always good to allot an extra day or two for make-up time or weather.

Classroom

You will need various pieces of equipment normally used for trimix diving so the candidate can demonstrate: different configuration possibilities, and dive planning (via dive planning software or tables). The instructor must be able to demonstrate to instructor level quality all academic topics in the current TDI Trimix Diver standards.



Dives

Two days of diving should be scheduled if the program is taught by itself. If it is taught in conjunction with any of the other accepted TDI Instructor programs, additional days will need to be scheduled for the open water dives considering two dives per day will be completed. It is always good practice to build in some extra time for dives so the instructor candidates can clear their schedule. Due to the depth requirements of this course chosen dives sites should have the appropriate depth to meet standard requirements.

Knowledge Quest Review Questions if applicable

No instructor level Knowledge Quest is available for this program, although the candidate should complete the diver level Knowledge Quest so they are familiar with the information.

Final Exam

No instructor level final exam is available for this program, although the candidate should complete the diver level final exam so they are familiar with the information.







Advanced Trimix Instructor Program

- ▶ Welcome and Course Overview
- ▶ The TDI Instructor
- ▶ Dive Leader Risk Management
- ▶ Methods of Instruction
- ▶ Business Side of Diving
- ▶ Teaching the TDI Advanced Trimix Diver Program

The TDI Advanced Trimix Instructor Program builds on the Trimix Instructor rating, and allows dives to be made to depths of 100 metres / 330 feet. Any instructor from any agency who meets the prerequisites may be qualified to attend the TDI Advanced Trimix Instructor program. If this is the first program they are completing through TDI more time will need to be spent on the core topics listed below. Once an instructor has completed their initial TDI Advanced Trimix program, or any initial TDI Instructor program, they will need only to focus on the course specific content for future programs.

Objectives

The object of this program is to:

- Introduce the instructor to TDI
- Introduce the candidate to the TDI Instructor Guide and Student materials
- Demonstrate how to use the TDI Advanced Trimix materials to train a new diver
- Teach the instructor “How to Conduct” the TDI Advanced Trimix Diver program
- Demonstrate how to register and certify a new Advanced Trimix diver

Prerequisites for TDI Advanced Trimix Instructor Program

See the current TDI Advanced Trimix Instructor standards for the prerequisites and requirements for this program.

Materials Required

Teaching any program with outdated materials is just asking for problems. The trainer must confirm that their materials are current and each instructor has the current materials with which to teach the program.

Instructor Trainer

- TDI Advanced Trimix Diver Manual
- TDI Advanced Trimix Diver Knowledge Quest
- TDI Advanced Trimix Instructor Guide
- TDI Advanced Trimix PowerPoint Presentation®
- TDI Instructor Trainer Manual



Instructor Candidate

- TDI Advanced Trimix Diver Manual
- TDI Advanced Trimix Diver Knowledge Quest
- TDI Advanced Trimix Instructor Guide
- TDI Advanced Trimix PowerPoint Presentation®

Note: Prior to beginning the program the instructor candidate should review all instructor and diver materials and complete all knowledge quests and final exams so they are completely familiar with the subject matter and the support materials to teach the TDI Advanced Trimix Diver program.

The topics to be covered are:

- Welcome and Course Orientation
- The TDI Instructor*
- Dive Leader Risk Management*
- Methods of Instruction*
- Business Side of Diving*
- Courses a TDI Advanced Trimix Instructor Can Teach

*Core Topics: These core topics will be found in Part One of this manual; IT Information.



Welcome and Course Overview

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Paperwork

- Instructor Registration Form
 - Personal Information
- Liability Release
- Medical Statement

Let's Get to Know Each Other

Professional Staff

Participants

- Your name?
- What type of technical diving experience do you have?
- Which technical diving activities interest you the most?
- Why are you interested in becoming a technical instructor?

About This Program

Course Objective

- Develop the appropriate knowledge and skills that are expected of every dive professional



Subject Areas

- The TDI Instructor
- Dive Leader Risk Management
- Methods of Instruction
- Business Side of Diving

Structure and Schedule

- Independent Study
- Classroom Presentations
- Confined Water Training
- Open Water Training

Required Equipment

- Items you'll need for this course
- Any Questions?

The TDI Instructor

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 2-The SDI/TDI/ERDI Instructor



Dive Leader Risk Management

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 3-Dive Leader Risk Management

Methods of Instruction

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 4-Methods of Instruction

Business Side of Diving

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 5-Business of Diving

Teaching the TDI Advanced Trimix Diver Program

.....

- Program overview
 - Classroom requirements



- Students are required to become familiar with: use of an oxygen and helium analyzer, equipment configuration, decompression theory, decompression planning (available software and manually using tables), thermal considerations as well as the selection and use of various gas mixes for advanced trimix diving . An Instructor must be able to demonstrate instructor level knowledge on all topics and skills in the current TDI Advanced Trimix Diver standards. Divers also need to be aware of the increased depth and air consumption at these depths. Extra time should be spent calculating air consumption and the additional cylinders for transition and decompression.
- Pool / confined water requirements
 - While a pool / confined water session is not required, an instructor may take this opportunity to conduct an update with divers who have been inactive for a period of time, or conduct a skill evaluation to help the students become better divers. This is the ideal setting to conduct buoyancy skills, trim and equipment configuration. If the depth of the pool/confined water permits, this is also a great setting to introduce and practice lift bag drills and blacked out mask drills as well as practicing the carrying of additional cylinders.
- Open Water Requirements
 - Four dives with a minimum of 100 minutes of bottom time are required. If this program is conducted in conjunction with other allowed courses, the four dives plus the required number of dives from the other program are required. For the open water dives it is best to take divers progressively deeper and not hit the maximum training depth in the first dive or two. It is also best to perform simulated decompression prior to obligated decompression stops. This also allows an opportunity for the instructor to monitor the diver's performance, abilities and overall comfort.
- Materials
 - Review all diver materials to make sure the instructor candidate is familiar with all diver materials and how they are supported by the instructor materials.



- Diver Materials
 - Online
 - Printed
- Required paperwork
 - Discuss in detail how the instructor should complete the required paperwork
 - The instructor candidate must be familiar with all forms and be able to answer any question a diver may have regarding the completion of those forms
 - Diver Training Folder
 - Waiver
 - Medical Questionnaire
- Complete a thorough review of the appropriate TDI Instructor manual including:
 - How to conduct:
 - Academic sessions
 - Cover helpful hints on how to teach more involved subjects
 - Pool/ Confined water sessions (if one is conducted)
 - Helpful hints on:
 - How to teach skills
 - Conducting an update / skill evaluation
 - Possible problems an instructor may experience
 - How to deal with those problems
 - Open water sessions
 - Helpful hints on:
 - How to conduct skills in open water vs pool/confined



- Possible problems an instructor may experience in open water
- How to deal with those problems

List of tips on how to teach various aspects of this program include:

All topics from previous courses should be reiterated such as: analyzing and labeling cylinders, equipment configuration, etc

Decompression Option – use of higher percentages of oxygen/nitrogen vs. oxygen/helium for decompression, planning advanced trimix dives using tables vs. dive planning software

Equipment Requirements – Since the trimix course is a progression from decompression procedures the additional equipment is minimal. Depending on the diver's air consumption rate, they may require higher volume cylinders for their primary gas and possibly a second decompression cylinder.

Dive Planning – as dive planning has been covered in previous courses, this can be conducted as a review. It should be emphasized to the divers that any increase in depth has an impact on gas consumption and this needs to be calculated into their dive planning. Other considerations include: use of hypoxic breathing mixes, transition gas mixes and added decompression obligations due to increased depth.

Verifying and labeling cylinders – for advanced Trimix diving these two points become extremely critical as some cylinders may contain a gas that is not life sustaining at shallower depths or under heavier workloads.

Analyzing cylinders

Reading tables

EAD

EAN

Verifying cylinder content



List of academic / pool-confined water / open water topics for candidate to present:

- History of advanced Trimix diving
- Using Dive Tables and dive planning software
- Advantages and Disadvantages of Advanced Trimix
- Use of oxygen and helium analyzers

Scheduling Options for this program

Courses can be scheduled with a one to one ratio, as a group or scheduled in conjunction with other TDI courses. Each of these will require different time commitments and scheduling logistics. As potential advanced Trimix divers are limited, class sizes tend to be small so more time can be focused on the individual divers.

Overview

The TDI Advanced Trimix Instructor program is comprised of classroom sessions and open water dives. One day should be allotted for the academic session with two full days for the open water dives.

If this program is taught with any of the other allowed instructor programs, two to three full days for the classroom work should be scheduled and the appropriate amount of days for the open water dives if two dives per day are scheduled. There may be times when the course can be completed in less time but it is always good to allot an extra day or two for make-up time or weather.



Classroom

You will need various pieces of equipment normally used for advanced trimix diving so the candidate can demonstrate: different configuration possibilities, dive planning (via dive planning software or tables). The instructor must be able to demonstrate to instructor level quality all academic topics in the current TDI Advanced Trimix Diver standards.

Dives

Two days of diving should be scheduled if the program is taught by itself. If it is taught in conjunction with any of the other accepted TDI Instructor programs, additional days will need to be scheduled for the open water dives considering two dives per day will be completed. It is always good practice to build in some extra time for dives so the instructor candidates can clear their schedule. Due to the depth requirements of this course chosen dives sites should have the appropriate depth to meet standard requirements.

Knowledge Quest Review Questions if applicable

No instructor level Knowledge Quest is available for this program, although the candidate should complete the diver level Knowledge Quest so they are familiar with the information.

Final Exam

No instructor level final exam is available for this program, although the candidate should complete the diver level final exam so they are familiar with the information.







Helitrox Instructor Program

- ▶ Welcome and Course Overview
- ▶ The TDI Instructor
- ▶ Dive Leader Risk Management
- ▶ Methods of Instruction
- ▶ Business Side of Diving
- ▶ Teaching the TDI Helitrox Diver Program

The TDI Helitrox Instructor Program is typically an upgrade from the TDI Trimix instructor rating. Any instructor from any agency who meets the prerequisites may be qualified to attend the TDI Helitrox Instructor program. If this is the first program an instructor is completing through TDI more time will need to be spent on the core topics listed below. Once an instructor has completed their initial TDI Helitrox program, or any initial TDI Instructor program, they will need only to focus on the course specific content for future programs.

Objectives

The object of this program is to:

- Introduce the instructor to TDI
- Introduce the candidate to the TDI Instructor Guide and Student materials
- Demonstrate how to use the TDI materials to train a new helitrox diver
- Teach the instructor “How to Conduct” the TDI Helitrox Diver program
- Demonstrate how to register and certify a new Helitrox diver

Prerequisites for TDI Helitrox Instructor Program

See the current TDI Helitrox Instructor standards for the prerequisites and requirements for this program.

Materials Required

Teaching any program with outdated materials is just asking for problems. The trainer must confirm that their materials are current and each instructor has the current materials with which to teach the program.

Instructor Trainer

- TDI Decompression Procedures and Extended Range Diver Manuals
- TDI Decompression Procedures and Extended Range Knowledge Quests
- TDI Decompression Procedures and Extended Range Instructor Guides
- TDI Decompression Procedures and Extended Range PowerPoint Presentations®
- TDI Instructor Trainer Manual



Instructor Candidate

- TDI Decompression Procedures and Extended Range Diver Manuals
- TDI Decompression Procedures and Extended Range Diver Knowledge Quests
- TDI Decompression Procedures and Extended Range Instructor Guides
- TDI Decompression Procedures and Extended Range PowerPoint Presentation®

Note: Prior to beginning the program the instructor candidate should review all instructor and diver materials and complete all knowledge quests and final exams so they are completely familiar with the subject matter and the support materials to teach the TDI Helitrox Diver program.

The topics to be covered are:

- Welcome and Course Orientation
- The TDI Instructor*
- Dive Leader Risk Management*
- Methods of Instruction*
- Business Side of Diving*
- Courses a TDI Helitrox Instructor Can Teach

*Core Topics: These core topics will be found in Part One of this manual; IT Information.



Welcome and Course Overview

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Paperwork

- Instructor Registration Form
- Personal Information
- Liability Release
- Medical Statement

Let's Get to Know Each Other

Professional Staff

Participants

- Your name?
- What type of technical diving experience do you have?
- Which technical diving activities interest you the most?
- Why are you interested in becoming a technical instructor?

About This Program

Course Objective

- Develop the appropriate knowledge and skills that are expected of every dive professional



Subject Areas

- The TDI Instructor
- Dive Leader Risk Management
- Methods of Instruction
- Business Side of Diving

Structure and Schedule

- Independent Study
- Classroom Presentations
- Confined Water Training
- Open Water Training

Required Equipment

- Items you'll need for this course

Any Questions?

The TDI Instructor

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 2-The SDI/TDI/ERDI Instructor



Dive Leader Risk Management

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 3-Dive Leader Risk Management

Methods of Instruction

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 4-Methods of Instruction

Business Side of Diving

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 5-Business of Diving

Teaching the TDI Helitrox Diver Program

.....

- Program overview
 - Classroom requirements



- Students are required to become familiar with: use of an oxygen and helium analyzer, equipment configuration, decompression theory, decompression planning (available software and manually using tables), thermal considerations as well as the selection and use of various gas mixes for helitrox diving. An Instructor must be able to demonstrate instructor level knowledge on all topics and skills in the current TDI Helitrox Diver standards.
- Pool / confined water requirements
 - While a pool / confined water session is not required, an instructor may take this opportunity to conduct an update with divers who have been inactive for a period of time, or conduct a skill evaluation to help the students become better divers. This is the ideal setting to conduct buoyancy skills and trim. If the depth of the pool/confined water permits, this is also a great setting to introduce and practice lift bag drills and mask drills.
- Open Water Requirements
 - Four dives are required. If this program is conducted in conjunction with other allowed courses, the four dives plus the required number of dives from the other program are required. For the open water dives it is best to take divers progressively deeper and not hit the maximum training depth in the first dive or two. It is also best to perform simulated decompression prior to obligated decompression stops. This also allows an opportunity for the instructor to monitor the diver's performance, abilities and overall comfort.
- Materials
 - Review all diver materials to make sure the instructor candidate is familiar with all diver materials and how they are supported by the instructor materials.
 - Diver Materials
 - Online
 - Printed



- Required paperwork
 - Discuss in detail how the instructor should complete the required paperwork
 - The instructor candidate must be familiar with all forms and be able to answer any question a diver may have regarding the completion of those forms
 - Diver Training Folder
 - Waiver
 - Medical Questionnaire
- Complete a thorough review of the appropriate TDI Instructor manual including:
 - How to conduct:
 - Academic sessions
 - Cover helpful hints on how to teach more involved subjects
 - Pool/ Confined water sessions (if one is conducted)
 - Helpful hints on:
 - How to teach skills
 - Conducting an update / skill evaluation
 - Possible problems an instructor may experience
 - How to deal with those problems
 - Open water sessions
 - Helpful hints on:
 - How to conduct skills in open water vs pool/confined
 - Possible problems an instructor may experience in open water
 - How to deal with those problems



List of tips on how to teach various aspects of this program include:

All topics from previous courses should be reiterated such as: analyzing and labeling cylinders, equipment configuration, etc.

Decompression Option – use of higher percentages of oxygen for decompression, planning helitrox dives using tables vs. dive planning software

Equipment Requirements – Since the helitrox course is a progression from advanced nitrox the additional equipment is minimal. Depending on the diver's air consumption rate, they may require higher volume cylinders for their primary gas and a decompression cylinder.

Dive Planning – dive planning will need to be covered in greater detail as previous courses may not have covered planning for decompression. It should be emphasized to the divers that any increase in depth has an impact on gas consumption and this needs to be calculated into their dive planning.

Reading tables

EAD

EAN

PO2

CNS

Verifying cylinder content

Labeling cylinders

List of academic / pool-confined water / open water topics for candidate to present:

History of mixed gas diving

Using Dive Tables (EAD and EAN Tables)

Advantages and Disadvantages of Helitrox

Use of oxygen and helium analyzers



Scheduling Options for this program

Courses can be scheduled with a one to one ratio, as a group or scheduled in conjunction with other TDI courses. Each of these will require different time commitments and scheduling logistics. A course with one helitrox diver will take less time than if combined with another TDI course with a group.

Overview

The TDI Helitrox Instructor program is comprised of classroom work sessions and open water dives. One day should be allotted for the academic session with two full days for the open water dives.

If this program is taught with any of the other allowed instructor programs, two to three full days for the classroom should be scheduled and the appropriate amount of days for the open water dives if two dives per day are scheduled. There may be times when the course can be completed in less time but it is always good to allot an extra day or two for make-up time or weather.

Classroom

You will need various pieces of equipment normally used for helitrox diving so the candidate can demonstrate: different configuration possibilities, dive planning (via dive planning software or tables). The instructor must be able to demonstrate to instructor level quality all academic topics in the current TDI Helitrox Diver standards.

Dives

Two days of diving should be scheduled if the program is taught by itself. If it is taught in conjunction with any of the other accepted TDI Instructor programs, additional days will need to be scheduled for the open water dives considering two dives per day will be completed. It is always good practice to build in some extra time for dives so the instructor candidates can clear their schedule.



Knowledge Quest Review Questions if applicable

No instructor level Knowledge Quest is available for this program, although the candidate should complete the diver level Knowledge Quest so they are familiar with the information.

Final Exam

No instructor level final exam is available for this program, although the candidate should complete the diver level final exam so they are familiar with the information.





Nitrox Gas Blender Instructor Program

- ▶ Welcome and Course Overview
- ▶ The TDI Instructor
- ▶ Dive Leader Risk Management
- ▶ Methods of Instruction
- ▶ Business Side of Diving
- ▶ Teaching the TDI Nitrox Gas Blender Diver Program

The TDI Nitrox Gas Blender Instructor Program can be taught in conjunction with the TDI Non-Diving Specialty Instructor program, or as a standalone specialty instructor course after the instructor candidate has completed a sport level open water scuba instructor course.

Objectives

The object of this program is to:

- Introduce the candidate to the TDI Instructor Guide and Student materials
- Demonstrate how to use the TDI Nitrox Gas Blender materials to train a new user
- Teach the instructor “How to Conduct” the TDI Nitrox Gas Blender Diver program

- Demonstrate how to register and certify a new TDI Nitrox Gas Blender user

Prerequisites for TDI Nitrox Gas Blender Instructor Program

See the current TDI Nitrox Gas Blender Instructor standards for the prerequisites and requirements for this program.

Materials Required

Teaching any program with outdated materials is just asking for problems. The trainer must confirm that their materials are current and each instructor has the current materials with which to teach the program.

Instructor Trainer

- TDI Nitrox Gas Blender Specialty Manual
- TDI Nitrox Gas Blender Specialty Knowledge Quest
- TDI Nitrox Gas Blender Specialty Instructor Guide
- TDI Instructor Trainer Manual

Instructor Candidate

- TDI Nitrox Gas Blender Specialty Diver Manual
- TDI Nitrox Gas Blender Specialty Diver Knowledge Quest
- TDI Nitrox Gas Blender Specialty Instructor Guide

Note: Prior to beginning the program the instructor candidate should review all instructor and diver materials and complete all knowledge quests and final exams so they are completely familiar with the subject matter and the support materials to teach the TDI Nitrox Gas Blender Diver program.



The topics to be covered are:

- Welcome and Course Orientation
- The TDI Instructor*
- Dive Leader Risk Management*
- Methods of Instruction*
- Business Side of Diving*
- Courses a TDI Nitrox Gas Blender Instructor Can Teach

*Core Topics: These core topics will be found in Part One of this manual; IT Information.

