Digital **Underwater**
Photographer Specialty Course
Instructor Outline
2010 Edition

PADI

PADI® Digital Underwater Photographer Specialty Course Instructor Outline

Please read this first:

Qualifying to teach the PADI Digital Underwater Photographer Course

To qualify to teach the PADI Digital Underwater Photographer course, an individual must be a Teaching status PADI Open Water Scuba Instructor or PADI Assistant Instructor, or an Active status PADI Divemaster.

1. **PADI Instructors may apply for the Digital Underwater Photographer Specialty Instructor rating after completing a Specialty Instructor Training course with a PADI Course Director, or by providing proof of experience and applying directly.**

    Applicants who attend a Specialty Instructor Training course must have logged at least 10 digital underwater photography dives. These dives may be completed after the course/program prior to submitting the Specialty Course Instructor Application.

    Those who apply directly need to have logged at least 20 digital underwater photography dives.

2. **PADI Assistant Instructors and Divemasters may apply only after completing a PADI Digital Underwater Photographer Specialty Instructor Training course with a PADI Course Director.**
    Applicants must have logged at least 10 digital underwater photography dives. These dives may be completed after the course/program prior to submitting the Specialty Course Instructor Application.

Overview

The PADI Digital Underwater Photographer course is a two-part (Level One and Level Two) introduction to digital underwater photography centered around today's point-and-shoot digital cameras. The course helps student divers develop the knowledge, skills and practical techniques necessary to obtain excellent photographs with a digital camera, even on their first photo dive. It is a materials-driven course intended for a broad audience – snorkelers, Discover Scuba Diving participants*, Open Water Diver students* and certified divers. The course is primarily for those interested in learning the basics of digital underwater photography.

Level One of the course guides students in achieving good results easily, even if they've never used a digital camera before. It is designed as an introduction to course skills and knowledge. In Level One, students learn what equipment they need to take great underwater photographs, how to prepare their underwater photo system, and basic underwater photo techniques while diving in an environmentally friendly manner. Level One training is open to snorkelers, Open Water Diver students* and certified divers. Students who successfully complete Level One may receive a PADI certification card.

You may conduct Level One skill development in a pool/confined water or in open water. After students successfully complete Level One, they may move on to Level Two to learn how to make their photographs even better. Level Two expands what they need to know about file formats, resolution settings, making their images lighter or darker, getting good color, composing their photo, downloading photographs into their computer and adjusting them to look their best. Level Two training is open to snorkelers and certified divers. You conduct Level Two skill development in open water. Participants who successfully complete Level Two skill development qualify for the PADI Digital Underwater Photographer Specialty certification.

*Information specific to integrating Digital Underwater Photography into your Discover Scuba Diving experiences and Open Water Diver courses is found in their own separate sections later in this guide.

Course Standards

Prerequisites

1. **Be certified as a PADI Open Water Diver, PADI Junior Open Water Diver or have a qualifying certification from another training organization or be a snorkeler.**

2. Minimum Age: snorkelers – None.
   Supplied Air Snorkelers (SAS) – 5 years old.
   scuba divers – 10 years old.

Ratios

Divers

Confined Water

The maximum inwater ratio for confined water scuba training is 10 student divers per PADI Digital Underwater Photography Instructor, with a certified assistant required for every four additional students.

Confined Open Water for 10 and 11-year-olds

When using confined open water instead of a pool, the maximum student diver-to-instructor ratio is 4:1 if 10 or 11-year-olds are participating. No more than two children aged 10-11 may be included in the group of four student divers.

Open Water

The maximum ratio of student divers to course instructor (qualified PADI Instructor, Assistant Instructor or Divemaster) during the open water dives for this course is 8 students to 1 instructor, with a certified assistant for each four additional students.

Open Water for 10 and 11-year-olds

During any open water training dive that includes children aged 10-11, the maximum student diver-to-instructor ratio is 4:1. No more than two children aged 10-11 may be included in the group of four student divers. You may not increase this ratio with the use of certified assistants.

Snorkelers

There are no specified ratios for snorkelers. Exercise sound judgment with respect to variable factors such as the environment, conditions, the ability to control the group when determining the appropriate ratio.