Welcome and Course Overview

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Paperwork

- Instructor Registration Form
- Personal Information
- Liability Release
- Medical Statement

Let's Get to Know Each Other

Professional Staff



Participants

- Your name?
- What type of technical diving experience do you have?
- Which technical diving activities interest you the most?
- Why are you interested in becoming a technical instructor?

About This Program

Course Objective

- Develop the appropriate knowledge and skills that are expected of every dive professional

Structure and Schedule

- Independent Study
- Classroom Presentations

Required Equipment

- Items you'll need for this course

Any Questions?



The TDI Instructor

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 2-The SDI/TDI/ERDI Instructor

Dive Leader Risk Management

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 3-Dive Leader Risk Management

Methods of Instruction

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 4-Methods of Instruction

Business Side of Diving

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 5-Business of Diving



Teaching the TDI Nitrox Gas Blender Diver Program

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- Program overview
 - Classroom requirements
 - Students are required to become familiar with: use of an oxygen analyzer, various cylinder sizes and working pressures, O₂ cleaning and labeling of cylinders. The appropriate trainings aids should be available for students to use. An Instructor candidate must be able to demonstrate instructor level knowledge on all topics and skills in the current TDI Nitrox Gas Blender standards.
 - Practical requirements
 - Students should be given various cylinders and ask to fill them to different volumes and percentages. By doing this they will learn the importance of filling slowly and monitoring fill pressures closely. Each method of mixing – partial pressure, banked, membrane or continuous – will present its own challenges and the challenges should be pointed out to the students. If possible, students should also use different types of oxygen analyzers.
- Materials
 - Review all diver materials to make sure the instructor candidate is familiar with all diver materials and how they are supported by the instructor materials.
 - Diver Materials
 - Printed
- Required paperwork



- Discuss in detail how the instructor should complete the required paperwork
- The instructor candidate must be familiar with all forms and be able to answer any question a diver may have regarding the completion of those forms
 - Diver Training Folder
 - Waiver
 - Medical Questionnaire
- Complete a thorough review of the appropriate TDI Instructor manual including:
 - How to conduct:
 - Academic sessions
 - Cover helpful hints on how to teach more involved subjects

List of tips on how to teach various aspects of this program include:

Responsibility of the gas blender – gas blenders have a serious responsibility as they are mixing a gas that a diver will breathe in order to stay alive underwater. This point must be made very clear; they must never get complacent in their duty to fill and analyze every fill they do and ensure it is within one percent +/-.

Gases of diving – this course only covers breathing gases that are oxygen based but blenders may also be asked to fill argon cylinders so it is important for blenders to understand what is breathable and what is not. It is also very important for candidates to understand that the quality of the air they are using is equally important.

Gas production equipment – there are many pieces of equipment involved in gas blending before the connection is made to the cylinder. Candidates



should be shown all of the components and asked to draw a diagram starting with the compressor. The diagram should show all the needed components and where they fit into the production such as: analyzers, flow restrictors, filtrations, bank system and shut off valves.

Mixing techniques – there are several different ways to ‘blend’ a nitrox mix: partial pressure, membrane and continuous to name a few, each of these methods needs to be discussed and their pros and cons examined.

Oxygen analysis – this is perhaps the most critical skill in this course. Candidates should mix enough cylinders that their results come out within +/- one percent of the target oxygen percentage. Doing this will give candidates plenty of practice using an oxygen analyzer.

Cylinder handling and sign out – each region has different rules and regulations for cylinder handling (oxygen cylinders included) and the rules and regulations for the area where the gas blender will be working must be covered. The final step in the process and responsibility of the gas blender is the acceptance of the cylinder by the diver. This acceptance should be done by the diver filling out and signing a fill log.

List of academic topics for candidate to present:

- History of gas blending

- Using Dive Tables, formulas and blending software

- Advantages and Disadvantages of Gas Blending

- Use of oxygen analyzers

Scheduling Options for this program

Courses can be scheduled with a one to one ratio, as a group or scheduled in conjunction with other TDI courses. Each of these will require different time commitments and scheduling logistics. It is not often that there will be a group of nitrox gas blending candidates but it should be explained that a blending course can be taught in conjunction with other TDI courses, such as: rebreather, advanced nitrox, trimix, advanced trimix.



Overview

The TDI Gas Blender Instructor program requires practical elements such as blending of cylinders so it will require both a classroom and a fill station to be available.

Classroom

You will need several different cylinders of various sizes and working pressures so the instructor candidate can practice filling them and using the analyzers. Candidates are required to perform and pass an academic presentation.

Knowledge Quest Review Questions if applicable

No instructor level Knowledge Quest is available for this program, although the candidate should complete the diver level Knowledge Quest so they are familiar with the information.

Final Exam

No instructor level final exam is available for this program, although the candidate should complete the diver level final exam so they are familiar with the information.







Advanced Gas Blender Instructor Program

- ▶ Welcome and Course Overview
- ▶ The TDI Instructor
- ▶ Dive Leader Risk Management
- ▶ Methods of Instruction
- ▶ Business Side of Diving
- ▶ Teaching the TDI Advanced Gas Blender Diver Program

The TDI Advanced Gas Blender Instructor Program can be taught in conjunction with the TDI Non-Diving Specialty Instructor program or as a standalone specialty instructor upgrade course after the instructor candidate has completed a sport level open water scuba instructor course and a basic gas blending instructor course.

Objectives

The object of this program is to:

- Introduce the candidate to the TDI Instructor Guide and Student materials
- Demonstrate how to use the TDI Advanced Gas Blender materials to train a new user
- Teach the instructor “How to Conduct” the TDI Advanced Gas Blender User program

- Demonstrate how to register and certify a new TDI Advanced Gas Blender User

Prerequisites for TDI Advanced Gas Blender Instructor Program

See the current TDI Advanced Gas Blender Instructor standards for the prerequisites and requirements for this program.

Materials Required

Teaching any program with outdated materials is just asking for problems. The trainer must confirm that their materials are current and each instructor has the current materials with which to teach the program.

Instructor Trainer

- TDI Advanced Gas Blender Specialty Manual
- TDI Advanced Gas Blender Specialty Knowledge Quest
- TDI Advanced Gas Blender Specialty Instructor Guide
- TDI Instructor Trainer Manual

Instructor Candidate

- TDI Advanced Gas Blender Specialty Diver Manual
- TDI Advanced Gas Blender Specialty Diver Knowledge Quest
- TDI Advanced Gas Blender Specialty Instructor Guide

Note: Prior to beginning the program the instructor candidate should review all instructor and diver materials and complete all knowledge quests and final exams so they are completely familiar with the subject matter and the support materials to teach the TDI Advanced Gas Blender Diver program.



The topics to be covered are:

- Welcome and Course Orientation
- The TDI Instructor*
- Dive Leader Risk Management*
- Methods of Instruction*
- Business Side of Diving*
- Courses a TDI Advanced Gas Blender Instructor Can Teach

*Core Topics: These core topics will be found in Part One of this manual; IT Information

Welcome and Course Overview

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Paperwork

- Instructor Registration Form
- Personal Information
- Liability Release
- Medical Statement

Let's Get to Know Each Other

Professional Staff



Participants

- Your name?
- What type of technical diving experience do you have?
- Which technical diving activities interest you the most?
- Why are you interested in becoming a technical instructor?

About This Program

Course Objective

- Develop the appropriate knowledge and skills that are expected of every dive professional

Structure and Schedule

- Independent Study
- Classroom Presentations

Required Equipment

- Items you'll need for this course

Any Questions?

The TDI Instructor

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 2-The SDI/TDI/ERDI Instructor



Dive Leader Risk Management

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 3-Dive Leader Risk Management

Methods of Instruction

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 4-Methods of Instruction

Business Side of Diving

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 5-Business of Diving

Teaching the TDI Advanced Gas Blender Diver Program

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- Program overview
 - Classroom requirements



- Students are required to become familiar with: use of oxygen and helium analyzers, various cylinder sizes and working pressures, O2 cleaning and labeling of cylinders. The appropriate training aids should be available for students to use. An Instructor candidate must be able to demonstrate instructor level knowledge on all topics and skills in the current TDI Advanced Gas Blender standards.
- Practical requirements
 - Students should be given various cylinders and ask to fill them to different volumes and percentages. By doing this they will learn the importance of filling slowly and monitoring fill pressures closely. Each method of mixing – partial pressure, banked, membrane or continuous – will present its own challenges and the challenges should be pointed out to the students. If possible, students should also use different types of oxygen and helium analyzers.
- Materials
 - Review all diver materials to make sure the instructor candidate is familiar with all diver materials and how they are supported by the instructor materials.
 - Diver Materials
 - Printed
- Required paperwork
 - Discuss in detail how the instructor should complete the required paperwork
 - The instructor candidate must be familiar with all forms and be able to answer any question a diver may have regarding the completion of those forms
 - Diver Training Folder
 - Waiver
 - Medical Questionnaire



- Complete a thorough review of the appropriate TDI Instructor manual including:
 - How to conduct:
 - Academic sessions
 - Cover helpful hints on how to teach more involved subjects

List of tips on how to teach various aspects of this program include:

Responsibility of the gas blender – gas blenders have a serious responsibility as they are mixing a gas that a diver will breathe in order to stay alive underwater. This point must be made very clear: they must never get complacent in their duty to fill and analyze every fill they do and ensure it is within one percent +/-.

Gases of diving – this course covers breathing gases that are oxygen and helium based but blenders may also be asked to fill argon cylinders so it is important for blenders to understand what is breathable and what is not. It is also very important for candidates to understand that the quality of the air they are using is equally important.

Gas production equipment – there are many pieces of equipment involved in gas blending before the connection is made to the cylinder. Candidates should be shown all of the components and asked to draw a diagram starting with the compressor. The diagram should show all the needed components and where they fit into the production such as: analyzers, flow restrictors, filtrations, bank system and shut off valves.

Mixing techniques – there are several different ways to ‘blend’ a nitrox or helium mix: partial pressure and continuous to name a few. Each of these methods needs to be discussed and their pros and cons explained.

Oxygen helium analysis – this is perhaps the most critical skill in this course. Candidates should mix enough cylinders that their results come out within +/- one percent of the target oxygen percentage. Doing this will give



candidates plenty of practice using an oxygen and helium analyzer.

Cylinder handling and sign out – each region has different rules and regulations for cylinder handling (oxygen cylinders included) and the rules and regulations for the area where the gas blender will be working must be covered. The final step in the process and responsibility of the gas blender is the acceptance of the cylinder by the diver. This acceptance should be done by the diver filling out and signing a fill log.

List of academic topics for candidate to present:

History of gas blending

Using Dive Tables, formulas and blending software

Advantages and Disadvantages of Gas Blending

Use of oxygen helium analyzers

Scheduling Options for this program

Courses can be scheduled with a one to one ratio, as a group or scheduled in conjunction with other TDI courses. Each of these will require different time commitments and scheduling logistics. It is not often that there will be a group of advanced gas blending candidates but it should be explained that a blending course can be taught in conjunction with other TDI courses, such as: rebreather, advanced nitrox, trimix, or advanced trimix.

Overview

The TDI Advanced Gas Blender Instructor program requires practical elements such as blending of cylinders so it will require both a classroom and a fill station to be available.

Classroom

You will need several different cylinders of various sizes and working pressures so the instructor candidate can practice filling them and using the analyzers. Candidates are required to perform and pass an academic



presentation.

Knowledge Quest Review Questions if applicable

No instructor level Knowledge Quest is available for this program, although the candidate should complete the diver level Knowledge Quest so they are familiar with the information.

Final Exam

No instructor level final exam is available for this program, although the candidate should complete the diver level final exam so they are familiar with the information.







Equipment O₂ Service Technician Instructor Program

- ▶ Welcome and Course Overview
- ▶ The TDI Instructor
- ▶ Dive Leader Risk Management
- ▶ Methods of Instruction
- ▶ Business Side of Diving
- ▶ Teaching the TDI Equipment O₂ Service Technician Diver Program

The TDI Equipment O₂ Service Technician Instructor Program can be taught in conjunction with the TDI Non-Diving Specialty Instructor program or as a standalone specialty instructor upgrade course after the instructor candidate has completed a sport level open water scuba instructor course.

Objectives

The object of this program is to:

- Introduce the candidate to the TDI Instructor Guide and Student materials
- Demonstrate how to use the TDI Equipment O₂ Service Technician Instructor materials to train a new user
- Teach the instructor “How to Conduct” the TDI Equipment O₂ Service Technician User program
- Demonstrate how to register and certify a new TDI Equipment O₂ Service Technician User



Prerequisites for TDI Equipment O2 Service Technician Instructor Program

See the current TDI Equipment O2 Service Technician Instructor standards for the prerequisites and requirements for this program.

Materials Required

Teaching any program with outdated materials is just asking for problems. The trainer must confirm that their materials are current and each instructor has the current materials with which to teach the program.

Instructor Trainer

- TDI O2 Equipment Service Manual
- TDI O2 Equipment Service Knowledge Quest
- TDI O2 Equipment Service Instructor Guide
- TDI Instructor Trainer Manual

Instructor Candidate

- TDI O2 Equipment Service Manual
- TDI O2 Equipment Service Knowledge Quest
- TDI O2 Equipment Service Instructor Guide

Note: Prior to beginning the program the instructor candidate should review all instructor and diver materials and complete all knowledge quests and final exams so they are completely familiar with the subject matter and the support materials to teach the TDI Equipment O2 Service Technician diver program.



The topics to be covered are:

- Welcome and Course Orientation
- The TDI Instructor*
- Dive Leader Risk Management*
- Methods of Instruction*
- Business Side of Diving*
- Courses a TDI O2 Equipment Service Tech Instructor Can Teach

*Core Topics: These core topics will be found in Part One of this manual; IT Information

Welcome and Course Overview

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Paperwork

- Instructor Registration Form
- Personal Information
- Liability Release
- Medical Statement

Let's Get to Know Each Other

Professional Staff



Participants

- Your name?
- What type of technical diving experience do you have?
- Which technical diving activities interest you the most?
- Why are you interested in becoming a technical instructor?

About This Program

Course Objective

- Develop the appropriate knowledge and skills that are expected of every dive professional

Structure and Schedule

- Independent Study
- Classroom Presentations

Required Equipment

- Items you'll need for this course

Any Questions?

The TDI Instructor

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 2-The SDI/TDI/ERDI Instructor



Dive Leader Risk Management

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 3-Dive Leader Risk Management

Methods of Instruction

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 4-Methods of Instruction

Business Side of Diving

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 5-Business of Diving

Teaching the TDI Equipment O2 Service Technician Diver Program

- Program overview
 - Classroom requirements
 - Students are required to become familiar with: use of oxygen cleaning chemicals, various forms of inspection techniques, O2 cleaning and labeling of cylinders. The appropriate training aids should be available for students to use. An Instructor candidate must be able to demonstrate instructor level knowledge on all topics and skills in the current TDI Equipment O2 Service Technician standards.



- Materials
 - Review all diver materials to make sure the instructor candidate is familiar with all diver materials and how they are supported by the instructor materials.
 - Diver Materials
 - Printed
- Required paperwork
 - Discuss in detail how the instructor should complete the required paperwork
 - The instructor candidate must be familiar with all forms and be able to answer any question a diver may have regarding the completion of those forms
 - Diver Training Folder
 - Waiver
 - Medical Questionnaire
- Complete a thorough review of the appropriate TDI Instructor manual including:
 - How to conduct:
 - Academic sessions
 - Cover helpful hints on how to teach more involved subjects

List of tips on how to teach various aspects of this program include:

Responsibility of the equipment O2 service tech – O2 service techs have a serious responsibility as they will be cleaning equipment that will be exposed to high levels of oxygen and equipment that diver's lives depend on. This point must be made very clear: they must never get complacent



in their duty. They should also always use the proper tools, chemicals and parts when performing these tasks.

Oxygen handling – oxygen when handled properly is a pretty safe gas but when introduced to the wrong materials or high temperatures it becomes a fire accelerant. Teaching users how to properly clean and inspect equipment so it is compatible with 100 percent oxygen is vital to their success and safety.

Equipment servicing – this course does not get into manufacturer specifications of equipment, which is why a manufacturer’s certification is required. What the course does cover is the proper cleaning and lubricants that need to be used and how to inspect to ensure that the cleaning was complete and no trace elements were left.

Mixing techniques – there is a separate course for gas blending so this section is really just so the user understands the procedures for how oxygen and other gases are introduced to valves, manifolds and cylinders. Some options for gas production are pre-mix, continuous blend and membrane, which may not introduce oxygen levels above 40 percent but it is still very good information to know.

Oxygen analysis – equipment O2 service techs may be at times asked to assist a diver in analyzing their cylinder(s) and logging the fill so they can pick up their cylinders. Teaching service techs to do this can be an invaluable skill.

Reading tables

EAD

EAN

Verifying cylinder content



List of academic topics for candidate to present:

Manufacturer's certifications

Chemicals used in O2 cleaning

Tools used in O2 cleaning

Proper inspection and storage after O2 cleaning

Scheduling Options for this program

Courses can be scheduled with a one to one ratio, as a group or scheduled in conjunction with other TDI courses. Each of these will require different time commitments and scheduling logistics. It is not often that there will be a group of equipment O2 service tech candidates but it should be explained that a O2 service tech course can be taught in conjunction with other TDI courses, such as: nitrox gas blender, advanced gas blender and VIP.

Overview

The TDI Equipment O2 Service Tech program requires practical elements such as O2 cleaning of cylinders, valves, manifolds and regulators so it will require both a classroom and a service area to be available.

Classroom

You will need several different cylinders, regulators, valves, manifolds for the candidate(s) to use. Candidates are required to perform and pass an academic presentation.

Knowledge Quest Review Questions if applicable

No instructor level Knowledge Quest is available for this program, although the candidate should complete the diver level Knowledge Quest so they are familiar with the information.



Final Exam

No instructor level final exam is available for this program, although the candidate should complete the diver level final exam so they are familiar with the information.







Cavern Instructor Program

- ▶ Welcome and Course Overview
- ▶ The TDI Instructor
- ▶ Dive Leader Risk Management
- ▶ Methods of Instruction
- ▶ Business Side of Diving
- ▶ Teaching the TDI Cavern Diver Program

The TDI Cavern Instructor Program is an introduction to the more involved Intro-to-Cave and Full Cave instructor ratings. If this is the first program an instructor is completing through TDI more time will need to be spent on the core topics listed below. Once an instructor has completed their initial TDI Cavern Instructor program, or any initial TDI Instructor program, they will need only to focus on the course specific content for future programs.

Objectives

The object of this program is to:

- Introduce the instructor to TDI
- Introduce the candidate to the TDI Instructor Guide and Student materials
- Demonstrate how to use the TDI Diving in Overhead Environment materials to train a new diver

- Teach the instructor “How to Conduct” the TDI Cavern Diver program
- Demonstrate how to register and certify a new Cavern diver

Prerequisites for TDI Cavern Instructor Program

See the current TDI Cavern Instructor standards for the prerequisites and requirements for this program.

Materials Required

Teaching any program with outdated materials is just asking for problems. The trainer must confirm that their materials are current and each instructor has the current materials with which to teach the program.

Instructor Trainer

- TDI Diving in an Overhead Environment Diver Manuals
- TDI Diving in an Overhead Environment Knowledge Quests
- TDI Diving in an Overhead Environment Instructor Guides
- TDI Diving in an Overhead Environment PowerPoint Presentation®
- TDI Instructor Trainer Manual

Instructor Candidate

- TDI Diving in an Overhead Environment Diver Manuals
- TDI Diving in an Overhead Environment Diver Knowledge Quests
- TDI Diving in an Overhead Environment Instructor Guides
- TDI Diving in an Overhead Environment PowerPoint Presentation®



Note: Prior to beginning the program the instructor candidate should review all instructor and diver materials and complete all knowledge quests and final exams so they are completely familiar with the subject matter and the support materials to teach the TDI Cavern Diver program.

The topics to be covered are:

- Welcome and Course Orientation
- The TDI Instructor*
- Dive Leader Risk Management*
- Methods of Instruction*
- Business Side of Diving*
- Courses a TDI Cavern Instructor Can Teach

*Core Topics: These core topics will be found in Part One of this manual; IT Information.

Welcome and Course Overview

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Paperwork

- Instructor Registration Form
- Personal Information
- Liability Release
- Medical Statement



Let's Get to Know Each Other

Professional Staff

Participants

- Your name?
- What type of technical diving experience do you have?
- Which technical diving activities interest you the most?
- Why are you interested in becoming a technical instructor?

About This Program

Course Objective

- Develop the appropriate knowledge and skills that are expected of every dive professional

Subject Areas

- The TDI Instructor
- Dive Leader Risk Management
- Methods of Instruction
- Business Side of Diving

Structure and Schedule

- Independent Study
- Classroom Presentations
- Confined Water Training
- Open Water Training



Required Equipment

- Items you'll need for this course

Any Questions?

The TDI Instructor

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 2-The SDI/TDI/ERDI Instructor

Dive Leader Risk Management

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 3-Dive Leader Risk Management

Methods of Instruction

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 4-Methods of Instruction



Business Side of Diving

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 5-Business of Diving

Teaching the TDI Cavern Diver Program

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Program overview

- Classroom requirements
 - Students are required to become familiar with: risk and hazards of overhead environments, the inability to make a direct ascent to the surface when in an overhead environment, use of a reel as a navigational tool and use of artificial light. An Instructor must be able to demonstrate instructor level knowledge on all topics and skills in the current TDI Cavern Diver standards.
- Pool / confined water requirements
 - While a pool / confined water session is not required, an instructor may take this opportunity to conduct an update with divers who have been inactive for a period of time, or conduct a skill evaluation to help the students become better divers. This is the ideal setting to conduct buoyancy skills, trim and equipment configuration. If the depth of the pool/confined water permits, this is also a great setting to introduce and practice lift bag drills, line drills and blacked out or



no mask skills.

- Open Water Requirements

- Four dives with a minimum of 80 minutes of bottom time are required. If this program is conducted in conjunction with other allowed courses, the four dives plus the required number of dives from the other program are required. For the intro to cave dives it is best to take divers progressively deeper into the cavern so they get a slower introduction to overhead diving. The first couple of dives can be started on the outside of the cavern so divers get a sense of how the cavern is shaped and entry and exit points. This also allows an opportunity for the instructor to monitor the comfort level and abilities of the diver.

- Materials

- Review all diver materials to make sure the instructor candidate is familiar with all diver materials and how they are supported by the instructor materials.

- Diver Materials

- Online
- Printed

- Required paperwork

- Discuss in detail how the instructor should complete the required paperwork
- The instructor candidate must be familiar with all forms and be able to answer any question a diver may have regarding the completion of those forms
 - Diver Training Folder
 - Waiver
 - Medical Questionnaire



- Complete a thorough review of the appropriate TDI Instructor manual including:
 - How to conduct:
 - Academic sessions
 - Cover helpful hints on how to teach more involved subjects
 - Pool/ Confined water sessions (if one is conducted)
 - Helpful hints on:
 - How to teach skills
 - Conducting an update / skill evaluation
 - Possible problems an instructor may experience
 - How to deal with those problems
 - Open water sessions
 - Helpful hints on:
 - How to conduct skills in open water vs pool/confined
 - Possible problems an instructor may experience in open water
 - How to deal with those problems

List of tips on how to teach various aspects of this program include:

Policy for cavern diving – many inland caverns are on private property and divers have access thanks to the good nature of the landowners. This privilege can be taken away if respect is not shown to the landowners. It is best to explain to candidates the proper etiquette when working with landowners so that future divers will continue to have access.

Equipment considerations – since this may be the first overhead course



for some divers, covering the additional equipment needed is very important such as: line cutting devices, more than one light and reels. Introducing this equipment and its value also prepares divers for the next step of intro to cave diving.

Communication – the basics of hand and light signals are pretty well known by divers so what needs to be covered are the signals unique to overhead diving. Divers who have never had any experience in silted out conditions or where there is no light will also need to be introduced to touch contact signals. Touch contact signals are best shown by blacking out the divers masks and having them communicate. This skill can be performed on land or in the water.

Swimming techniques – divers will all have a preferred kick style but most have never considered where the thrust from their fin goes or that the thrust could silt out or damage the environment they are in. Have divers swim either in a pool or basin using different kicks and see which works best for them.

Cavern environment – explaining how cave systems and caverns are formed is a very important and fun part of the course. Explaining that a majority of freshwater systems are a large network that makes up the drinking water of a given area is something very few people know.

Problem solving – this topic needs to be explained and practiced until it becomes second nature to the diver. The cavern course may be the first course that has taken the diver into an overhead environment and for the first time they will not be able to make a direct ascent to the surface or go back the same way they came in, in order to exit. Teaching the divers good air management and showing them how to use a reel will go a long way in problem solving underwater.

List of academic / pool-confined water / open water topics for candidate to present:

- History and formation of caverns and caves
- Cavern etiquette
- Advantages and Disadvantages of Cavern diving
- Cavern environment: geology, local access



Accident analysis

Scheduling Options for this program

Courses can be scheduled with a one to one ratio, as a group or scheduled in conjunction with other TDI courses. Each of these will require different time commitments and scheduling logistics. A course with one cavern diver will take less time than if combined with another TDI course with a group. The cavern course is also commonly taught as a prep course for intro to cave so enough time needs to be allotted for both courses.

Overview

The TDI Cavern Instructor program is comprised of classroom sessions and cavern dives. One day should be allotted for the academic session with three full days for the cavern dives.

If this program is taught with any of the other allowed instructor programs, two to three full days for the classroom should be scheduled and the appropriate amount of days for the cavern dives if two dives per day are scheduled. Since the instructor course requires a panel evaluation, ensure that other cavern evaluators or senior cavern instructors are available. There may be times when the course can be completed in less time but it is always good to allot an extra day or two for make-up time or weather.

Classroom

You will need various pieces of equipment normally used for cavern diving as well as some maps (if available) or drawings of the caverns that you may be diving. You can have the candidate conduct the research on the caverns and let them bring the information and present it. The instructor must be



able to demonstrate to instructor level quality all academic topics in the current TDI Cavern Diver standards.

Dives

Two days of diving should be scheduled if the program is taught by itself. If it is taught in conjunction with any of the other accepted TDI Instructor programs, additional days will need to be scheduled for the cavern dives considering two dives per day will be completed. It is always good practice to build in some extra time for dives so the instructor candidates can clear their schedule.

Knowledge Quest Review Questions if applicable

No instructor level Knowledge Quest is available for this program, although the candidate should complete the diver level Knowledge Quest so they are familiar with the information.

Final Exam

No instructor level final exam is available for this program, although the candidate should complete the diver level final exam so they are familiar with the information.







Intro to Cave Instructor Program

- ▶ Welcome and Course Overview
- ▶ The TDI Instructor
- ▶ Dive Leader Risk Management
- ▶ Methods of Instruction
- ▶ Business Side of Diving
- ▶ Teaching the TDI Intro to Cave Diver Program

The TDI Intro to Cave Instructor Program is typically an upgrade from the TDI Cavern Instructor rating. If this is the first program an instructor is completing through TDI more time will need to be spent on the core topics listed below. Once an instructor has completed their initial TDI Intro to Cave Instructor program, or any initial TDI Instructor program, they will need only to focus on the course specific content for future programs.

Objectives

The object of this program is to:

- Introduce the instructor to TDI
- Introduce the candidate to the TDI Instructor Guide and Student materials
- Demonstrate how to use the TDI Diving in Overhead Environment materials to train a new diver

- Teach the instructor “How to Conduct” the TDI Intro to Cave Diver program
- Demonstrate how to register and certify a new Intro to Cave Diver

Prerequisites for TDI Intro to Cave Instructor Program

See the current TDI Intro to Cave Instructor standards for the prerequisites and requirements for this program.

Materials Required

Teaching any program with outdated materials is just asking for problems. The trainer must confirm that their materials are current and each instructor has the current materials with which to teach the program.

Instructor Trainer

- TDI Diving in an Overhead Environment Diver Manual
- TDI Diving in an Overhead Environment Knowledge Quest
- TDI Diving in an Overhead Environment Instructor Guide
- TDI Diving in an Overhead Environment PowerPoint Presentation®
- TDI Instructor Trainer Manual

Instructor Candidate

- TDI Diving in an Overhead Environment Diver Manual
- TDI Diving in an Overhead Environment Diver Knowledge Quest
- TDI Diving in an Overhead Environment Instructor Guide



- TDI Diving in an Overhead Environment PowerPoint Presentation®

Note: Prior to beginning the program the instructor candidate should review all instructor and diver materials and complete all knowledge quests and final exams so they are completely familiar with the subject matter and the support materials to teach the TDI Intro to Cave Diver program.

The topics to be covered are:

- Welcome and Course Orientation
- The TDI Instructor*
- Dive Leader Risk Management*
- Methods of Instruction*
- Business Side of Diving*
- Courses a TDI Intro to Cave Instructor can teach?

*Core Topics: These core topics will be found in Part One of this manual; IT Information.

Welcome and Course Overview

.....

Paperwork

- Instructor Registration Form
- Personal Information
- Liability Release
- Medical Statement



Let's Get to Know Each Other

Professional Staff

Participants

- Your name?
- What type of technical diving experience do you have?
- Which technical diving activities interest you the most?
- Why are you interested in becoming a technical instructor?

About This Program

Course Objective

- Develop the appropriate knowledge and skills that are expected of every dive professional

Subject Areas

- The TDI Instructor
- Dive Leader Risk Management
- Methods of Instruction
- Business Side of Diving

Structure and Schedule

- Independent Study
- Classroom Presentations
- Confined Water Training
- Open Water Training



Required Equipment

- Items you'll need for this course

Any Questions?

The TDI Instructor

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 2-The SDI/TDI/ERDI Instructor

Dive Leader Risk Management

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 3-Dive Leader Risk Management

Methods of Instruction

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 4-Methods of Instruction



Business Side of Diving

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 5-Business of Diving

Teaching the TDI Intro to Cave Diver Program

.....

- Program overview
 - Classroom requirements
 - Students are required to become familiar with: risk and hazards of overhead environments, the inability to make a direct ascent to the surface when in an overhead environment, use of a reel as a navigational tool and use of artificial light. An Instructor must be able to demonstrate instructor level knowledge on all topics and skills in the current TDI Intro to Cave Diver standards.
 - Pool / confined water requirements
 - While a pool / confined water session is not required, an instructor may take this opportunity to conduct an update with divers who have been inactive for a period of time, or conduct a skill evaluation to help the students become better divers. This is the ideal setting to conduct buoyancy skills, trim and equipment configuration. If the depth of the pool/confined water permits, this is also a great setting to introduce and practice lift bag drills, line drills and blacked out or no mask skills.



- Open Water Requirements

- Four dives with a minimum of 100 minutes of bottom time are required. If this program is conducted in conjunction with other allowed courses, the four dives plus the required number of dives from the other program are required. For the intro to cave dives it is best to take divers progressively deeper into the cave so they get a slower introduction to overhead and out of the light zone diving. The first couple of dives can be started on the outside in the cavern or basin so divers get a sense of how the entrance to the cave is shaped and entry and exit points. This also allows an opportunity for the instructor to monitor the comfort level and abilities of the diver.

- Materials

- Review all diver materials to make sure the instructor candidate is familiar with all diver materials and how they are supported by the instructor materials.

- Diver Materials

- Online

- Printed

- Required paperwork

- Discuss in detail how the instructor should complete the required paperwork

- The instructor candidate must be familiar with all forms and be able to answer any question a diver may have regarding the completion of those forms

- Diver Training Folder

- Waiver

- Medical Questionnaire



- Complete a thorough review of the appropriate TDI Instructor manual including:
 - How to conduct:
 - Academic sessions
 - Cover helpful hints on how to teach more involved subjects
 - Pool/ Confined water sessions (if one is conducted)
 - Helpful hints on:
 - How to teach skills
 - Conducting an update / skill evaluation
 - Possible problems an instructor may experience
 - How to deal with those problems
 - Open water sessions
 - Helpful hints on:
 - How to conduct skills in open water vs pool/confined
 - Possible problems an instructor may experience in open water
 - How to deal with those problems

List of tips on how to teach various aspects of this program include:

Policy for cave diving – many inland caves are on private property and divers have access thanks to the good nature of the landowners. This privilege can be taken away if respect is not shown to the landowners. It is best to explain to candidates the proper etiquette when working with landowners so that future divers will continue to have access.

Equipment considerations – since divers have already been introduced



to overhead environments, the list of additional equipment such as: two reels, three lights and two cutting devices should be expected, but is very important to cover again. Restating the value of these items also prepares divers for the next step of cave diving.

Communication – overhead hand signals will have already been covered in the cavern course but reviewing them again would be prudent. It is not uncommon for divers to have varying hand/light signals and if you have never worked with them before or they are with a new buddy, it is best to get this worked out before the dive.

Swimming techniques – divers will all have a preferred kick style but most have never considered where the thrust from their fin goes or that the thrust could silt out or damage the environment they are in. Have divers swim either in a pool or basin using different kicks and see which works best for them.

Cave environment – explaining how cave systems are formed is a very important and fun part of the course. Explaining that a majority of freshwater systems are a large network that makes up the drinking water of a given area is something very few people know.

Problem solving – this topic needs to be explained and practiced till it becomes second nature to the diver. The cave course may be the first course that has taken the diver into an overhead environment out of the light zone and for the first time they will not be able to make a direct ascent to the surface or go back the same way they came in, in order to exit. Teaching the divers good air management and showing them how to use a reel as well as staying on the main line will go a long way in problem solving underwater.

List of academic / pool-confined water / open water topics for candidate to present:

History and formation of caves

Cave etiquette

Advantages and Disadvantages of intro to cave diving



Cave environment: geology, local access

Accident analysis

Scheduling Options for this program

Courses can be scheduled with a one to one ratio, as a group or scheduled in conjunction with other TDI courses. Each of these will require different time commitments and scheduling logistics. A course with one intro to cave diver will take less time than if combined with another TDI course with a group. Intro to cave course is also commonly taught as a prep course for cave so enough time needs to be allotted for both courses.

Overview

The TDI Intro to Cave Instructor program is comprised of classroom sessions and cave dives. One day should be allotted for the academic session with three full days for the cave dives.

If this program is taught with any of the other allowed instructor programs, two to three full days for the classroom should be scheduled and the appropriate amount of days for the intro to cave dives if two dives per day are scheduled. Since the instructor course requires a panel evaluation, ensure that other intro to cave evaluators or senior cave instructors are available. There may be times when the course can be completed in less time but it is always good to allot an extra day or two for make-up time or weather.

Classroom

You will need various pieces of equipment normally used for intro to cave diving as well as some maps (if available) or drawings of the cave system that you may be diving. You can have the candidate conduct the research on the cave system(s) and let them bring the information and present it. The instructor must be able to demonstrate to instructor level quality all



academic topics in the current TDI Intro to Cave Diver standards.

Dives

Three days of diving should be scheduled if the program is taught by itself. If it is taught in conjunction with any of the other accepted TDI Instructor programs, additional days will need to be scheduled for the intro to cave dives considering two dives per day will be completed. It is always good practice to build in some extra time for dives so the instructor candidates can clear their schedule.

Knowledge Quest Review Questions if applicable

No instructor level Knowledge Quest is available for this program, although the candidate should complete the diver level Knowledge Quest so they are familiar with the information.

Final Exam

No instructor level final exam is available for this program, although the candidate should complete the diver level final exam so they are familiar with the information







Cave Instructor Program

- ▶ Welcome and Course Overview
- ▶ The TDI Instructor
- ▶ Dive Leader Risk Management
- ▶ Methods of Instruction
- ▶ Business Side of Diving
- ▶ Teaching the TDI Cave Diver Program

The TDI Cave Instructor Program is typically an upgrade from the TDI Intro to Cave Instructor rating. If this is the first program an instructor is completing through TDI more time will need to be spent on the core topics listed below. Once an instructor has completed their initial TDI Cave Instructor program, or any initial TDI Instructor program, they will need only to focus on the course specific content for future programs.

Objectives

The object of this program is to:

- Introduce the instructor to TDI
- Introduce the candidate to the TDI Instructor Guide and Student materials
- Demonstrate how to use the TDI Diving in an Overhead Environment materials to train a new diver

- Teach the instructor “How to Conduct” the TDI Cave Diver program
- Demonstrate how to register and certify a new Cave diver

Prerequisites for TDI Cave Instructor Program

See the current TDI Cave Instructor standards for the prerequisites and requirements for this program.

Materials Required

Teaching any program with outdated materials is just asking for problems. The trainer must confirm that their materials are current and each instructor has the current materials with which to teach the program.

Instructor Trainer

- TDI Diving in an Overhead Environment Diver Manual
- TDI Diving in an Overhead Environment Knowledge Quest
- TDI Diving in an Overhead Environment Instructor Guide
- TDI Diving in an Overhead Environment PowerPoint Presentation®
- TDI Instructor Trainer Manual

Instructor Candidate

- TDI Diving in an Overhead Environment Diver Manual
- TDI Diving in an Overhead Environment Diver Knowledge Quest
- TDI Diving in an Overhead Environment Instructor Guide
- TDI Diving in an Overhead Environment PowerPoint Presentation®



Note: Prior to beginning the program the instructor candidate should review all instructor and diver materials and complete all knowledge quests and final exams so they are completely familiar with the subject matter and the support materials to teach the TDI Cave Diver program.

The topics to be covered are:

- Welcome and Course Orientation
- The TDI Instructor*
- Dive Leader Risk Management*
- Methods of Instruction*
- Business Side of Diving*
- Courses a TDI Cave Instructor Can Teach

*Core Topics: These core topics will be found in Part One of this manual; IT Information.

Welcome and Course Overview

.....

Paperwork

- Instructor Registration Form
- Personal Information
- Liability Release
- Medical Statement

Let's Get to Know Each Other



Professional Staff

Participants

- Your name?
- What type of technical diving experience do you have?
- Which technical diving activities interest you the most?
- Why are you interested in becoming a technical instructor?

About This Program

Course Objective

- Develop the appropriate knowledge and skills that are expected of every dive professional

Subject Areas

- The TDI Instructor
- Dive Leader Risk Management
- Methods of Instruction
- Business Side of Diving

Structure and Schedule

- Independent Study
- Classroom Presentations
- Confined Water Training
- Open Water Training



Required Equipment

- Items you'll need for this course

Any Questions?

The TDI Instructor

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 2-The SDI/TDI/ERDI Instructor

Dive Leader Risk Management

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 3-Dive Leader Risk Management

Methods of Instruction

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 4-Methods of Instruction



Business Side of Diving

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 5-Business of Diving

Teaching the TDI Cave Diver Program

.....