There is no maximum student-to-instructor ratio for review/discussion sessions or the Digital Image Workflow Workshop.

Supervision

You may indirectly supervise certified divers and snorkelers. It is recommended, but not required, that buddy teams have a certified assistant accompany them. **Junior divers (14 years and younger) must be directly supervised by a certified assistant or the instructor.**

PADI Assistant Instructors and Divemasters conducting the course may do so only under the direction of a Teaching status PADI Instructor who is a PADI Digital Underwater Photographer Specialty Instructor. The instructor must be available for consultation during the course, although not necessarily present during training sessions.

Site, Depths and Hours

Choose sites with conditions and environmental features suitable for completing the course requirements. Shallower dives will provide divers with more time to complete tasks. For optimum light, it is recommended that the dive be conducted at 10 metres/33 feet or shallower.

The maximum planned depth must not exceed the diver's current training level, experience, or age-related limitations.

- **Open Water Divers – 18 metres/60 feet**
- **10- and 11-year-old Junior Divers – 12 metres/40 feet**
- **Advanced Open Water Divers or higher – 30 metres/100 feet**
- **12- to 14-year-old Junior Advanced Open Water Divers – 21 metres/70 feet**

Training dives for the PADI Digital Underwater Photographer Specialty course may be conducted at night provided divers have previous night diving experience. Completing the Night Adventure Dive from the Adventures in Diving program or earning the PADI Night Diver specialty certification are ideal for gaining experience.

Note: 10 and 11-year-old divers may not participate in night dives.

Training Materials and Equipment

Instructor Materials
Required

The Digital Underwater Photographer course is a materials-dependent curriculum. You must use the following when conducting the course:

- **PADI Digital Underwater Photographer Course Instructor Guide**
- **PADI *Digital Underwater Photographer Manual* or Digital Underwater Photographer eLearning™ program**
- **PADI Digital Underwater Photographer White Balance Slate**

Student Materials
Required
The PADI Dive Center, Resort, and/or Instructor conducting a PADI Digital Underwater Photographer course must ensure that students have, in their possession, a personal set of materials for study and use during the course and for reference afterward; unless the materials are not available in a language understood by the student.

The following student materials are required for Level One:
- **PADI *Digital Underwater Photographer Manual*** (unless not available in a language understood by the student, though it is still recommended.) The PADI Digital Underwater Photographer eLearning™ program may be used by students to meet this requirement rather than the printed manual.
- **PADI Digital Underwater Photographer White Balance Slate**
- **digital camera with underwater housing**
- **support hardware as necessary, including but not limited to camera batteries, memory cards, o-ring lubricant, etc.**

In addition to the student materials required for Level One, Level Two students must have access to:
- **a computer, drive or other device for downloading and backing up images**
- **a computer, printer or other device (other than the camera) suitable for viewing digital images**

Recommended
The following are recommended, but not required, for Level Two:
- browser and image processing software for practicing organizing and adjusting digital images
- photo quality printer with photo paper and inks

Administrative Requirements

Students complete the administrative forms required for the course level they're taking. Certified divers complete the PADI Medical Statement, Liability Release and Assumption of Risk Agreement, and the Standard Safe Diving Practices Statement of Understanding. Document student training by filling out the PADI Digital Underwater Photographer Specialty Training Record form. Snorkelers participating in the course complete the Discover Snorkeling and Skin Diving Liability Release and Assumption of Risk Agreement, or if appropriate, the Supplied Air Snorkeling Statement.

Special Requirements for 10 and 11-year-old Divers
Prior to the start of Level One or Level Two with 10 and 11-year-old divers, you must have both a parent (legal guardian) and the child aged 10-11 watch the *Youth Diving: Responsibility and Risks* video or review the Youth Diving: Responsibility and Risks Flipchart. Both parent and child must read and sign the Youth Diving: Responsibility and Risks Acknowledgment form. This does not apply to swimming pool-only experiences. The Youth Diving: Responsibility and Risks Flipchart and the Youth Diving: Responsibility and Risks Acknowledgment form are located in the Appendix of the General Standards and Procedures section in the PADI *Instructor Manual*.