- Program overview
 - Classroom requirements
 - Students are required to become familiar with: risk and hazards of overhead environments, the inability to make a direct ascent to the surface when in an overhead environment, use of a reel as a navigational tool and use of artificial light. Since this course is a progression from the intro to cave, it is also important the divers learn proper techniques for jumping off the mainline and cylinder placements when conducting decompression dives. An Instructor must be able to demonstrate instructor level knowledge on all topics and skills in the current TDI Cave Diver standards.
 - Pool / confined water requirements
 - While a pool / confined water session is not required, an instructor may take this opportunity to conduct an update with divers who have been inactive for a period of time, or conduct a skill evaluation to help the students become better divers. This is the ideal setting to conduct buoyancy skills, trim and equipment configuration. If the



depth of the pool/confined water permits, this is also a great setting to introduce and practice lift bag drills, line drills and blacked out or no mask skills.

- Open Water Requirements

- Eight dives with a minimum of 240 minutes of bottom time at three different sites are required. If this program is conducted in conjunction with other allowed courses, the eight dives plus the required number of dives from the other program are required. For the cave dives it is best to take divers progressively deeper into the cave so they get a slower introduction to overhead and out of the light zone diving, prior to jumping off the mainline or entering into areas with restrictions. The first couple of dives can be started in the larger cave area so divers get a sense of how the entrance to the cave is shaped, tie-off point(s) and entry and exit points. This also allows an opportunity for the instructor to monitor the comfort level and abilities of the diver.

- Materials

- Review all diver materials to make sure the instructor candidate is familiar with all diver materials and how they are supported by the instructor materials.

- Diver Materials

- Online
- Printed

- Required paperwork

- Discuss in detail how the instructor should complete the required paperwork

- The instructor candidate must be familiar with all forms and be able to answer any question a diver may have regarding the completion of those forms

- Diver Training Folder



- Waiver
- Medical Questionnaire
- Complete a thorough review of the appropriate TDI Instructor manual including:
 - How to conduct:
 - Academic sessions
 - Cover helpful hints on how to teach more involved subjects
 - Pool/ Confined water sessions (if one is conducted)
 - Helpful hints on:
 - How to teach skills
 - Conducting an update / skill evaluation
 - Possible problems an instructor may experience
 - How to deal with those problems
 - Open water sessions
 - Helpful hints on:
 - How to conduct skills in open water vs pool/confined
 - Possible problems an instructor may experience in open water
 - How to deal with those problems

List of tips on how to teach various aspects of this program include:

Policy for cave diving – many inland caves are on private property and divers have access thanks to the good nature of the landowners. This privilege can be taken away if respect is not shown to the landowners. It is best to explain to candidates the proper etiquette when working with landowners so



that future divers will continue to have access.

Equipment considerations – since divers have already been introduced to overhead environments, the list of additional equipment such as: two reels, three lights and two cutting devices should be expected, but it is very important to cover these requirements again as well as the addition of extra cylinders for added reserve gas or for decompression obligations.

Communication – overhead hand signals will have already been covered in the intro to cave course but reviewing them again would be prudent. New signals the divers may need include: Jump off mainline, decompression stop and line marker. It is not uncommon for divers to have varying hand/light signals and if you have never worked with them before or they are with a new buddy, it is best to get this worked out before the dive.

Swimming techniques – divers will all have a preferred kick style but most have never considered where the thrust from their fin goes or that the thrust could silt out or damage the environment they are in. Have divers swim either in a pool or basin using different kicks, and see which works best for them. Another propulsion technique that should be introduced is the pull and glide by using hands which is commonly used in areas where fins cannot be kicked and is a low siltation technique.

Cave environment – explaining how cave systems are formed is a very important and fun part of the course. Explaining that a majority of freshwater systems are a large network that makes up the drinking water of a given area is something very few people know.

Problem solving – this topic needs to be explained and practiced till it becomes second nature to the diver. The cave course may be the first course that has taken the diver into an overhead environment out of the light zone and for the first time they will not be able to make a direct ascent to the surface or go back the same way they came in, in order to exit. Teaching the divers good air management and showing them how to use a reel as well as staying on the main line will go a long way in problem solving underwater.



List of academic / pool-confined water / open water topics for candidate to present:

History and formation of caves

Cave etiquette

Advantages and Disadvantages of intro to cave diving

Cave environment: geology, local access

Accident analysis

Decompression in caves

Lost line

Scheduling Options for this program

Courses can be scheduled with a one to one ratio, as a group or scheduled in conjunction with other TDI courses. Each of these will require different time commitments and scheduling logistics. A course with one cave diver will take less time than if combined with another TDI course with a group. The cave course also requires that it be conducted in three different sites so enough time needs to be allotted.

Overview

The TDI Cave Instructor program is comprised of classroom sessions and cave dives. One day should be allotted for the academic session with four full days for the cave dives.

If this program is taught with any of the other allowed instructor programs, two to three full days for the classroom should be scheduled and the appropriate amount of days for the cave dives if two dives per day are scheduled. Since the instructor course requires a panel evaluation, ensure that other cave evaluators or senior cave instructors are available. There may be times when the course can be completed in less time but it is always good to allot an extra day or two for make-up time or weather.



Classroom

You will need various pieces of equipment normally used for cave diving as well as some maps (if available) or drawings of the cave systems that you may be diving. You can have the candidate conduct the research on the cave system(s) and let them bring the information and present it. The instructor must be able to demonstrate to instructor level quality all academic topics in the current TDI Cave Diver standards.

Dives

Four days of diving should be scheduled if the program is taught by itself. If it is taught in conjunction with any of the other accepted TDI Instructor programs, additional days will need to be scheduled for the cave dives considering two dives per day will be completed. It is always good practice to build in some extra time for dives so the instructor candidates can clear their schedule.

Knowledge Quest Review Questions if applicable

No instructor level Knowledge Quest is available for this program, although the candidate should complete the diver level Knowledge Quest so they are familiar with the information.

Final Exam

No instructor level final exam is available for this program, although the candidate should complete the diver level final exam so they are familiar with the information.







Semi-Closed Rebreather Instructor Program

- ▶ Welcome and Course Overview
- ▶ The TDI Instructor
- ▶ Dive Leader Risk Management
- ▶ Methods of Instruction
- ▶ Business Side of Diving
- ▶ Teaching the TDI Semi-Closed Rebreather Diver Program

The TDI Semi-closed Rebreather Instructor Program can be the first rebreather level instructor course a TDI Instructor may complete. If this is the first program an instructor is completing through TDI more time will need to be spent on the core topics listed below. Once an instructor has completed their initial TDI Semi-closed Rebreather Instructor program, or any initial TDI Instructor program, they will need only to focus on the course specific content for future programs.

Objectives

The object of this program is to:

- Introduce the instructor to TDI
- Introduce the candidate to the TDI Instructor Guide and Student materials



- Demonstrate how to use the TDI Semi-closed Rebreather materials to train a new diver
- Teach the instructor “How to Conduct” the TDI Semi-closed Rebreather Diver program
- Demonstrate how to register and certify a new Semi-closed Rebreather Diver

Prerequisites for TDI Semi-closed Rebreather Instructor Program

See the current TDI Semi-closed Rebreather Instructor standards for the prerequisites and requirements for this program.

Materials Required

Teaching any program with outdated materials is just asking for problems. The trainer must confirm that their materials are current and each instructor has the current materials with which to teach the program.

Instructor Trainer

- TDI Semi-closed Rebreather Diver Manual
- TDI Semi-closed Rebreather Knowledge Quest
- TDI Semi-closed Rebreather Instructor Guide
- TDI Semi-closed Rebreather PowerPoint Presentation®
- TDI Instructor Trainer Manual
- Unit specific manufacturer’s user manual

Instructor Candidate

- TDI Semi-closed Rebreather Diver Manual
- TDI Semi-closed Rebreather Diver Knowledge Quest



- TDI Semi-closed Rebreather Instructor Guide
- TDI Semi-closed Rebreather PowerPoint Presentation®
- Unit specific manufacturer’s user manual

Note: Prior to beginning the program the instructor candidate should review all instructor and diver materials and complete all knowledge quests and final exams so they are completely familiar with the subject matter and the support materials to teach the TDI Semi-closed Rebreather Diver program.

The topics to be covered are:

- Welcome and Course Orientation
- The TDI Instructor*
- Dive Leader Risk Management*
- Methods of Instruction*
- Business Side of Diving*
- Courses a TDI Semi-closed Rebreather Instructor Can Teach

*Core Topics: These core topics will be found in Part One of this manual; IT Information.

Welcome and Course Overview

.....

Paperwork

- Instructor Registration Form
- Personal Information



- Liability Release
- Medical Statement

Let's Get to Know Each Other

Professional Staff

Participants

- Your name?
- What type of technical diving experience do you have?
- Which technical diving activities interest you the most?
- Why are you interested in becoming a technical instructor?

About This Program

Course Objective

- Develop the appropriate knowledge and skills that are expected of every dive professional

Subject Areas

- The TDI Instructor
- Dive Leader Risk Management
- Methods of Instruction
- Business Side of Diving

Structure and Schedule

- Independent Study



- Classroom Presentations
- Confined Water Training
- Open Water Training

Required Equipment

- Items you'll need for this course

Any Questions?

The TDI Instructor

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 2-The SDI/TDI/ERDI Instructor

Dive Leader Risk Management

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 3-Dive Leader Risk Management



Methods of Instruction

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 4-Methods of Instruction

Business Side of Diving

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 5-Business of Diving

Teaching the TDI Semi-closed Rebreather Diver Program

.....

- Program overview
- Classroom requirements
 - Students are required to become familiar with: risks of semi-closed circuit rebreathers, pre-dive tests and checks, use of flow meters, scrubber packing, oxygen analysis, post-dive unit cleaning. Since this course may be the first time a diver has been on a rebreather, it is best to explain the differences between open circuit equipment and semi-closed circuit as well as their breathing characteristics. An Instructor must be able to demonstrate instructor level knowledge on all topics and skills in



the current TDI Semi-closed Circuit standards.

- Pool / confined water requirements

- While a pool / confined water session is not required, an instructor may take this opportunity to introduce divers to the differences of rebreather diving in a controlled environment or conduct a skill evaluation to help the students become better divers. This is the ideal setting to conduct buoyancy skills, trim, equipment configuration and loop drills.

- Open Water Requirements

- Four to Six dives with a minimum of 100 to 150 minutes of bottom time are required depending on unit. If this program is conducted in conjunction with other allowed courses, the four to six dives plus the required number of dives from the other program are required. For the SCR dives it is best to take divers progressively deeper so they get a slower introduction to rebreather diving. The first couple of dives can be started in shallower waters so divers get a sense of how the rebreather performs and the differences from open circuit diving. This also allows an opportunity for the instructor to monitor the comfort level and abilities of the diver.

- Materials

- Review all diver materials to make sure the instructor candidate is familiar with all diver materials and how they are supported by the instructor materials.

- Diver Materials

- Printed

- Required paperwork

- Discuss in detail how the instructor should complete the required paperwork

- The instructor candidate must be familiar with all forms and be able to answer any question a diver may have regarding the completion of those forms



- Diver Training Folder
- Waiver
- Medical Questionnaire
- Complete a thorough review of the appropriate TDI Instructor manual including:
 - How to conduct:
 - Academic sessions
 - Cover helpful hints on how to teach more involved subjects
 - Pool/ Confined water sessions (if one is conducted)
 - Helpful hints on:
 - How to teach skills
 - Conducting an update / skill evaluation
 - Possible problems an instructor may experience
 - How to deal with those problems
 - Open water sessions
 - Helpful hints on:
 - How to conduct skills in open water vs pool/confined
 - Possible problems an instructor may experience in open water
 - How to deal with those problems

List of tips on how to teach various aspects of this program include:

History and evolution of rebreathers – the most important part of rebreather history is to demonstrate to divers that the technology is not new and many people have tried and tested these products to ensure safety.



Practical mechanics of the system – because rebreathers are so drastically different from open circuit equipment it is good to explain exactly how a rebreather works and the differences to open circuit. Explain the constant flow of oxygen to replenish metabolized oxygen, how the scrubber scrubs gasses through chemical reaction and the exothermic reaction it has.

Review of nitrox – since nitrox is a prerequisite to this course, this should just be done as a review. If students will be using oxygen levels above 40% more time can be spent explaining those levels, 40-100%. At this point divers should be able to explain and understand a PO₂, variable PO₂s and set PO₂s.

Gas Physiology – this again is a review as the basics are covered in the open water diver course and again in the nitrox course. Covering the gases that circulate in the loop will be a very important discussion because in open circuit dives these are not as much of a concern. An important one here is a CO₂ breakthrough and how it affects the diver.

Formula work and metabolic consumption – divers understand as the workload increases so do their respirations but they may not understand how that affects them on a rebreather. Provide examples of metabolic rate and oxygen consumed at low and high rates. This is a concept they would have never been exposed to.

Dive tables – all tables previously covered in other courses need to be reviewed with the addition of the oxygen metabolic table.

Dive computers problem solving – it is encouraged that all divers use dive computers and further a nitrox computer. It should be explained that divers set their PO₂ or plan their PO₂ exposure by the adjusted metabolic rate and not the O₂ percentage in the source cylinder.

Dive planning – planning a rebreather dive is nothing like planning an open circuit dive so lots of time needs to be spent on this topic. Divers need to know that scrubber duration as well as oxygen flow rates play a big role in the limits of their dives. These are two things they will have never encountered.



Reading tables

EAD

EAN

PO2

CNS

Verifying cylinder content – the source cylinder(s) should be analyzed and labeled.

List of academic / pool-confined water / open water topics for candidate to present:

As well as the topics above the following skills topics should be presented.

Properly analyze gas mixture

Perform all pre-dive checks

Leak check and repair scenario

Counter lungs inspection and testing

Scrubber canister packing

Set-up and breakdown of unit

Bailout scenarios and recoveries

Proper cleaning of unit

O2 monitoring during dive

Scheduling Options for this program

Courses can be scheduled with a one to one ratio, as a group or scheduled in conjunction with other TDI courses. Each of these will require different time commitments and scheduling logistics. A course with one SCR diver will take less time than if combined with another TDI course with a group.



Overview

The TDI SCR Instructor program is comprised of classroom sessions and dives. One day should be allotted for the academic session with up to three full days for the dives.

If this program is taught with any of the other allowed instructor programs, two full days for the classroom should be scheduled and the appropriate amount of days for the dives if two dives per day are scheduled. There may be times when the course can be completed in less time but it is always good to allot an extra day or two for make-up time or weather.

Classroom

You will need various pieces of equipment normally used for SCR diving as well as a complete unit matching the one the diver will be certified on. The instructor must be able to demonstrate at instructor level quality all academic topics in the current TDI SCR Diver standards.

Two to three days of diving should be scheduled if the program is taught by itself. If it is taught in conjunction with any of the other accepted TDI Instructor programs, additional days will need to be scheduled for the dives considering two dives per day will be completed. It is always good practice to build in some extra time for dives so the instructor candidates can clear their schedule.

Knowledge Quest Review Questions if applicable

No instructor level Knowledge Quest is available for this program, although the candidate should complete the diver level Knowledge Quest so they are familiar with the information.

Final Exam

No instructor level final exam is available for this program, although the candidate should complete the diver level final exam so they are familiar with the information.







KISS GEM Level 1 Instructor

- ▶ Welcome and Course Overview
- ▶ The TDI Instructor
- ▶ Dive Leader Risk Management
- ▶ Methods of Instruction
- ▶ Business Side of Diving
- ▶ Teaching the TDI KISS GEM Level 1 Diver Program

The TDI KISS GEM Level 1 Instructor Program is a specific SCR instructor program based on the requirements of the unit and the manufacturer. If this is the first program an instructor is completing through TDI more time will need to be spent on the core topics listed below. Once an instructor has completed their initial TDI KISS GEM Level 1 program, or any initial TDI Instructor program, they will need only to focus on the course specific content for future programs.

Objectives

The object of this program is to:

- Introduce the instructor to TDI
- Introduce the candidate to the TDI Instructor Guide and Student materials
- Demonstrate how to use the TDI KISS GEM Level 1 materials to train a new diver



- Teach the instructor “How to Conduct” the TDI KISS GEM Level 1 Diver program
- Demonstrate how to register and certify a new KISS GEM Level 1 Diver

Prerequisites for TDI KISS GEM Level 1 Instructor Program

See the current TDI KISS GEM Level 1 Instructor standards for the prerequisites and requirements for this program.

Materials Required

Teaching any program with outdated materials is just asking for problems. The trainer must confirm that their materials are current and each instructor has the current materials with which to teach the program.

Instructor Trainer

- TDI Semi-closed Rebreather Diver Manual
- TDI Semi-closed Rebreather Knowledge Quest
- TDI Semi-closed Rebreather Instructor Guide
- TDI Semi-closed Rebreather PowerPoint Presentation®
- KISS GEM Level 1 manufacturer’s user manual
- TDI Instructor Trainer Manual

Instructor Candidate

- TDI Semi-closed Rebreather Diver Manual
- TDI Semi-closed Rebreather Diver Knowledge Quest
- TDI Semi-closed Rebreather Instructor Guide



- TDI Semi-closed Rebreather PowerPoint Presentation®
- KISS GEM Level 1 manufacturer’s user manual

Note: Prior to beginning the program the instructor candidate should review all instructor and diver materials and complete all knowledge quests and final exams so they are completely familiar with the subject matter and the support materials to teach the TDI KISS GEM Level 1 Diver program.

The topics to be covered are:

- Welcome and Course Orientation
- The TDI Instructor*
- Dive Leader Risk Management*
- Methods of Instruction*
- Business Side of Diving*
- Courses a TDI KISS GEM Level 1 Instructor Can Teach

*Core Topics: These core topics will be found in Part One of this manual; IT Information.

Welcome and Course Overview

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Paperwork

- Instructor Registration Form
- Personal Information
- Liability Release
- Medical Statement



Let's Get to Know Each Other

Professional Staff

Participants

- Your name?
- What type of technical diving experience do you have?
- Which technical diving activities interest you the most?
- Why are you interested in becoming a technical instructor?

About This Program

Course Objective

- Develop the appropriate knowledge and skills that are expected of every dive professional

Subject Areas

- The TDI Instructor
- Dive Leader Risk Management
- Methods of Instruction
- Business Side of Diving

Structure and Schedule

- Independent Study
- Classroom Presentations
- Confined Water Training
- Open Water Training



Required Equipment

- Items you'll need for this course

Any Questions?

The TDI Instructor

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 2-The SDI/TDI/ERDI Instructor

Dive Leader Risk Management

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 3-Dive Leader Risk Management

Methods of Instruction

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 4-Methods of Instruction



Business Side of Diving

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 5-Business of Diving

Teaching the TDI KISS GEM Level 1 Diver Program

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- Program overview
- Classroom requirements
 - Students are required to become familiar with: risks of semi-closed circuit rebreathers, pre-dive tests and checks, use of flow meters, scrubber packing, oxygen analysis, post-dive unit cleaning as they relate to the GEM. Since this course may be the first time a diver has been on a rebreather, it is best to explain the differences between open circuit equipment and semi-closed circuit as well as their breathing characteristics and how the GEM is different from other SCRs. An Instructor must be able to demonstrate instructor level knowledge on all topics and skills in the current TDI GEM Level 1 standards.
- Pool / confined water requirements
 - While a pool / confined water session is not required, an instructor may take this opportunity to introduce divers to the differences of rebreather diving in a controlled environment or conduct a skill evaluation to help the students become better divers. This is the ideal setting to conduct buoyancy skills, trim, equipment configuration and loop drills.
- Open Water Requirements



- Five dives with a minimum of 200 minutes of bottom time is required. If this program is conducted in conjunction with other allowed courses, the five dives plus the required number of dives from the other program is required. For the GEM dives it is best to take divers progressively deeper so they get a slower introduction to rebreather diving. The first couple of dives can be started in shallower waters so divers get a sense of how the rebreather performs and the differences from open circuit diving. This also allows an opportunity for the instructor to monitor the comfort level and abilities of the diver.
- Materials
 - Review all diver materials to make sure the instructor candidate is familiar with all diver materials and how they are supported by the instructor materials.
 - Diver Materials
 - Printed
- Required paperwork
 - Discuss in detail how the instructor should complete the required paperwork
 - The instructor candidate must be familiar with all forms and be able to answer any question a diver may have regarding the completion of those forms
 - Diver Training Folder
 - Waiver
 - Medical Questionnaire
- Complete a thorough review of the appropriate TDI Instructor manual including:
 - How to conduct:
 - Academic sessions



- Cover helpful hints on how to teach more involved subjects
- Pool/ Confined water sessions (if one is conducted)
 - Helpful hints on:
 - How to teach skills
 - Conducting an update / skill evaluation
 - Possible problems an instructor may experience
 - How to deal with those problems
 - Open water sessions
 - Helpful hints on:
 - How to conduct skills in open water vs pool/confined
 - Possible problems an instructor may experience in open water
 - How to deal with those problems

List of tips on how to teach various aspects of this program include:

History and evolution of rebreathers – the most important part of rebreather history is to demonstrate to divers that the technology is not new and many people have tried and tested these products to ensure safety. The GEM is an important part of the history as it is an adaptation to prior SCRs in that it utilizes standard open circuit cylinders commonly found at diving destinations.

Practical mechanics of the system – because rebreathers are so drastically different from open circuit equipment it is good to explain exactly how a rebreather works and the differences to open circuit. Explain the constant flow of oxygen to replenish metabolized oxygen, how the scrubber scrubs gasses through chemical reaction and the exothermic reaction it has. Also how the GEM is adapted to any standard cylinder is also important to discuss.

Review of nitrox – since nitrox is a prerequisite to this course, this



should just be done as a review. If students will be using oxygen levels above 40% more time can be spent explaining those levels, 40-100%. At this point divers should be able to explain and understand a PO₂, variable PO₂s and set PO₂s.

Gas Physiology – this again is a review as the basics are covered in the open water diver course and again in the nitrox course. Covering the gases that circulate in the loop will be a very important discussion because in open circuit dives these are not as much of a concern. An important one here is a CO₂ breakthrough and how it affects the diver.

Formula work and metabolic consumption – divers understand as the workload increases so do their respirations but they may not understand how that affects them on a rebreather. Provide examples of metabolic rate and oxygen consumed at low and high rates. This is a concept they would have never been exposed to.

Dive tables – all tables previously covered in other courses need to be reviewed with the addition of the oxygen metabolic table.

Dive computers problem solving – it is encouraged that all divers use dive computers and further a nitrox computer. It should be explained that divers set their PO₂ or plan their PO₂ exposure by the adjusted metabolic rate and not the O₂ percentage in the source cylinder.

Dive planning – planning a rebreather dive is nothing like planning an open circuit dive so lots of time needs to be spent on this topic. Divers need to know that scrubber duration as well as oxygen flow rates play a big role in the limits of their dives. These are two things they will have never encountered.

Reading tables

EAD

EAN

PO₂

CNS

Analyzing cylinders



Reading tables

EAD

EAN

PO2

CNS

Verifying cylinder content – the source cylinder should be analyzed and labeled.

List of academic / pool-confined water / open water topics for candidate to present:

As well as the topics above the following skills topics should be presented.

Properly analyze gas mixture

Perform all pre-dive checks

Leak check and repair scenario

Counter lungs inspection and testing

Scrubber canister packing

Set-up and breakdown of unit

Bailout scenarios and recoveries

Proper cleaning of unit

O2 monitoring during dive

Advantages and Disadvantages of KISS GEM Level 1

Use of oxygen analyzers



Scheduling Options for this program

Courses can be scheduled with a one to one ratio, as a group or scheduled in conjunction with other TDI courses. Each of these will require different time commitments and scheduling logistics. A course with one GEM diver will take less time than if combined with another TDI course with a group.

Overview

The TDI GEM Level 1 Instructor program is comprised of classroom sessions and dives. One day should be allotted for the academic session with up to three full days for the dives.

If this program is taught with any of the other allowed instructor programs, two full days for the classroom should be scheduled and the appropriate amount of days for the dives if two dives per day are scheduled. There may be times when the course can be completed in less time but it is always good to allot an extra day or two for make-up time or weather.

Classroom

You will need various pieces of equipment normally used for SCR diving as well as a complete GEM unit. The instructor must be able to demonstrate to instructor level quality all academic topics in the current TDI GEM Level 1 Standards.

Dives

One confined water session of 60 minutes and five open water dives with a minimum of 200 minutes accumulated bottom time are required for the instructor course. These sessions could be completed over 2 days but it is best to build in an extra day for delays and make-up.



Knowledge Quest Review Questions if applicable

No instructor level Knowledge Quest is available for this program, although the candidate should complete the diver level Knowledge Quest so they are familiar with the information.

Final Exam

No instructor level final exam is available for this program, although the candidate should complete the diver level final exam so they are familiar with the information.





Closed Circuit Rebreather Air Diluent Instructor Program

- ▶ Welcome and Course Overview
- ▶ The TDI Instructor
- ▶ Dive Leader Risk Management
- ▶ Methods of Instruction
- ▶ Business Side of Diving
- ▶ Teaching the TDI Closed Circuit Rebreather Air Diluent Diver Program

The TDI Closed Circuit Rebreather Air Diluent Instructor Program is the first CCR instructor level TDI offers. Once the instructor completes this program and wishes to continue to the next CCR level they will have learned the basics of CCR use. If this is the first program an instructor is completing through TDI more time will need to be spent on the core topics listed below. Once an instructor has completed their initial TDI Closed Circuit Rebreather Air Diluent program, or any initial TDI Instructor program, they will need only to focus on the course specific content for future programs.

Objectives

The object of this program is to:

- Introduce the instructor to TDI
- Introduce the candidate to the TDI Instructor Guide and Student materials

- Demonstrate how to use the TDI Closed Circuit Rebreather Air Diluent materials to train a new diver
- Teach the instructor “How to Conduct” the TDI Closed Circuit Rebreather Air Diluent Diver program
- Demonstrate how to register and certify a new Closed Circuit Rebreather Air Diluent Diver

Prerequisites for TDI Closed Circuit Rebreather Air Diluent Instructor Program

See the current TDI Closed Circuit Rebreather Air Diluent Instructor standards for the prerequisites and requirements for this program.

Materials Required

Teaching any program with outdated materials is just asking for problems. The trainer must confirm that their materials are current and each instructor has the current materials with which to teach the program.

Instructor Trainer

- TDI Diving Rebreathers Diver Manual
- TDI Diving Rebreathers Knowledge Quest
- TDI Diving Rebreathers Instructor Guide
- TDI Diving Rebreathers PowerPoint Presentation®
- TDI Instructor Trainer Manual
- Unit specific manufacturer’s user manual

Instructor Candidate

- TDI Diving Rebreathers Diver Manual
- TDI Diving Rebreathers Diver Knowledge Quest



- TDI Diving Rebreathers Instructor Guide
- TDI Diving Rebreathers PowerPoint Presentation®
- Unit specific manufacturer's user manual

Note: Prior to beginning the program the instructor candidate should review all instructor and diver materials and complete all knowledge quests and final exams so they are completely familiar with the subject matter and the support materials to teach the TDI Closed Circuit Rebreather Air Diluent Diver program.

The topics to be covered are:

- Welcome and Course Orientation
- The TDI Instructor*
- Dive Leader Risk Management*
- Methods of Instruction*
- Business Side of Diving*
- Courses a TDI Closed Circuit Rebreather Air Diluent Instructor Can Teach

*Core Topics: These core topics will be found in Part One of this manual; IT Information.



Welcome and Course Overview

.....

Paperwork

- Instructor Registration Form
- Personal Information
- Liability Release
- Medical Statement

Let's Get to Know Each Other

Professional Staff

Participants

- Your name?
- What type of technical diving experience do you have?
- Which technical diving activities interest you the most?
- Why are you interested in becoming a technical instructor?

About This Program

Course Objective

- Develop the appropriate knowledge and skills that are expected of every dive professional



Subject Areas

- The TDI Instructor
- Dive Leader Risk Management
- Methods of Instruction
- Business Side of Diving

Structure and Schedule

- Independent Study
- Classroom Presentations
- Confined Water Training
- Open Water Training

Required Equipment

- Items you'll need for this course

Any Questions?

The TDI Instructor

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 2-The SDI/TDI/ERDI Instructor



Dive Leader Risk Management

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 3-Dive Leader Risk Management

Methods of Instruction

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 4-Methods of Instruction

Business Side of Diving

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 5-Business of Diving

Teaching the TDI Closed Circuit Rebreather Air Diluent Diver Program

- Program overview
 - Classroom requirements
 - Students are required to become familiar with: risks of closed circuit rebreathers, pre-dive tests and checks, scrubber packing, oxygen analysis, post-dive unit cleaning as they relate to the specific unit. Since this course may be the



first time a diver has been on a rebreather, it is best to explain the differences between open circuit equipment and closed circuit as well as their breathing characteristics and how all CCRs are not built or designed the same. An Instructor must be able to demonstrate instructor level knowledge on all topics and skills in the current TDI CCR Air Diluent standards.

- Pool / confined water requirements

- 60 minutes of pool / confined water training is required. An instructor should take this opportunity to introduce divers to required skills for CCR diving, the differences of rebreather diving in a controlled environment or conduct a basic skill evaluation to help the students become better divers. This is the ideal setting to conduct buoyancy skills, trim and equipment configuration.

- Open Water Requirements

- Seven dives with a minimum of 420 minutes of bottom time are required. If this program is conducted in conjunction with other allowed courses, the seven dives plus the required number of dives from the other program are required. For the dives it is best to take divers progressively deeper so they get a slower introduction to rebreather diving. The first couple of dives can be started in shallower waters so divers get a sense of how the rebreather performs and the differences from open circuit diving. This also allows an opportunity for the instructor to monitor the comfort level and abilities of the diver.

- Materials

- Review all diver materials to make sure the instructor candidate is familiar with all diver materials and how they are supported by the instructor materials.

- Diver Materials

- Online



- Printed
- Required paperwork
 - Discuss in detail how the instructor should complete the required paperwork
 - The instructor candidate must be familiar with all forms and be able to answer any question a diver may have regarding the completion of those forms
 - Diver Training Folder
 - Waiver
 - Medical Questionnaire
- Complete a thorough review of the appropriate TDI Instructor manual including:
 - How to conduct:
 - Academic sessions
 - Cover helpful hints on how to teach more involved subjects
 - Pool/ Confined water sessions (if one is conducted)
 - Helpful hints on:
 - How to teach skills
 - Conducting an update / skill evaluation
 - Possible problems an instructor may experience
 - How to deal with those problems
 - Open water sessions
 - Helpful hints on:
 - How to conduct skills in open water vs pool/confined
 - Possible problems an instructor may experience in open water
 - How to deal with those problems



List of tips on how to teach various aspects of this program include:

History and evolution of rebreathers – the most important part of rebreather history is to demonstrate to divers that the technology is not new and many people have tried and tested these products to ensure safety.

Comparison of OC, SCR and CCR – for this topic the instructor should give a review of the major differences of the three systems and the benefits and risks of each. The objective should be to get the diver in the right mind-set for CCR diving.

Practical mechanics of the system – because rebreathers are so drastically different from open circuit equipment it is good to explain exactly how a rebreather works and the differences to open circuit. Explain the injection of oxygen (electronic or manual) to replenish metabolized oxygen, how the scrubber scrubs gasses through chemical reaction and the exothermic reaction it has.

Gas Physiology – this again is a review as the basics are covered in the open water diver course and again in the nitrox course. Covering the gases that circulate in the loop will be a very important discussion because in open circuit dives these are not as much of a concern. An important one here is a CO₂ breakthrough and how it affects the diver.

Formula work and metabolic consumption – divers understand as the workload increases so do their respirations but they may not understand how that affects them on a rebreather. Provide examples of metabolic rate and oxygen consumed at low and high rates. This is a concept they would have never been exposed to.

Proper scrubber packing – since scrubber canisters are unique to each unit it is important to cover the specifics of the canister for the unit they will be certified on. Other topics would include: pre-packed and other designs of self-packing canisters.

Electronic or manual system design – cover the differences in these two system designs and the user interface as well as locations for manual injection buttons for O₂ and diluent gasses.

Dive tables – all tables previously covered in other courses need to be



reviewed with the addition of the oxygen metabolic table.

Dive computers problem solving – it is encouraged that all divers use dive computers and further a constant PO₂ computer. Systems equipped with dive computers should be covered in great detail.

Dive planning – planning a rebreather dive is nothing like planning an open circuit dive so lots of time needs to be spent on this topic. Divers need to know that scrubber duration as well as oxygen supply play a big role in the limits of their dives. These are two things they will have never encountered.

Emergency procedures – for this topic divers should learn both self and buddy emergency procedures, such as: signs and symptoms of CO₂ build up, on-board and off-board bailout options, loss of O₂ supply, loss of diluent supply, system flood to name a few.

List of academic / pool-confined water / open water topics for candidate to present:

As well as the topics above the following skills topics should be presented.

Pre-dive checks

Verify diluent and oxygen

Demonstrate correct pre-dive planning

Emergency procedures

Electronic system monitoring

Constant loop volume management

Post-dive cleaning of unit

Diver Maintenance of unit

Scheduling Options for this program

Courses can be scheduled with a one to one ratio, as a group or scheduled in conjunction with other TDI courses. Each of these will require different time commitments and scheduling logistics. A course with one air diluent CCR diver will take less time than if combined with another TDI course with a group.



Overview

The TDI Air Diluent CCR Instructor program is comprised of classroom sessions, confined water and dives. One day should be allotted for the academic session with up to three full days for the dives.

If this program is taught with any of the other allowed instructor programs, two full days for the classroom should be scheduled and the appropriate amount of days for the dives if two dives per day are scheduled. There may be times when the course can be completed in less time but it is always good to allot an extra day or two for make-up time or weather.

Classroom

You will need various pieces of equipment normally used for CCR diving as well as a complete unit that the diver will be certified to dive on. The instructor must be able to demonstrate to instructor level quality all academic topics in the current TDI CCR Air Diluent Diver Standards

Dives

Four dives are required for the instructor course. These sessions could be completed over three days but it is best to build in an extra day for delays and make-up.

Knowledge Quest Review Questions if applicable

No instructor level Knowledge Quest is available for this program, although the candidate should complete the diver level Knowledge Quest so they are familiar with the information.

Final Exam

No instructor level final exam is available for this program, although the candidate should complete the diver level final exam so they are familiar with the information.







Closed Circuit Rebreather Air Diluent Decompression Procedures Instructor Program

- Welcome and Course Overview
- The TDI Instructor
- Dive Leader Risk Management
- Methods of Instruction
- Business Side of Diving
- Teaching the TDI Closed Circuit Rebreather Air Diluent Decompression Procedures Diver Program

The TDI Closed Circuit Rebreather Air Diluent Decompression Procedures Instructor Program is typically an upgrade from the TDI CCR Air Diluent Instructor rating. This may also be the candidates first CCR instructor course provided they meet the prerequisite open circuit requirements. If this is the first program an instructor is completing through TDI more time will need to be spent on the core topics listed below. Once an instructor has completed their initial TDI Closed Circuit Rebreather Air Diluent Decompression Procedures program, or any initial TDI Instructor program, they will need only to focus on the course specific content for future programs.

Objectives

The object of this program is to:

- Introduce the instructor to TDI
- Introduce the candidate to the TDI Instructor Guide and Student materials
- Demonstrate how to use the TDI Closed Circuit Rebreather Air Diluent Decompression Procedures materials to train a new diver
- Teach the instructor “How to Conduct” the TDI Closed Circuit Rebreather Air Diluent Decompression Procedures Diver program
- Demonstrate how to register and certify a new Closed Circuit Rebreather Air Diluent Decompression Procedures diver

Prerequisites for TDI Closed Circuit Rebreather Air Diluent Decompression Procedures Instructor Program

See the current TDI Closed Circuit Rebreather Air Diluent Decompression Procedures Instructor standards for the prerequisites and requirements for this program.

Materials Required

Teaching any program with outdated materials is just asking for problems. The trainer must confirm that their materials are current and each instructor has the current materials with which to teach the program.

Instructor Trainer

- TDI Diving Rebreathers Diver Manual
- TDI Diving Rebreathers Knowledge Quest



- TDI Diving Rebreathers Instructor Guide
- TDI Diving Rebreathers PowerPoint Presentation®
- TDI Instructor Trainer Manual
- Unit specific manufacturer's user manual

Instructor Candidate

- TDI Diving Rebreathers Diver Manual
- TDI Diving Rebreathers Diver Knowledge Quest
- TDI Diving Rebreathers Instructor Guide
- TDI Diving Rebreathers PowerPoint Presentation®
- Unit specific manufacturer's user manual

Note: Prior to beginning the program the instructor candidate should review all instructor and diver materials and complete all knowledge quests and final exams so they are completely familiar with the subject matter and the support materials to teach the TDI Closed Circuit Rebreather Air Diluent Decompression Procedures Diver program.

The topics to be covered are:

- Welcome and Course Orientation
- The TDI Instructor*
- Dive Leader Risk Management*
- Methods of Instruction*
- Business Side of Diving*
- Courses a TDI Closed Circuit Rebreather Air Diluent Decompression Instructor Can Teach

*Core Topics: These core topics will be found in Part One of this manual; IT Information.



Welcome and Course Overview

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Paperwork

- Instructor Registration Form
- Personal Information
- Liability Release
- Medical Statement

Let's Get to Know Each Other

Professional Staff

Participants

- Your name?
- What type of technical diving experience do you have?
- Which technical diving activities interest you the most?
- Why are you interested in becoming a technical instructor?

About This Program

Course Objective

- Develop the appropriate knowledge and skills that are expected of every dive professional



Subject Areas

- The TDI Instructor
- Dive Leader Risk Management
- Methods of Instruction
- Business Side of Diving

Structure and Schedule

- Independent Study
- Classroom Presentations
- Confined Water Training
- Open Water Training

Required Equipment

- Items you'll need for this course

Any Questions?

The TDI Instructor

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 2-The SDI/TDI/ERDI Instructor



Dive Leader Risk Management

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 3-Dive Leader Risk Management

Methods of Instruction

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 4-Methods of Instruction

Business Side of Diving

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 5-Business of Diving



Teaching the TDI Closed Circuit Rebreather Air Diluent Decompression Procedures Diver Program

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- Program overview

- Classroom requirements

- Students are required to become familiar with: risks of closed circuit rebreather decompression diving, pre-dive tests and checks, scrubber packing, oxygen analysis, post-dive unit cleaning as they relate to the specific unit. Since this course may be the first time a diver has been on a rebreather, it is best to explain the differences between open circuit equipment and closed circuit as well as their breathing characteristics and how all CCRs are not built or designed the same. For divers who already hold a unit specific CCR diver certification, additional requirements for decompression diving on CCRs need to be covered. An Instructor must be able to demonstrate instructor level knowledge on all topics and skills in the current TDI CCR Air Diluent Decompression Procedures Diver standards.