Certification Procedures

All participants who successfully complete Level One qualify for the Digital Underwater Photographer Level One certification card. Those who successfully complete Level Two qualify for the Digital Underwater Photographer Specialty certification. Snorkelers receive a Level One or Digital Underwater Photographer Specialty certification card that clearly states that it is a non-diving certification.

The instructor who conducts Digital Photo Dive One submits the completed, signed PIC envelope to the appropriate PADI Office for the Level One certification. **The instructor who conducts the second open water dive (Level Two) submits the completed, signed PIC envelope to the appropriate PADI Office for the Digital Underwater Photographer Specialty certification.** The instructor only needs to submit one PIC for the Digital Underwater Photographer Specialty certification for students who complete Levels One and Two as a single scheduled course.

PADI Assistant Instructors and PADI Divemasters are authorized to teach and certify Digital Underwater Photographer Specialty course participants under the direction of a PADI Instructor who is also certified as a PADI Digital Underwater Photographer Specialty Instructor. The PADI Instructor must cosign the student diver log books and Training Record form after verifying that all performance requirements are met. PADI Assistant Instructors or PADI Divemasters may sign and submit the PIC envelope to PADI for processing.

The instructor cosigning the log book may certify divers as Adventure Divers or Advanced Open Water Divers if the PADI Digital Underwater Photographer Specialty course Dive Two is the final dive needed for certification.

Referrals

Students who complete Level One may wish to complete Level Two with another instructor. Referring instructors should use the PADI Digital Underwater Photographer Specialty Training Record form (see Appendix) to document training.

Credit Toward Other Certifications

Divers who successfully complete Level Two and receive the Digital Underwater Photographer certification may credit Dive Two as an Adventure Dive toward the PADI Adventure Diver and Advanced Open Water Diver certifications. They may also credit the specialty certification toward the PADI Master Scuba Diver rating. There is no credit toward other certifications for snorkelers or Discover Scuba Diving participants for either level.

Course Conduct

The philosophy of the Digital Underwater Photographer program is that you should teach the course in an informal, hands-on fashion. All student-instructor interaction should involve handling, setting up and using cameras, strobes, housing, computers etc. as appropriate to the topic you're covering.

For this reason, the PADI Digital Underwater Photographer course has no presentation outline like you find with most PADI courses. Center your interaction with students around the PADI *Digital Underwater Photographer Manual* or the PADI eLearning® program. You guide briefings and class meetings by going through the Level One and Level Two Knowledge Reviews. At the same time, have students practice with their cameras and other equipment in hand.

When the Materials Are Not Available in a Language the Student Understands

If the course materials are not available in a language the student understands, you conduct the course by taking the students through a printed manual, detailing the information provided on each page, emphasizing techniques and examples in the photos and illustrations. Have students practice with their equipment at the same time. It's recommended that students have their own manual so that you can direct them to take notes in their own language in their manuals for later reference.

A Word About Mastery

In most PADI courses, you look for students to demonstrate mastery of performance requirements. While it's easy to define *mastery* for a technical performance objective in this course, such as properly setting up a camera system, it's difficult to define mastery for an artistic objective, such as composition. Not only can it take years to fully master an art, but "proper" composition or negative space can be subjective. Therefore, evaluate performance in these areas based on your students demonstrating basic application and understanding of the artistic principles.

Hints, Tips and Suggestions

One advantage of the PADI Digital Underwater Photographer course is that you can teach in a wide variety of environments with a wide variety of equipment setups. Attention to a few details will help you and your students have more fun and learn most effectively. Here are several suggestions:

1. **Make "show me" your most common instructional direction.** All your interactions with students, above and under water, emphasize learning and doing. This means having students show you that they can do what you're teaching. For example, after discussing how to white balance a camera, have students practice it with their own cameras. After they say they know what to do, say "Show me," and then watch them, confirming their actions on the LCD monitor and so on. Because you can review digital images, "show me" is especially practical underwater. After students take some pictures, you can signal "show me," review the shots and provide direction during the dive.

2. **Stay shallow.** Stay shallow for both light and *time*. As noted in the course materials, you have stronger light and better colors in shallow water, but you also have long no stop times and air supplies last longer. As a technical/artistic skill, digital photography requires practice. Your students will learn more if they can take 60 images at 6 metres/20 feet than if they dive to 30 metres/100 feet and only have time to shoot 10.