- Pool / confined water requirements

- 60 minutes of pool / confined water training is required. An instructor should take this opportunity to introduce divers to required skills for CCR decompression diving, the differences of rebreather diving in a controlled environment or conduct a basic skill evaluation to help the students become better divers. This is the ideal setting to conduct buoyancy skills, trim and off-board equipment configuration.



- Open Water Requirements
 - Seven dives with a minimum of 420 minutes of bottom time are required. If this program is conducted in conjunction with other allowed courses, the seven dives plus the required number of dives from the other program are required. For the dives it is best to take divers progressively deeper so they get a slower introduction to rebreather diving. The first couple of dives can be started in shallower waters so divers get a sense of how the rebreather performs and the differences from open circuit diving. This also allows an opportunity for the instructor to monitor the comfort level and abilities of the diver.
- Materials
 - Review all diver materials to make sure the instructor candidate is familiar with all diver materials and how they are supported by the instructor materials.
 - Diver Materials
 - Online
 - Printed
- Required paperwork
 - Discuss in detail how the instructor should complete the required paperwork
 - The instructor candidate must be familiar with all forms and be able to answer any question a diver may have regarding the completion of those forms
 - Diver Training Folder
 - Waiver
 - Medical Questionnaire
- Complete a thorough review of the appropriate TDI Instructor manual



including:

- How to conduct:
 - Academic sessions
 - Cover helpful hints on how to teach more involved subjects
 - Pool/ Confined water sessions
 - Helpful hints on:
 - How to teach skills
 - Conducting an update / skill evaluation
 - Possible problems an instructor may experience
 - How to deal with those problems
 - Open water sessions
 - Helpful hints on:
 - How to conduct skills in open water vs pool/confined
 - Possible problems an instructor may experience in open water
 - How to deal with those problems

List of tips on how to teach various aspects of this program include:

History and evolution of rebreathers – the most important part of rebreather history is to demonstrate to divers that the technology is not new and many people have tried and tested these products to ensure safety.

Comparison of OC, SCR and CCR – for this topic the instructor should give a review of the major differences of the three systems and the benefits and risks of each. The objective should be to get the diver in the right mindset for CCR diving.



Practical mechanics of the system – because rebreathers are so drastically different from open circuit equipment it is good to explain exactly how a rebreather works and the differences to open circuit. Explain the injection of oxygen (electronic or manual) to replenish metabolized oxygen, how the scrubber scrubs gasses through chemical reaction and the exothermic reaction it has.

Gas Physiology – this again is a review as the basics are covered in the open water diver course and again in the nitrox course. Covering the gases that circulate in the loop will be a very important discussion because in open circuit dives these are not as much of a concern. An important one here is a CO₂ breakthrough and how it affects the diver.

Formula work and metabolic consumption – divers understand as the workload increases so do their respirations but they may not understand how that affects them on a rebreather. Provide examples of metabolic rate and oxygen consumed at low and high rates. This is a concept they would have never been exposed to.

Proper scrubber packing – since scrubber canisters are unique to each unit it is important to cover the specifics of the canister for the unit they will be certified on. Other topics would include: pre-packed and other designs of self packing canisters.

Electronic or manual system design – cover the differences in these two system designs and the user interface as well as locations for manual injection buttons for O₂ and diluent gasses.

Dive tables – all tables previously covered in other courses need to be reviewed with the addition of the oxygen metabolic table.

Dive computers problem solving – it is encouraged that all divers use dive computers and further a constant PO₂ computer. Systems equipped with dive computers should be covered in great detail.

Dive planning – planning a rebreather dive is nothing like planning an open circuit dive so lots of time needs to be spent on this topic. Divers need to know that scrubber duration as well as oxygen supply play a big role in the



limits of their dives. These are two things they will have never encountered. Another point would be the use of off-board gasses for decompression or contingency planning.

Emergency procedures – for this topic divers should learn both self and buddy emergency procedures, such as: signs and symptoms of CO₂ build up, on-board and off-board bailout options, loss of O₂ supply, loss of diluent supply, system flood to name a few.

List of academic / pool-confined water / open water topics for candidate to present:

As well as the topics above the following skills topics should be presented.

Pre-dive checks

Verify diluent and oxygen

Demonstrate correct pre-dive planning

Emergency procedures

Electronic system monitoring

Constant loop volume management

Post-dive cleaning of unit

Diver Maintenance of unit

Scheduling Options for this program

Courses can be scheduled with a one to one ratio, as a group or scheduled in conjunction with other TDI courses. Each of these will require different time commitments and scheduling logistics. A course with one air diluent deco CCR diver will take less time than if combined with another TDI course with a group.



Overview

The TDI Air Diluent Decompression Procedures CCR Instructor program is comprised of classroom sessions, confined water and dives. One day should be allotted for the academic session with up to three full days for the dives.

If this program is taught with any of the other allowed instructor programs, two full days for the classroom should be scheduled and the appropriate amount of days for the dives if two dives per day are scheduled. There may be times when the course can be completed in less time but it is always good to allot an extra day or two for make-up time or weather.

Classroom

You will need various pieces of equipment normally used for CCR decompression diving as well as a complete unit that the diver will be certified to dive on. The instructor must be able to demonstrate to instructor level quality all academic topics in the current TDI CCR Air Diluent Decompression Procedures Diver Standards.

Dives

Four dives are required for the instructor course. These sessions could be completed over three days but it is best to build in an extra day for delays and make-up.

Knowledge Quest Review Questions if applicable

No instructor level Knowledge Quest is available for this program, although the candidate should complete the diver level Knowledge Quest so they are familiar with the information.

Final Exam

No instructor level final exam is available for this program, although the candidate should complete the diver level final exam so they are familiar with the information.





Closed Circuit Rebreather Mixed Gas Instructor Program

- ▶ Welcome and Course Overview
- ▶ The TDI Instructor
- ▶ Dive Leader Risk Management
- ▶ Methods of Instruction
- ▶ Business Side of Diving
- ▶ Teaching the TDI Closed Circuit Rebreather Mixed Gas Diver Program

The TDI Closed Circuit Rebreather Mixed Gas Instructor Program is typically an upgrade from the TDI CCR Air Diluent Decompression Procedures instructor rating. If this is the first program an instructor is completing through TDI more time will need to be spent on the core topics listed below. Once an instructor has completed their initial TDI Closed Circuit Rebreather Mixed Gas program, or any initial TDI Instructor program, they will need only to focus on the course specific content for future programs.

Objectives

The object of this program is to:

- Introduce the instructor to TDI
- Introduce the candidate to the TDI Instructor Guide and Student materials

- Demonstrate how to use the TDI Closed Circuit Rebreather Mixed Gas materials to train a new diver
- Teach the instructor “How to Conduct” the TDI Closed Circuit Rebreather Mixed Gas Diver program
- Demonstrate how to register and certify a new Closed Circuit Rebreather Mixed Gas Diver

Prerequisites for TDI Closed Circuit Rebreather Mixed Gas Instructor Program

See the current TDI Closed Circuit Rebreather Mixed Gas Instructor standards for the prerequisites and requirements for this program.

Materials Required

Teaching any program with outdated materials is just asking for problems. The trainer must confirm that their materials are current and each instructor has the current materials with which to teach the program.

Instructor Trainer

- TDI Diving Rebreathers Diver Manual
- TDI Diving Rebreathers Knowledge Quest
- TDI Diving Rebreathers Instructor Guide
- TDI Diving Rebreathers PowerPoint Presentation®
- TDI Instructor Trainer Manual
- Unit specific manufacturer’s user manual

Instructor Candidate

- TDI Diving Rebreathers Diver Manual
- TDI Diving Rebreathers Diver Knowledge Quest



- TDI Diving Rebreathers Instructor Guide
- TDI Diving Rebreathers PowerPoint Presentation®
- Unit specific manufacturer’s user manual

Note: Prior to beginning the program the instructor candidate should review all instructor and diver materials and complete all knowledge quests and final exams so they are completely familiar with the subject matter and the support materials to teach the TDI Closed Circuit Rebreather Mixed Gas Diver program.

The topics to be covered are:

- Welcome and Course Orientation
- The TDI Instructor*
- Dive Leader Risk Management*
- Methods of Instruction*
- Business Side of Diving*
- Courses a TDI Closed Circuit Rebreather Mixed Gas Instructor Can Teach

*Core Topics: These core topics will be found in Part One of this manual; IT Information.

Welcome and Course Overview

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Paperwork

- Instructor Registration Form



- Personal Information
- Liability Release
- Medical Statement

Let's Get to Know Each Other

Professional Staff

Participants

- Your name?
- What type of technical diving experience do you have?
- Which technical diving activities interest you the most?
- Why are you interested in becoming a technical instructor?

About This Program

Course Objective

- Develop the appropriate knowledge and skills that are expected of every dive professional

Subject Areas

- The TDI Instructor
- Dive Leader Risk Management
- Methods of Instruction
- Business Side of Diving



Structure and Schedule

- Independent Study
- Classroom Presentations
- Confined Water Training
- Open Water Training

Required Equipment

- Items you'll need for this course

Any Questions?

The TDI Instructor

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 2-The SDI/TDI/ERDI Instructor

Dive Leader Risk Management

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 3-Dive Leader Risk Management



Methods of Instruction

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 4-Methods of Instruction

Business Side of Diving

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 5-Business of Diving

Teaching the TDI Closed Circuit Rebreather Mixed Gas Diver Program

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- Program overview
 - Classroom requirements
 - Students are required to become familiar with: risks of closed circuit rebreather mixed gas diving, pre-dive tests and checks, scrubber packing, oxygen and diluent analysis, post-dive unit cleaning as they relate to the specific unit. Since divers already hold a unit specific CCR diver certification, additional requirements for mixed gas diving on CCRs need to be covered.



An Instructor must be able to demonstrate instructor level knowledge on all topics and skills in the current TDI CCR Mixed Gas Diver standards.

- Pool / confined water requirements

- While a pool / confined water session is not required. An instructor may take this opportunity to introduce divers to the differences of mixed gas rebreather diving and the additional equipment needed in a controlled environment or conduct a skill evaluation to help the students become better divers. This is the ideal setting to conduct buoyancy skills, trim, equipment configuration and loop drills.

- Open Water Requirements

- Six dives with a minimum of 360 minutes of bottom time are required. If this program is conducted in conjunction with other allowed courses, the six dives plus the required number of dives from the other program are required. For the dives it is best to take divers progressively deeper so they get a slower introduction to mixed gas rebreather diving. The first couple of dives can be started in shallower waters so divers get a sense of how the rebreather performs and the dive computers when switched to mixed gas. It is also best to not obligate the diver to decompression in the first few dives but rather to perform simulated decompression. This also allows an opportunity for the instructor to monitor the comfort level and abilities of the diver.

- Materials

- Review all diver materials to make sure the instructor candidate is familiar with all diver materials and how they are supported by the instructor materials. Instructors may use any materials that convey the knowledge needed to conduct CCR mixed gas dives.*

*At the time of printing there were no TDI materials, diver or instructor, available for this course. Should TDI publish materials they will be required for use.



- Diver Materials
 - Printed
- Required paperwork
 - Discuss in detail how the instructor should complete the required paperwork
 - The instructor candidate must be familiar with all forms and be able to answer any question a diver may have regarding the completion of those forms
 - Diver Training Folder
 - Waiver
 - Medical Questionnaire
- Complete a thorough review of the appropriate TDI Instructor manual including:
 - How to conduct:
 - Academic sessions
 - Cover helpful hints on how to teach more involved subjects
 - Pool/ Confined water sessions
 - Helpful hints on:
 - How to teach skills
 - Conducting an update / skill evaluation
 - Possible problems an instructor may experience
 - How to deal with those problems
 - Open water sessions
 - Helpful hints on:
 - How to conduct skills in open water vs pool/confined



- Possible problems an instructor may experience in open water
- How to deal with those problems

List of tips on how to teach various aspects of this program include:

Gas Physiology – this is a review as the basics were covered in the CCR air diluent diver course with the additional information on helium. Covering the gases that circulate in the loop will be a very important discussion because of the effects they have on decompression. An important one here is a CO₂ breakthrough and how it affects the diver.

Formula work and metabolic consumption – divers understand as the workload increases so do their respirations but they may not understand how that affects them on a rebreather. Provide examples of metabolic rate and oxygen consumed at low and high rates. This is a concept they would have never been exposed to.

Dive tables – all tables previously covered in other courses need to be reviewed with the addition of the oxygen metabolic table.

Equipment maintenance – Dives for this course and certification will be much longer so proper system maintenance needs to be emphasized.

Dive computers problem solving – it is encouraged that all divers use dive computers and further a constant PO₂ computer. Systems equipped with dive computers should be covered in great detail.

Dive planning – planning a mixed gas rebreather dive is different from planning an air diluent CCR dive so time needs to be spent on this topic. Another point would be the use of off-board gasses for decompression, contingency planning or diluent.

Emergency procedures – for this topic divers should learn both self and buddy emergency procedures, such as: signs and symptoms of CO₂ build up, on-board and off-board bailout options, loss of O₂ supply, loss of diluent supply, system flood to name a few.



List of academic / pool-confined water / open water topics for candidate to present:

As well as the topics above the following skills topics should be presented.

Pre-dive checks

Verify diluent and oxygen

Demonstrate correct pre-dive planning

Emergency procedures

Electronic system monitoring

Constant loop volume management

Demonstration of decompression stops

Post-dive cleaning of unit

Diver Maintenance of unit

Scheduling Options for this Program

Courses can be scheduled with a one to one ratio, as a group or scheduled in conjunction with other TDI courses. Each of these will require different time commitments and scheduling logistics. A course with one mixed gas CCR diver will take less time than if combined with another TDI course with a group.

Overview

The TDI Mixed Gas CCR Instructor program is comprised of classroom sessions and dives. One day should be allotted for the academic session with



up to three full days for the dives.

If this program is taught with any of the other allowed instructor programs, two full days for the classroom should be scheduled and the appropriate amount of days for the dives if two dives per day are scheduled. There may be times when the course can be completed in less time but it is always good to allot an extra day or two for make-up time or weather.

Classroom

You will need various pieces of equipment normally used for CCR mixed gas diving as well as a complete unit that the diver will be certified to dive on. The instructor must be able to demonstrate to instructor level quality all academic topics in the current TDI CCR Mixed Gas Diver Standards.

Dives

Four dives are required for the instructor course. These sessions could be completed over three days but it is best to build in an extra day for delays and make-up.

Knowledge Quest Review Questions if applicable

No instructor level Materials are available for this course. Candidates must be familiar with all the materials the IT presents to them.

Final Exam

No instructor level final exam is available for this program, although the candidate can complete the diver level final exam from the CCR Air Diluent Deco course and the exam from the TDI trimix open circuit course so they are familiar with the information.

*At the time of printing there were no TDI materials, diver or instructor, available for this course. Should TDI publish materials they will be required for use.







Closed Circuit Rebreather Advanced Mix Gas Instructor Program

- ▶ Welcome and Course Overview
- ▶ The TDI Instructor
- ▶ Dive Leader Risk Management
- ▶ Methods of Instruction
- ▶ Business Side of Diving
- ▶ Teaching the Closed Circuit Rebreather
Advanced Mix Gas Instructor Program

The TDI Closed Circuit Rebreather Advanced Mix Gas Instructor Program is typically an upgrade from the TDI CCR Mixed Gas Instructor rating. If this is the first program an instructor is completing through TDI more time will need to be spent on the core topics listed below. Once an instructor has completed their initial TDI Closed Circuit Rebreather Advanced Mix Gas program, or any initial TDI Instructor program, they will need only to focus on the course specific content for future programs.

Objectives

The object of this program is to:

- Introduce the instructor to TDI
- Introduce the candidate to the TDI Instructor Guide and Student materials
- Demonstrate how to use the TDI Closed Circuit Rebreather Advanced Mix Gas materials to train a new diver
- Teach the instructor “How to Conduct” the TDI Closed Circuit Rebreather Advanced Mix Gas Diver program
- Demonstrate how to register and certify a new Closed Circuit Rebreather Advanced Mix Gas Diver

Prerequisites for TDI Closed Circuit Rebreather Advanced Mix Gas Instructor Program

See the current TDI Closed Circuit Rebreather Advanced Mix Gas Instructor standards for the prerequisites and requirements for this program.

Materials Required

Teaching any program with outdated materials is just asking for problems. The trainer must confirm that their materials are current and each instructor has the current materials with which to teach the program.

Instructor Trainer

- TDI Diving Rebreathers Diver Manual
- TDI Diving Rebreathers Knowledge Quest
- TDI Diving Rebreathers Instructor Guide
- TDI Diving Rebreathers PowerPoint Presentation®



- TDI Instructor Trainer Manual
- Unit specific manufacturer's user manual

Instructor Candidate

- TDI Diving Rebreathers Diver Manual
- TDI Diving Rebreathers Diver Knowledge Quest
- TDI Diving Rebreathers Instructor Guide
- TDI Diving Rebreathers PowerPoint Presentation®
- Unit specific manufacturer's user manual

Note: Prior to beginning the program the instructor candidate should review all instructor and diver materials and complete all knowledge quests and final exams so they are completely familiar with the subject matter and the support materials to teach the TDI Closed Circuit Rebreather Advanced Mix Gas Diver program.

The topics to be covered are:

- Welcome and Course Orientation
- The TDI Instructor*
- Dive Leader Risk Management*
- Methods of Instruction*
- Business Side of Diving*
- Courses a TDI Closed Circuit Rebreather Advanced Mix Gas Instructor Can Teach

*Core Topics: These core topics will be found in Part One of this manual; IT Information.



Welcome and Course Overview

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Paperwork

- Instructor Registration Form
- Personal Information
- Liability Release
- Medical Statement

Let's Get to Know Each Other

Professional Staff

Participants

- Your name?
- What type of technical diving experience do you have?
- Which technical diving activities interest you the most?
- Why are you interested in becoming a technical instructor?

About This Program

Course Objective

- Develop the appropriate knowledge and skills that are expected of every dive professional



Subject Areas

- The TDI Instructor
- Dive Leader Risk Management
- Methods of Instruction
- Business Side of Diving

Structure and Schedule

- Independent Study
- Classroom Presentations
- Confined Water Training
- Open Water Training

Required Equipment

- Items you'll need for this course

Any Questions?

The TDI Instructor

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 2-The SDI/TDI/ERDI Instructor



Dive Leader Risk Management

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 3-Dive Leader Risk Management

Methods of Instruction

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 4-Methods of Instruction

Business Side of Diving

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 5-Business of Diving

Teaching the TDI Closed Circuit Rebreather Advanced Mix Gas Diver Program

.....

- Program overview
 - Classroom requirements



- Students are required to become familiar with: risks of closed circuit rebreather advanced mixed gas diving, pre-dive tests and checks, scrubber packing, oxygen and diluent analysis, post-dive unit cleaning as they relate to the specific unit. Since divers already hold a unit specific CCR mixed gas diver certification, additional requirements for advanced mixed gas diving on CCRs need to be covered. An Instructor must be able to demonstrate instructor level knowledge on all topics and skills in the current TDI CCR Advanced Mixed Gas Diver standards.
- Pool / confined water requirements
 - While a pool / confined water session is not required, an instructor may take this opportunity to introduce divers to the differences of advanced mixed gas rebreather diving and the additional equipment needed in a controlled environment or conduct a skill evaluation to help the students become better divers. This is the ideal setting to conduct buoyancy skills, trim, equipment configuration, team building and loop drills.
- Open Water Requirements
 - Seven dives with a minimum of 420 minutes of bottom time are required. If this program is conducted in conjunction with other allowed courses, the seven dives plus the required number of dives from the other program are required. For the dives it is best to take divers progressively deeper so they get a slower introduction to advanced mixed gas rebreather diving. The first couple of dives can be started in shallower waters so divers get a sense of how the rebreather performs and the dive computers when switched to mixed gas. It is also best to not obligate the diver to decompression in the first few dives but rather to perform simulated decompression. This also allows an opportunity for the instructor to monitor the comfort level and abilities of the diver.
- Materials
 - Review all diver materials to make sure the instructor candidate is familiar with all diver materials and how they are supported



by the instructor materials. Instructors may use any materials that convey the knowledge needed to conduct CCR advanced mixed gas dives.*

- Diver Materials
 - Printed
- Required paperwork
 - Discuss in detail how the instructor should complete the required paperwork
 - The instructor candidate must be familiar with all forms and be able to answer any question a diver may have regarding the completion of those forms
 - Diver Training Folder
 - Waiver
 - Medical Questionnaire
- Complete a thorough review of the appropriate TDI Instructor manual including:
 - How to conduct:
 - Academic sessions
 - Cover helpful hints on how to teach more involved subjects
 - Pool/ Confined water sessions (if one is conducted)

*At the time of printing there were no TDI materials, diver or instructor, available for this course. Should TDI publish materials they will be required for use.



- Helpful hints on:
 - How to teach skills
 - Conducting an update / skill evaluation
 - Possible problems an instructor may experience
 - How to deal with those problems
- Open water sessions
 - Helpful hints on:
 - How to conduct skills in open water vs pool/confined
 - Possible problems an instructor may experience in open water
 - How to deal with those problems

List of tips on how to teach various aspects of this program include:

Gas Physiology – this is a review as the basics were covered in the CCR mixed gas diver course with the additional information on hypoxic levels of helium. Covering the gases that circulate in the loop will be a very important discussion because of the effects they have on decompression. An important one here is a CO₂ breakthrough and how it affects the diver.

Formula work and metabolic consumption – divers understand as the workload increases so do their respirations but they may not understand how that affects them on a rebreather. Provide examples of metabolic rate and oxygen consumed at low and high rates. This is a concept they would have never been exposed to. Another important topic is the possibility of bailing out to off-board gasses that may be hypoxic.

Dive tables – all tables previously covered in other courses need to be reviewed with the addition of the oxygen metabolic table and helium considerations as they relate to decompression obligations.



Equipment maintenance – Dives for this course and certification will be much longer so proper system maintenance needs to be emphasized.

Dive computers problem solving – it is encouraged that all divers use dive computers and further a constant PO₂ computer with mixed gas options. Systems equipped with dive computers should be covered in great detail.

Dive planning – planning an advanced mixed gas rebreather dive is different from planning an air mixed gas CCR dive given the great depth, so time needs to be spent on this topic. Another point would be the use of off-board gasses for decompression, contingency planning or diluent.

Emergency procedures – for this topic divers should learn both self and buddy emergency procedures, such as: signs and symptoms of CO₂ build up, on-board and off-board bailout options, loss of O₂ supply, loss of diluent supply, system flood to name a few.

List of academic / pool-confined water / open water topics for candidate to present:

As well as the topics above the following skills topics should be presented.

Pre-dive checks

Verify diluent and oxygen

Demonstrate correct pre-dive planning

Flooded absorbent canister

Broken hoses

Emergency procedures

Electronic system monitoring

Constant loop volume management

Demonstration of decompression stops



Post-dive cleaning of unit

Diver Maintenance of unit

Scheduling Options for this program

Courses can be scheduled with a one to one ratio, as a group or scheduled in conjunction with other TDI courses. Each of these will require different time commitments and scheduling logistics. A course with one advanced mixed gas CCR diver will take less time than if combined with another TDI course with a group.

Overview

The TDI Advanced Mixed Gas CCR Instructor program is comprised of classroom sessions and dives. One day should be allotted for the academic session with up to four full days for the dives.

If this program is taught with any of the other allowed instructor programs, two full days for the classroom should be scheduled and the appropriate amount of days for the dives if two dives per day are scheduled. There may be times when the course can be completed in less time but it is always good to allot an extra day or two for make-up time or weather.

Classroom

You will need various pieces of equipment normally used for CCR advanced mixed gas diving as well as a complete unit that the diver will be certified to dive on. The instructor must be able to demonstrate to instructor level quality all academic topics in the current TDI CCR Advanced Mixed Gas Diver Standards

Dives

Four dives are required for the instructor course. These sessions could be completed over three days but it is best to build in an extra day for delays



and make-up.

Knowledge Quest Review Questions if applicable

No instructor level Materials are available for this course. Candidates must be familiar with all the materials the IT presents to them.

Final Exam

No instructor level final exam is available for this program, although the candidate can complete the diver level final exam from the CCR Air Diluent Deco course and the exam from the TDI trimix open circuit course so they are familiar with the information.



Poseidon MK VI CCR Air Diluent Instructor Program

- ▶ Welcome and Course Overview
- ▶ The TDI Instructor
- ▶ Dive Leader Risk Management
- ▶ Methods of Instruction
- ▶ Business Side of Diving
- ▶ Teaching the Poseidon MK VI CCR
Air Diluent Instructor Program

The TDI MK VI CCR Air Diluent Instructor Program is the first level instructor rating using the Poseidon Discovery MK VI CCR. If this is the first program an instructor is completing through TDI more time will need to be spent on the core topics listed below. Once an instructor has completed their initial TDI MK VI CCR Air Diluent program, or any initial TDI Instructor program, they will need only to focus on the course specific content for future programs.

Objectives

The object of this program is to:

- Introduce the instructor to TDI
- Introduce the candidate to the TDI Instructor Guide and Student materials
- Demonstrate how to use the TDI MK VI CCR Air Diluent



materials to train a new diver

- Teach the instructor “How to Conduct” the TDI MK VI CCR Air Diluent Diver program
- Demonstrate how to register and certify a new MK VI CCR Air Diluent Diver

Prerequisites for TDI MK VI CCR Air Diluent Instructor Program

See the current TDI MK VI CCR Air Diluent Instructor standards for the prerequisites and requirements for this program.

Materials Required

Teaching any program with outdated materials is just asking for problems. The trainer must confirm that their materials are current and each instructor has the current materials with which to teach the program.

Instructor Trainer

- TDI Diving Rebreathers Diver Manual
- TDI Diving Rebreathers Knowledge Quest
- TDI Diving Rebreathers Instructor Guide
- TDI Diving Rebreathers PowerPoint Presentation®
- TDI Instructor Trainer Manual
- Unit specific manufacturer’s user manual

Instructor Candidate

- TDI Diving Rebreathers Diver Manual
- TDI Diving Rebreathers Diver Knowledge Quest



- TDI Diving Rebreathers Instructor Guide
- TDI Diving Rebreathers PowerPoint Presentation®
- Unit specific manufacturer’s user manual

Note: Prior to beginning the program the instructor candidate should review all instructor and diver materials and complete all knowledge quests and final exams so they are completely familiar with the subject matter and the support materials to teach the TDI MK VI CCR Air Diluent Diver program.

The topics to be covered are:

- Welcome and Course Orientation
- The TDI Instructor*
- Dive Leader Risk Management*
- Methods of Instruction*
- Business Side of Diving*
- Courses a TDI MK VI CCR Air Diluent Instructor Can Teach

*Core Topics: These core topics will be found in Part One of this manual; IT Information.

Welcome and Course Overview

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Paperwork

- Instructor Registration Form
- Personal Information



- Liability Release
- Medical Statement

Let's Get to Know Each Other

Professional Staff

Participants

- Your name?
- What type of technical diving experience do you have?
- Which technical diving activities interest you the most?
- Why are you interested in becoming a technical instructor?

About This Program

Course Objective

- Develop the appropriate knowledge and skills that are expected of every dive professional

Subject Areas

- The TDI Instructor
- Dive Leader Risk Management
- Methods of Instruction
- Business Side of Diving



Structure and Schedule

- Independent Study
- Classroom Presentations
- Confined Water Training
- Open Water Training

Required Equipment

- Items you'll need for this course

Any Questions?

The TDI Instructor

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 2-The SDI/TDI/ERDI Instructor

Dive Leader Risk Management

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 3-Dive Leader Risk Management



Methods of Instruction

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 4-Methods of Instruction

Business Side of Diving

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 5-Business of Diving

Teaching the TDI MK VI CCR Air Diluent Diver Program

- Program overview
 - Classroom requirements
 - Students are required to become familiar with: risks of closed circuit rebreathers, pre-dive tests and checks, scrubber canister, oxygen analysis, post-dive unit cleaning as they relate to the MKVI. Since this course may be the first time a diver has been on a rebreather, it is best to explain the differences between open circuit equipment and closed circuit as well as their breathing characteristics and how all CCRs are not built or designed the same. An Instructor must be able to demonstrate instructor level knowledge on all topics and skills in the current TDI CCR MKVI Air Diluent standards.
 - Pool / confined water requirements
 - 60 minutes of pool / confined water training is required. An instructor should take this opportunity to introduce divers to required



skills for MKVI CCR diving, the differences of rebreather diving in a controlled environment or conduct a basic skill evaluation to help the students become better divers. This is the ideal setting to conduct buoyancy skills, trim and equipment configuration.

- Open Water Requirements

- Four dives with a minimum of 180 minutes of bottom time are required. If this program is conducted in conjunction with other allowed courses, the four dives plus the required number of dives from the other program are required. For the dives it is best to take divers progressively deeper so they get a slower introduction to rebreather diving. The first couple of dives can be started in shallower waters so divers get a sense of how the rebreather performs and the differences from open circuit diving. This also allows an opportunity for the instructor to monitor the comfort level and abilities of the diver.

- Materials

- Review all diver materials to make sure the instructor candidate is familiar with all diver materials and how they are supported by the instructor materials.

- Diver Materials

- Online
- Printed

- Required paperwork

- Discuss in detail how the instructor should complete the required paperwork

- The instructor candidate must be familiar with all forms and be able to answer any question a diver may have regarding the completion of those forms

- Diver Training Folder



- Waiver
- Medical Questionnaire
- Complete a thorough review of the appropriate TDI Instructor manual including:
 - How to conduct:
 - Academic sessions
 - Cover helpful hints on how to teach more involved subjects
 - Pool/ Confined water sessions
 - Helpful hints on:
 - How to teach skills
 - Conducting an update / skill evaluation
 - Possible problems an instructor may experience
 - How to deal with those problems
 - Open water sessions
 - Helpful hints on:
 - How to conduct skills in open water vs pool/confined
 - Possible problems an instructor may experience in open water
 - How to deal with those problems

List of tips on how to teach various aspects of this program include:

History and evolution of rebreathers – the most important part of rebreather history is to demonstrate to divers that the technology is not new and many people have tried and tested these products to ensure safety. The MKVI is the next generation of CCRs utilizing the latest in technology.



Comparison of OC, SCR and CCR – for this topic the instructor should give a review of the major differences of the three systems and the benefits and risks of each. The objective should be, to get the diver in the right mindset for MKVI CCR diving.

Practical mechanics of the system – because rebreathers are so drastically different from open circuit equipment and the MKVI is different from other CCRs it is good to explain exactly how a rebreather works and the differences to open circuit and other CCRs. Explain the injection of oxygen to replenish metabolized oxygen, how the scrubber scrubs gasses through chemical reaction and the exothermic reaction it has.

Gas Physiology – this again is a review as the basics are covered in the open water diver course and again in the nitrox course. Covering the gases that circulate in the loop will be a very important discussion because in open circuit dives these are not as much of a concern. An important one here is a CO₂ breakthrough and how it affects the diver.

Formula work and metabolic consumption – divers understand as the workload increases so do their respirations but they may not understand how that affects them on a rebreather. Provide examples of metabolic rate and oxygen consumed at low and high rates. This is a concept they would have never been exposed to.

Scrubber canister and cartridge – cover how a scrubber works and how to properly inspect it to ensure all o-rings are in place and the cartridge is inserted properly. This is also a good time to discuss scrubber duration and that if in doubt as to whether the cartridge will last the full dive, it is best to insert a new cartridge.

Electronic system design maintenance – cover the differences in electronic and manual system designs and the user interface. Discuss the uniqueness of the fully electronic system of the MKVI and its start-up and testing functions.

Dive tables – all tables previously covered in other courses need to be reviewed with the addition of the oxygen metabolic table.



Dive computers problem solving – Since the MKVI is equipped with its own dive computer the topics to be covered could be limited to alarms and warning displays.

Dive planning – planning a rebreather dive is nothing like planning an open circuit dive so lots of time needs to be spent on this topic. Divers need to know that scrubber duration as well as oxygen supply play a big role in the limits of their dives. These are two things they will have never encountered.

Emergency procedures – for this topic divers should learn both self and buddy emergency procedures, such as: signs and symptoms of CO₂ build up, on-board and off-board bailout options, loss of O₂ supply, loss of diluent supply, system flood to name a few.

List of academic / pool-confined water / open water topics for candidate to present:

As well as the topics above the following skills topics should be presented.

Pre-dive checks

Verify diluent and oxygen

Demonstrate correct pre-dive planning

Emergency procedures

Electronic system monitoring

Constant loop volume management

Post-dive cleaning of unit

Diver Maintenance of unit

Scheduling Options for this program

Courses can be scheduled with a one to one ratio, as a group or scheduled in conjunction with other TDI courses. Each of these will require different time commitments and scheduling logistics. A course with one MKVI air



diluent CCR diver will take less time than if combined with another TDI course with a group.

Overview

The TDI MKVI Air Diluent CCR Instructor program is comprised of classroom sessions and dives. One day should be allotted for the academic session with up to three full days for the dives.

If this program is taught with any of the other allowed instructor programs, two full days for the classroom should be scheduled and the appropriate amount of days for the dives if two dives per day are scheduled. There may be times when the course can be completed in less time but it is always good to allot an extra day or two for make-up time or weather.

Classroom

You will need various pieces of equipment normally used for CCR diving as well as a complete MKVI unit. The instructor must be able to demonstrate to instructor level quality all academic topics in the current TDI MKVI CCR Air Diluent Diver Standards.

Dives

four dives with a total of 240 minutes of bottom time are required for the instructor course. These sessions could be completed over three days but it is best to build in an extra day for delays and make-up.

Knowledge Quest Review Questions if applicable

No instructor level Knowledge Quest is available for this program, although the candidate should complete the diver level Knowledge Quest so they are familiar with the information.

Final Exam

No instructor level final exam is available for this program, although the candidate should complete the diver level final exam so they are familiar with the information.







Poseidon MK VI CCR Air Diluent Decompression Procedures Instructor Program

- ▶ Welcome and Course Overview
- ▶ The TDI Instructor
- ▶ Dive Leader Risk Management
- ▶ Methods of Instruction
- ▶ Business Side of Diving
- ▶ Teaching the Poseidon MK VI CCR Air Diluent Decompression Procedures Instructor Program

The TDI MK VI CCR Air Diluent Decompression Procedures Instructor Program is typically an upgrade from the TDI MK VI CCR Air Diluent instructor rating. This may also be the candidate's first CCR instructor course provided they meet the prerequisite open circuit requirements. If this is the first program an instructor is completing through TDI more time will need to be spent on the core topics listed below. Once an instructor has completed their initial TDI MK VI CCR Air Diluent Decompression Procedures program, or any initial TDI Instructor program, they will need only to focus on the course specific content for future programs.

Objectives

The object of this program is to:

- Introduce the instructor to TDI
- Introduce the candidate to the TDI Instructor Guide and Student materials

- Demonstrate how to use the TDI MK VI CCR Air Diluent Decompression Procedures materials to train a new diver
- Teach the instructor “How to Conduct” the TDI MK VI CCR Air Diluent Decompression Procedures Diver program
- Demonstrate how to register and certify a new MK VI CCR Air Diluent Decompression Procedures diver

Prerequisites for TDI MK VI CCR Air Diluent Decompression Procedures Instructor Program

See the current TDI MK VI CCR Air Diluent Decompression Procedures Instructor standards for the prerequisites and requirements for this program.

Materials Required

Teaching any program with outdated materials is just asking for problems. The trainer must confirm that their materials are current and each instructor has the current materials with which to teach the program.

Instructor Trainer

- TDI Diving Rebreathers Diver Manual
- TDI Diving Rebreathers Knowledge Quest
- TDI Diving Rebreathers Instructor Guide
- TDI Diving Rebreathers PowerPoint Presentation®
- TDI Instructor Trainer Manual
- Unit specific manufacturer’s user manual

Instructor Candidate

- TDI Diving Rebreathers Diver Manual



- TDI Diving Rebreathers Diver Knowledge Quest
- TDI Diving Rebreathers Instructor Guide
- TDI Diving Rebreathers PowerPoint Presentation®
- Unit specific manufacturer’s user manual

Note: Prior to beginning the program the instructor candidate should review all instructor and diver materials and complete all knowledge quests and final exams so they are completely familiar with the subject matter and the support materials to teach the TDI MK VI CCR Air Diluent Decompression Procedures Diver program.

The topics to be covered are:

- Welcome and Course Orientation
- The TDI Instructor*
- Dive Leader Risk Management*
- Methods of Instruction*
- Business Side of Diving*
- Courses a TDI MK VI CCR Air Diluent Decompression Procedures Instructor Can Teach

*Core Topics: These core topics will be found in Part One of this manual; IT Information.

Welcome and Course Overview

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Paperwork

- Instructor Registration Form
- Personal Information
- Liability Release
- Medical Statement

Let's Get to Know Each Other

Professional Staff

Participants

- Your name?
- What type of technical diving experience do you have?
- Which technical diving activities interest you the most?
- Why are you interested in becoming a technical instructor?

About This Program

Course Objective

- Develop the appropriate knowledge and skills that are expected of every dive professional

Subject Areas

- The TDI Instructor
- Dive Leader Risk Management
- Methods of Instruction
- Business Side of Diving



Structure and Schedule

- Independent Study
- Classroom Presentations
- Confined Water Training
- Open Water Training

Required Equipment

- Items you'll need for this course

Any Questions?

The TDI Instructor

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 2-The SDI/TDI/ERDI Instructor

Dive Leader Risk Management

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 3-Dive Leader Risk Management

Methods of Instruction

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 4-Methods of Instruction



Business Side of Diving

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 5-Business of Diving

Teaching the TDI MK VI CCR Air Diluent Decompression Procedures Diver Program

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- Program overview
- Classroom requirements
 - Students are required to become familiar with: risks of closed circuit rebreather decompression diving, pre-dive tests and checks, scrubber canister, oxygen analysis, post-dive unit cleaning as they relate to the MKVI. Since this is not the first time a diver has been on a rebreather, a review of the basic CCR skills would be in order. An Instructor must be able to demonstrate



instructor level knowledge on all topics and skills in the current TDI CCR MKVI Air Diluent standards.