3. **Match the conditions to the assignment.** Conduct the course in the clearest water possible. Clear water is especially important for point-and-shoot cameras. Unfortunately, we don't get to dictate the conditions and you may end up shooting in water with less than ideal visibility. When this happens, be sure your students adjust how they shoot according to the recommendations in the PADI *Digital Underwater Photographer Manual* or eLearning™ program. For example, if the dives take place in low visibility, remind point-and-shoot camera users to turn off their internal flashes and perhaps switch to "macro" mode for close-up focusing. Adding a pool dive when local conditions are not conducive to good photography provides students with the opportunity to achieve good results on their first photo dive.

4. **Choose photogenic dive sites.** Places with inspiring photo subjects go a long way to making learning productive and photos exciting. Think about what looks good in your photos or photos you've seen and try to find similar, shallow sites.

5. **Remind students to follow safe diving practices.** Since underwater photography takes some concentration, divers can be distracted from following safe diving practices. Remind students to maintain contact with their buddy and communicate with each other often. Likewise, monitor student air supplies during the dive and remind everyone to check their SPGs often.

6. **Promote environmentally-friendly photography and diving.** Have your students put preservation of the underwater world ahead of getting good photographic results. During your briefing, remind them to maintain proper buoyancy control and keep off the bottom. Emphasize the importance of not touching or holding on to sensitive aquatic life and to be conscious of where they put their hands, feet and camera equipment. Explain why it's important not to allow equipment drag or dangle, as it may damage the environment or pose an entanglement hazard. Remind then to refrain from harassing, moving or damaging aquatic life for the sake of getting a picture. Set a good example for your students.

7. **Provide color and objects in the pool or confined water.** If you conduct Digital Photo Dive One in a pool or confined water, you have to provide subjects. Besides toys and color charts, a great option is to provide colorfully equipped divers to model for the required diver pictures in the Dive One performance requirements. This also lets students shoot more because they don't have to take turns being the model.

8. **Give students sample pictures to emulate.** Students can learn a great deal by finding underwater photos they love, then trying to replicate a similar shot with respect to lighting, angle, focus, etc. This is a great learning device, but be sure to balance student expectations with respect to equipment and experience. For example, a student equipped with a basic point-and-shoot camera cannot expect to replicate a close/wide shot made using a housed SLR with a dome port and super wide lens. In such cases, steer students to photographs that they can emulate with the equipment they have. As another example, even with identical equipment, beginning students can't expect to get images comparable to a seasoned pro.

9. **Have the equipment available.** Digital photography is an evolving, computer based technology. Your students learn the most when you have an assortment of current-model cameras and types, as well as suitable programs for image organization and processing. The more hands-on (not just watching someone else) experience your students get with various cameras, housings, other components and computers, the more comfort they'll have with moving deeper into digital imaging.

The Discover Digital Underwater Photography Experience

Level One of the PADI Digital Underwater Photographer course can be modified for use as a Discover Digital Underwater Photography experience. This is a simple experience that consists of providing participants with digital underwater cameras that are prepared in advance. You then provide a basic briefing similar to the briefing you would give Level One students who had not had an opportunity to read the PADI *Digital Underwater Photographer Manual* or complete the eLearning™ program in advance. There are no specific performance requirements for this experience, however, and it's recommended that you avoid underwater white balance and other complicated topics. If participants know how to aim, focus and take the picture, they'll have fun and you've met the objective of the experience.

The Discover Digital Underwater Photography experience has no performance requirements and does not result in certification.

Discover Scuba Diving

When conducting Discover Digital Underwater Photography for Discover Scuba Diving participants, follow Discover Scuba Diving standards (including supervision, ratios, maximum depth, etc.).

- **When conducting the program in open water, participants must be taking part in their second or a subsequent Discover Scuba Diving open water experience dive. They may not participate in Discover Digital Underwater Photography during their initial Discover Scuba Diving open water experience dive.**
- **The PADI Instructor conducting the Discover Scuba Diving experience is responsible for participant control and supervision.**
- **When conducting the experience in confined open water or open water, there must be a dedicated "photo pro" who is a PADI Digital Underwater Photographer Specialty Instructor on the dive. The "photo pro" may not be used to increase ratios and is responsible for handling all the cameras, giving the photo briefing and helping the divers with cameras underwater. Since the "photo pro" is not responsible for supervision, he or she may also take photos of the divers entering the water or divers underwater.** When conducting Discover Digital Underwater Photography in conjunction with a pool-only Discover Scuba Diving experience, the use of a dedicated "photo pro" is not required.

Integrating Digital Underwater Photography with the PADI Open Water Diver Course

You may integrate Digital Underwater Photographer Level One training with the PADI Open Water Diver course according to these standards and options.

- **Student divers may participate in a Digital Underwater Photographer Level One dive in confined water, any time after successfully completing PADI Open Water Diver course Confined Water Dive 3.** This is often the most effective way of integrating digital photography into the course.

- **You may integrate Level One Photo Dive performance requirements with the tour portion of Open Water Diver course Dive 4, provided that students have successfully completed all skills for all four Open Water Diver course dives and demonstrated mastery of all performance requirements. On Dive 4 when the last skill is completed and divers continue on a tour for fun and pleasure, you may introduce cameras to the divers and begin Level One dive skills.** Use good judgment, considering factors such class size, remaining air supply and environmental conditions when determining whether to combine the Level One Photo Dive objectives with the Open Water Diver course Dive 4 tour. If divers don't complete all Level One skills on the Dive 4 tour, you can add another open water dive or confined water sessions to enable them to do so.

    In many circumstances, instead of integrating it with Open Water Dive 4, conducting a separate photo dive in a swimming pool will provide an environment more conducive to student learning and to getting best photographic results.

- **The PADI Instructor conducting the Open Water Diver course is responsible for participant control and supervision. When conducting the Level One Photo Dive in conjunction with the Open Water Diver course in either confined open water or open water, there must be a dedicated "photo pro" who is a PADI Digital Underwater Photographer Specialty Instructor on the dive. The "photo pro" may not be used to increase ratios and is responsible for handling all the cameras, giving the photo briefing and helping the divers with cameras underwater. Since the "photo pro" is not responsible for supervision, he or she may also take photos of the divers entering the water or divers underwater.** When conducting a Level One Photo Dive for Open Water Diver course students in a swimming pool, the use of a dedicated "photo pro" is not required.

- **Open Water Diver students may only receive the Level One certification and credit toward the Digital Underwater Photographer Specialty certification *after* they meet all Open Water Diver course performance requirements and are certified as PADI Open Water Divers.**

Level One

Student reads Section One

This is recommended before the dive. Students who do not have the opportunity to do this prior to the dive must do so later. **Students must complete the Level One Knowledge Review to receive the Digital Underwater Photographer Level One certification.**

Discussion and review of Section One (recommended)

- The Digital Revolution
- Digital Cameras – Three Types
- Digital Underwater Camera Systems
- General Digital Photography
- Digital Underwater Photography
- Basic Underwater Shooting
- The PADI SEA Method
- After the Dive

Begin by reviewing the Level One Knowledge Review. Your discussion should be prescriptive based on the student's knowledge level. Hands-on practice is key, so have students apply the skills and functions you're covering with their cameras and housings during your review. Note that the learning objectives are stated informally and appear in the manual and eLearning program in the *Focus on This* boxes.
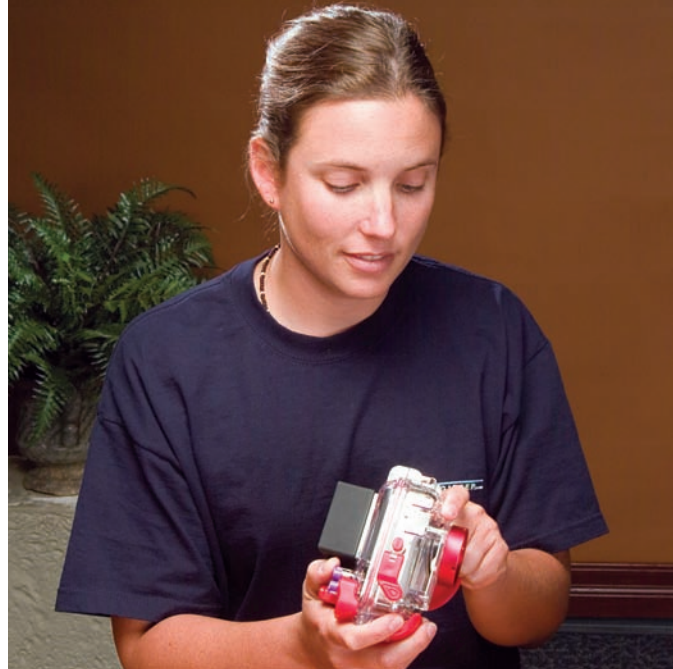
Digital Photo Dive One Predive Briefing (required)