- Pool / confined water requirements
 - 60 minutes of pool / confined water training is required. An instructor should take this opportunity to introduce divers to required skills for MKVI CCR diving and the differences of rebreather diving in a controlled environment or conduct a basic skill evaluation to help the students become better divers. This is the ideal setting to conduct buoyancy skills, trim, system monitoring and equipment configuration.
- Open Water Requirements
 - Four dives with a minimum of 420 minutes of bottom time are required. If this program is conducted in conjunction with other allowed courses, the four dives plus the required number of dives from the other program are required. For the dives it is best to take divers progressively deeper so they get a slower introduction to rebreather diving. The first couple of dives can be started in shallower waters so divers get a sense of how the rebreather performs and the differences from open circuit diving. This also allows an opportunity for the instructor to monitor the comfort level and abilities of the diver.
- Materials
 - Review all diver materials to make sure the instructor candidate is familiar with all diver materials and how they are supported by the instructor materials.
 - Diver Materials
 - Online
 - Printed
- Required paperwork
 - Discuss in detail how the instructor should complete the



required paperwork

- The instructor candidate must be familiar with all forms and be able to answer any question a diver may have regarding the completion of those forms.
 - Diver Training Folder
 - Waiver
 - Medical Questionnaire
- Complete a thorough review of the appropriate TDI Instructor manual including:
 - How to conduct:
 - Academic sessions
 - Cover helpful hints on how to teach more involved subjects
 - Pool/ Confined water sessions
 - Helpful hints on:
 - How to teach skills
 - Conducting an update / skill evaluation
 - Possible problems an instructor may experience
 - How to deal with those problems
 - Open water sessions
 - Helpful hints on:
 - How to conduct skills in open water vs pool/confined
 - Possible problems an instructor may experience in open water
 - How to deal with those problems



List of tips on how to teach various aspects of this program include:

History and evolution of rebreathers – the most important part of rebreather history is to demonstrate to divers that the technology is not new and many people have tried and tested these products to ensure safety. The MKVI is the next generation of CCRs utilizing the latest in technology.

Comparison of OC, SCR and CCR – for this topic the instructor should give a review of the major differences of the three systems and the benefits and risks of each. The objective should be to get the diver in the right mindset for MKVI CCR diving.

Practical mechanics of the system – because rebreathers are so drastically different from open circuit equipment and the MKVI is different from other CCRs it is good to explain exactly how a rebreather works and the differences to open circuit and other CCRs. Explain the injection of oxygen to replenish metabolized oxygen, how the scrubber scrubs gasses through chemical reaction and the exothermic reaction it has.

Gas Physiology – this again is a review as the basics are covered in the open water diver course and again in the nitrox course. Covering the gases that circulate in the loop will be a very important discussion because in open circuit dives these are not as much of a concern. An important one here is a CO₂ breakthrough and how it affects the diver.

Formula work and metabolic consumption – divers understand as the workload increases so do their respirations but they may not understand how that affects them on a rebreather. Provide examples of metabolic rate and oxygen consumed at low and high rates. This is a concept they would have never been exposed to.

Scrubber canister and cartridge – cover how a scrubber works and how to properly inspect it to ensure all o-rings are in place and the cartridge is inserted properly. This is also a good time to discuss scrubber duration and how when in question if the cartridge will last the full dive, it is best to insert a new cartridge.



Electronic system design maintenance – cover the differences in electronic and manual system designs and the user interface. Discuss the uniqueness of the fully electronic system of the MKVI and its start-up and testing functions as well as the differences in the batteries required to perform mixed gas diving on the MKVI.

Dive tables – all tables previously covered in other courses need to be reviewed with the addition of the oxygen metabolic table.

Dive computers problem solving – since the MKVI is equipped with its own dive computer the topics to be covered could be limited to alarms and warning displays.

Dive planning – planning a rebreather dive is nothing like planning an open circuit dive so lots of time needs to be spent on this topic. Divers need to know that scrubber duration as well as oxygen supply play a big role in the limits of their dives. These are two things they will have never encountered.

Emergency procedures – for this topic divers should learn both self and buddy emergency procedures, such as: signs and symptoms of CO₂ build up, on-board and off-board bailout options, loss of O₂ supply, loss of diluent supply, system flood to name a few.

List of academic / pool-confined water / open water topics for candidate to present:

As well as the topics above the following skills topics should be presented.

Pre-dive checks

Verify diluent and oxygen

Demonstrate correct pre-dive planning

Emergency procedures

Electronic system monitoring

Constant loop volume management



Post-dive cleaning of unit

Diver Maintenance of unit

Scheduling Options for this program

Courses can be scheduled with a one to one ratio, as a group or scheduled in conjunction with other TDI courses. Each of these will require different time commitments and scheduling logistics. A course with one MKVI air diluent decompression procedures CCR diver will take less time than if combined with another TDI course with a group.

Overview

The TDI MKVI Air Diluent Decompression Procedures CCR Instructor program is comprised of classroom sessions and dives. One day should be allotted for the academic session with up to three full days for the dives.

If this program is taught with any of the other allowed instructor programs, two full days for the classroom should be scheduled and the appropriate amount of days for the dives if two dives per day are scheduled. There may be times when the course can be completed in less time but it is always good to allot an extra day or two for make-up time or weather.

Classroom

You will need various pieces of equipment normally used for CCR diving as well as a complete MKVI unit. The instructor must be able to demonstrate to instructor level quality all academic topics in the current TDI MKVI CCR Air Diluent Decompression Procedures Diver Standards.

Dives

Four dives with a total of 240 minutes of bottom time are required for the instructor course. These sessions could be completed over three days but it is best to build in an extra day for delays and make-up.



Knowledge Quest Review Questions if applicable

No instructor level Knowledge Quest is available for this program, although the candidate should complete the diver level Knowledge Quest so they are familiar with the information.

Final Exam

No instructor level final exam is available for this program, although the candidate should complete the diver level final exam so they are familiar with the information.





Poseidon MK VI CCR Mixed Gas Instructor Program

- ▶ Welcome and Course Overview
- ▶ The TDI Instructor
- ▶ Dive Leader Risk Management
- ▶ Methods of Instruction
- ▶ Business Side of Diving
- ▶ Teaching the Poseidon MK VI CCR
Mixed Gas Instructor Program

The TDI MK VI CCR Mixed Gas Instructor Program is the highest level instructor rating TDI has available for the Poseidon Discovery MK VI CCR. If this is the first program an instructor is completing through TDI more time will need to be spent on the core topics listed below. Once an instructor has completed their initial TDI MK VI CCR Mixed Gas program, or any initial TDI Instructor program, they will need only to focus on the course specific content for future programs.

Objectives

The object of this program is to:

- Introduce the instructor to TDI
- Introduce the candidate to the TDI Instructor Guide and Student materials
- Demonstrate how to use the TDI MK VI CCR Mixed Gas

materials to train a new diver

- Teach the instructor “How to Conduct” the TDI MK VI CCR Mixed Gas Diver program
- Demonstrate how to register and certify a new MK VI CCR Mixed Gas diver

Prerequisites for TDI MK VI CCR Mixed Gas Instructor Program

See the current TDI MK VI CCR Mixed Gas Instructor standards for the prerequisites and requirements for this program.

Materials Required

Teaching any program with outdated materials is just asking for problems. The trainer must confirm that their materials are current and each instructor has the current materials with which to teach the program.

Instructor Trainer

- TDI Diving Rebreathers Diver Manual
- TDI Diving Rebreathers Knowledge Quest
- TDI Diving Rebreathers Instructor Guide
- TDI Diving Rebreathers PowerPoint Presentation®
- TDI Instructor Trainer Manual
- Unit specific manufacturer’s user manual

Instructor Candidate

- TDI Diving Rebreathers Diver Manual
- TDI Diving Rebreathers Diver Knowledge Quest



- TDI Diving Rebreathers Instructor Guide
- TDI Diving Rebreathers PowerPoint Presentation®
- Unit specific manufacturer’s user manual

Note: Prior to beginning the program the instructor candidate should review all instructor and diver materials and complete all knowledge quests and final exams so they are completely familiar with the subject matter and the support materials to teach the TDI MK VI CCR Mixed Gas Diver program.

The topics to be covered are:

- Welcome and Course Orientation
- The TDI Instructor*
- Dive Leader Risk Management*
- Methods of Instruction*
- Business Side of Diving*
- Courses a TDI MK VI CCR Mixed Gas Instructor Can Teach

*Core Topics: These core topics will be found in Part One of this manual; IT Information.

Welcome and Course Overview

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Paperwork

- Instructor Registration Form
- Personal Information



- Liability Release
- Medical Statement

Let's Get to Know Each Other

Professional Staff

Participants

- Your name?
- What type of technical diving experience do you have?
- Which technical diving activities interest you the most?
- Why are you interested in becoming a technical instructor?

About This Program

Course Objective

- Develop the appropriate knowledge and skills that are expected of every dive professional

Subject Areas

- The TDI Instructor
- Dive Leader Risk Management
- Methods of Instruction
- Business Side of Diving



Structure and Schedule

- Independent Study
- Classroom Presentations
- Confined Water Training
- Open Water Training

Required Equipment

- Items you'll need for this course

Any Questions?

The TDI Instructor

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 2-The SDI/TDI/ERDI Instructor

Dive Leader Risk Management

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Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 3-Dive Leader Risk Management

Methods of Instruction

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 4-Methods of Instruction



Business Side of Diving

.....

Refer to Instructor Trainer Manual Part 1 Instructor Training Process
Chapter 5-Business of Diving

Teaching the TDI MK VI CCR Mixed Gas Diver Program

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- Program overview
 - Classroom requirements
 - Students are required to become familiar with: risks of closed circuit rebreather mixed gas diving, pre-dive tests and checks, scrubber canister, oxygen and diluent analysis, post-dive unit cleaning as they relate to the MKVI. Since divers already hold a unit specific MKVI diver certification, additional requirements for mixed gas diving on the MKVI need to be covered. An Instructor must be able to demonstrate instructor level knowledge on all topics and skills in the current TDI CCR MKVI Mixed Gas Diver standards.
 - Pool / confined water requirements
 - While a pool / confined water session is not required, an instructor may take this opportunity to introduce divers to the differences of mixed gas rebreather diving and the additional equipment needed in a controlled environment or conduct a skill evaluation to help the students become better divers. This is the ideal setting to conduct buoyancy skills, trim, equipment configuration and loop drills.
 - Open Water Requirements



- Six dives with a minimum of 360 minutes of bottom time are required. If this program is conducted in conjunction with other allowed courses, the six dives plus the required number of dives from the other program are required. For the dives it is best to take divers progressively deeper so they get a slower introduction to mixed gas rebreather diving. The first couple of dives can be started in shallower waters so divers get a sense of how the rebreather performs and the dive computers when switched to mixed gas. It is also best to not obligate the diver to decompression in the first few dives but rather to perform simulated decompression. This also allows an opportunity for the instructor to monitor the comfort level and abilities of the diver.

- Materials

- Review all diver materials to make sure the instructor candidate is familiar with all diver materials and how they are supported by the instructor materials. Instructors may use any materials that convey the knowledge needed to conduct CCR mixed gas dives.*

- Diver Materials

- Printed

- Required paperwork

- Discuss in detail how the instructor should complete the required paperwork

- The instructor candidate must be familiar with all forms and be able to answer any question a diver may have regarding the completion of those forms

- Diver Training Folder

*At the time of printing there were no TDI materials, diver or instructor, available for this course. Should TDI publish materials they will be required for use.



- Waiver
- Medical Questionnaire
- Complete a thorough review of the appropriate TDI Instructor manual including:
 - How to conduct:
 - Academic sessions
 - Cover helpful hints on how to teach more involved subjects
 - Pool/ Confined water sessions
 - Helpful hints on:
 - How to teach skills
 - Conducting an update / skill evaluation
 - Possible problems an instructor may experience
 - How to deal with those problems
 - Open water sessions
 - Helpful hints on:
 - How to conduct skills in open water vs pool/confined
 - Possible problems an instructor may experience in open water
 - How to deal with those problems

List of tips on how to teach various aspects of this program include:

Practical mechanics of the system – because rebreathers are so drastically different from open circuit equipment and the MKVI is different from



other CCRs it is good to explain exactly how a rebreather works and the differences to open circuit and other CCRs. Explain the injection of oxygen to replenish metabolized oxygen, how the scrubber scrubs gasses through chemical reaction and the exothermic reaction it has.

Gas Physiology – this is a review as the basics were covered in the CCR air diluent diver course with the additional information on helium. Covering the gases that circulate in the loop will be a very important discussion because of the effects they have on decompression. An important one here is a CO₂ breakthrough and how it affects the diver.

Electronic system design maintenance – cover the differences in electronic and manual system designs and the user interface. Discuss the uniqueness of the fully electronic system of the MKVI and its start-up and testing functions as well as the differences in the batteries required to perform mixed gas diving on the MKVI.

Formula work and metabolic consumption – divers understand as the workload increases so do their respirations but they may not understand how that affects them on a rebreather. Provide examples of metabolic rate and oxygen consumed at low and high rates. This is a concept they would have never been exposed to.

Dive tables – all tables previously covered in other courses need to be reviewed with the addition of the oxygen metabolic table.

Equipment maintenance – dives for this course and certification will be much longer so proper system maintenance needs to be emphasized.

Dive computers problem solving – it is encouraged that all divers use dive computers and further a constant PO₂ computer. Systems equipped with dive computers should be covered in great detail.

Dive planning – planning a mixed gas rebreather dive is different from planning an air diluent CCR dive so time needs to be spent on this topic. Another point would be the use of off-board gasses for decompression, contingency planning or diluent.



Emergency procedures – for this topic divers should learn both self and buddy emergency procedures, such as: signs and symptoms of CO2 build up, on-board and off-board bailout options, loss of O2 supply, loss of diluent supply, system flood to name a few.

List of academic / pool-confined water / open water topics for candidate to present:

As well as the topics above the following skills topics should be presented.

Pre-dive checks

Verify diluent and oxygen

Demonstrate correct pre-dive planning

Emergency procedures

Electronic system monitoring

Constant loop volume management

Demonstration of decompression stops

Post-dive cleaning of unit

Diver Maintenance of unit

Scheduling Options for this program

Courses can be scheduled with a one to one ratio, as a group or scheduled in conjunction with other TDI courses. Each of these will require different time commitments and scheduling logistics. A course with one MKVI Mixed Gas CCR diver will take less time than if combined with another TDI course with a group.

Overview

The TDI MKVI Mixed Gas CCR Instructor program is comprised of classroom sessions and dives. One day should be allotted for the academic



session with up to three full days for the dives.

If this program is taught with any of the other allowed instructor programs, two full days for the classroom sessions should be scheduled and the appropriate amount of days for the dives if two dives per day are scheduled. There may be times when the course can be completed in less time but it is always good to allot an extra day or two for make-up time or weather.

Classroom

You will need various pieces of equipment normally used for CCR mixed gas diving as well as a complete MKVI unit. The instructor must be able to demonstrate to instructor level quality all academic topics in the current TDI MKVI CCR Mixed Gas Diver Standards.

Dives

Four dives are required for the instructor course. These sessions could be completed over three days but it is best to build in an extra day for delays and make-up.

Knowledge Quest Review Questions if applicable

No instructor level Materials are available for this course. Candidates must be familiar with all the materials the IT presented to them.

Final Exam

No instructor level final exam is available for this program, although the candidate can complete the diver level final exam from the CCR Air Diluent Deco course and the exam from the TDI trimix open circuit course so they are familiar with the information.







Conducting TDI Instructor Course Water Sessions

- ▶ Conducting TDI Instructor Course Pool / Confined Water Sessions
- ▶ Conducting TDI Instructor Course Open Water Sessions

Conducting TDI Instructor Course Pool / Confined Water Sessions

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Due to each TDI course being so specialized, the pool / confined water sessions should focus on the specific area. Some areas may not even require a pool / confined water session.

First session

For certifications that do require a pool/confined water session, it is recommended that during the first session candidates should perform, to demonstration quality, all of the required skills listed in the specific course

they will be teaching. They should also perform, to demonstration quality, one complete rescue scenario.

Second session

The second session of the pool/confined water training should be more of a workshop on “How to Teach” the skills from the specific diver program they will be qualified to teach. Helpful hints on how to teach, possible problems an instructor may experience in the pool /confined water, and how to resolve those problems should be covered. Control techniques to be used for various locations and skills, shallow end compared to the deep end, having an assistant available, not having an assistant available should also be covered.

During this time candidates should be allowed to “Test Teach” under the trainer’s guidance any and all skills so they become comfortable teaching the skills.

Third session

The third and subsequent sessions should be designed for the candidates to show preparation and planning of at least two lessons in confined water. These lessons will be evaluated using the in-water evaluation form. The candidate must show preparation, planning and control in dive management, diving activities, and proper pool/confined water problem solving. The second and third session can many times be conducted together.

Conducting TDI Instructor Course Open Water Sessions

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Due to each TDI course being so specialized, the open water sessions should focus on the specific area. Other than the TDI Nitrox course all courses will



require an open water session.

First session

The first open water session should focus on the skill evaluation.

In open water candidates must perform, to demonstration quality, all skills listed in the specific diver course they will be qualified to teach. They should also perform, to demonstration quality, one complete rescue scenario.

Second session

The second session of the open water training should be more of a workshop on “How to Conduct” the skills in the open water from the diver course they will be qualified to teach. Helpful hints on how to brief the skills, possible problems an instructor may experience in the open water, and how to resolve those problems should be covered. Control techniques to be used for various locations and skills, good visibility compared to limited visibility, having an assistant available, not having an assistant available should also be covered.

During this time candidates should be allowed to “Test Evaluate” under the trainer’s guidance any and all skills so they become comfortable evaluating the skills in open water.

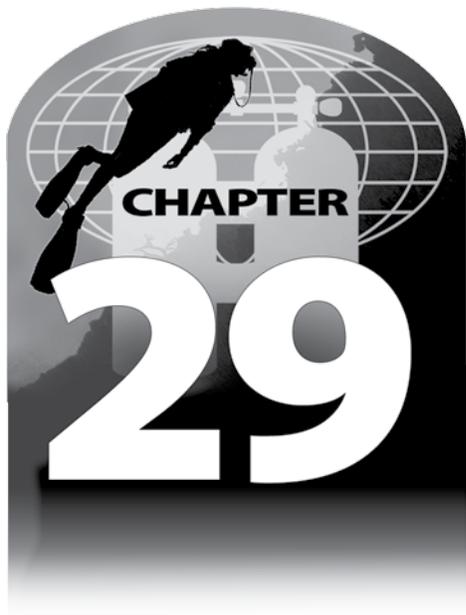
Third session

The third and subsequent sessions should be designed for the candidates to show preparation and planning of at least two lessons in open water. These lessons will be evaluated using the in-water evaluation form. The candidate must show preparation, planning and control in dive management, diving activities, and proper open water water problem solving. The second and third sessions may be conducted together.

Consult the current TDI Training standards for programs that require multiple dives and schedule accordingly.







Marketing TDI Professional Courses

The TDI Instructor program should be scheduled on a regular basis. In addition to those individuals who may decide on their own to enroll in this program, the dive center and each of its instructors also should be alert to divers in other continuing education programs, particularly Instructors, who appear to be likely candidates for a TDI Instructor course. In many cases, the dive center and instructors will be seeking to identify potential additions to the dive center's own staff.

Prior to accepting a candidate into this program, many instructor trainers conduct an individual counseling session with each candidate, to better understand their interests and long term goals in diving, and also to ensure that each candidate fully comprehends the commitments involved in obtaining the next level of professional certification.

TDI Instructor training is typically completed as needed on a one-to-one basis. Make sure potential candidates make sure potential candidates know the training is available.