The Digital Underwater Photographer course has been designed for flexibility, making it suitable for situations in which a student decides to take the course at the last minute using camera systems that have already been set up by you or your staff. This is a popular approach for the Discover Digital Underwater Photography experience. Because such students will not have read Section One, **your briefing must review the subsections Digital Underwater Photography, Basic Underwater Shooting and the PADI SEA Method, as well as any other materials necessary to meet the dive performance requirements.**

Your briefing should, of course, cover other dive data including maximum depth, time limits, environmental conditions and suggested entry/exit procedures.

Digital Photo Dive One

You may conduct this dive in a pool, confined water or open water.

Digital Photo Dive One Performance Requirements

By the end of this dive, the student will be able to:

1. **Enter the water safely wearing snorkeling or scuba equipment in a manner that protects the camera system from damage.**

2. **Immediately after entering the water:**
   - **Remove bubbles from the lens and housing.**
   - **Test the various camera housing controls for proper function.**
   - **Visually inspect the camera system for potential water entry.**
   - **Position the camera lens down and be ready to lift the camera system above water if water is entering the housing.**
   - **Take one submerged test shot and start the photo dive.**
3. **While snorkeling or scuba diving, the student will:**
   - **Dive with an underwater photo system demonstrating care for the environment by applying techniques that avoid damaging it.** To meet this objective in a pool/confined water, designate areas/objects on the bottom as "environmentally sensitive" and instruct students to treat them appropriately.
   - **Try to achieve more balanced, natural colors underwater by using preset, preprogrammed "scene" modes or reddish-color filters. Depending on their camera, students may select specific underwater scene modes or use the cloudy-day setting to help them achieve more normal color balance underwater.**
   - **Take horizontal and vertical photos of a dive partner. While taking these photos, students practice:**
     - **Holding the underwater housing in such a manner to avoid blurred photos and obstructing the lens and viewfinder.**
     - **Taking photos of a dive partner from a variety of distances by moving closer and farther away.**
     - **Shooting at an upward angle, when appropriate.**
   - **Take a variety of underwater photos of as many subjects as possible. While taking these photos, students will practice:**
     - **Holding the underwater housing in such a manner to avoid blurred photos and obstructing the lens and viewfinder.**
     - **Getting close to subjects.**
     - **Shooting at an upward angle, when appropriate.**
4. **At the end of the dive, the student will exit the water safely in a manner that protects the camera system from damage.**

Dive One Post Dive Debriefing (required)

The debriefing must include:
   - **A review of student techniques observed, with suggestions**
   - **A discussion of challenges, solutions and what was learned**
   - **A review of student images (in camera) identifying what was done well and what can be improved upon.**
   - **Post dive rinsing and care of photo equipment.**
   - **Instructor signs logbooks.**

Level Two

Student reads Section Two (required)

Students must have read Section One and Two in the printed manual or completed the same sections of the eLearning program prior to starting Level Two. Students must successfully complete Level One before continuing into Level Two.

Discussion and review of photo shooting topics in Section Two (required)

- **Digital File Formats**
- **Choosing Image Resolution**
- **Making Your Underwater Photos Lighter or Darker**
- **Examining and Adjusting Exposure Underwater**
- **Getting Sharp Pictures Underwater**
- **Composing Your Photos for Maximum Effect**
- **Setting Manual White Balance Underwater**
- **Basic Underwater Strobe Use**
- **Using Built-In Flash Underwater**
- **Using External Flash Underwater**

As with Level One, the discussion should be prescriptive based on the learning students exhibit, with an emphasis on hands-on practice. Students should practice the skills and functions discussed with their cameras and housings during the review.

Digital Photography Workflow Workshop (required)

Depending upon the equipment available, conduct a workshop in which students download, back up, organize, process and share (print or email) images. **At a minimum, students must download and back up images, and view their images using a method other than the camera LCD monitor (printed or on a computer screen).** It is recommended that students get hands-on practice with a personal computer equipped with organization and processing software.

The workshop includes a review of these topics in Section Two of the PADI *Digital Underwater Photographer Manual* or **eLearning program**:

- **Digital Photography Workflow Overview**
- **Downloading Images**
- **Backing Up Images**
- **Sorting and Organizing Images**
- **Processing Images**
- **Sharing (Outputting) Images**

If desired, you may conduct the Digital Photography Workflow Workshop after Digital Photo Dive Two using images students obtain on that dive.

Digital Photo Dive Two Briefing (required)

During Digital Photo Dive Two, students apply the principles and techniques they read about and learned for shooting underwater pictures. Briefing topics must include:

- **Performance requirements.**
- **Suitable subjects**
- **Dive time, depth limits, environmental conditions, entry/exit procedures and other safety-related information.**

Digital Photo Dive Two

Digital Photo Dive Two Performance Requirements

By the end of this dive, the student will be able to:

1. Independently assemble and test camera equipment prior to the dive.
2. Enter the water safely wearing snorkeling or scuba equipment in a manner that protects the camera system from damage.
3. Dive with an underwater photo system demonstrating care for the environment and techniques that avoid damaging it.
4. Practice getting proper exposure, contrast and sharpness by using and controlling (as appropriate to the camera system) shutter, aperture, EV control, focus and flash.
5. Practice getting good color by using (as appropriate to the camera system) manual white balance, preset/preprogrammed scene modes, flash, filters and wide angle lenses.
6. Practice composition through choice of subject, subject positioning, negative space and other compositional elements.
7. Demonstrate use of the PADI SEA Method by using (as appropriate to the camera system) the LCD monitor and/or histogram to evaluate exposure, sharpness and composition.
8. At the end of the dive, exit the water safely in a manner that protects the camera system from damage.

Dive Two Post Dive Debriefing (required)

The debriefing must include:

- A review of student techniques observed, with suggestions
- A discussion of challenges, solutions and what was learned
- A review of student images (in camera) identifying what was done well and what can be improved upon.
- Post dive rinsing and care of photo equipment.
- Instructor signs logbooks.

Appendix

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PADI Specialty Training Record

Digital Underwater Photographer

Level One

Knowledge Development

I verify that this student has satisfactorily completed the knowledge development requirements for Level One as outlined in the PADI Digital Underwater Photographer Specialty Course Instructor Outline. I am a renewed, Teaching/Active status PADI Instructor in this specialty.

Instructor Name _____ PADI No. _____

Instructor Signature _____ Completion Date _____

Digital Photo Dive One
Skills Overview

	Date	Inst. Initials	PADI No.

- Enter the water safely wearing snorkeling or scuba equipment in a manner that protects the camera system from damage. _____ _____ _____

- Immediately after entering the water:
    - Remove bubbles from the lens and housing.
    - Test the various camera housing controls for proper function.
    - Visually inspect the camera system for potential water entry.
    - Position the camera lens down and be ready to lift the camera system above water if water is entering the housing.
    - Take one submerged test shot and start the photo dive. _____ _____ _____

- Dive with an underwater photo system demonstrating care for the environment by applying techniques that avoid damaging it. _____ _____ _____

- Try to achieve more balanced, natural colors underwater by using preset, preprogrammed "scene" modes or reddish-color filters. _____ _____ _____

- Take horizontal and vertical photos of a dive partner. _____ _____ _____

- Take a variety of underwater photos of as many subjects as possible. _____ _____ _____

- At the end of the dive, the student will exit the water safely in a manner that protects the camera system from damage. _____ _____ _____

I verify that this student has satisfactorily completed Dive One as outlined in the PADI Digital Underwater Photographer Specialty Course Instructor Outline. I am a renewed, Teaching/Active status PADI Instructor in this specialty.

Instructor Name _____ PADI No. _____

Instructor Signature _____ Completion Date _____

Level Two

Knowledge Development

I verify that this student has satisfactorily completed the knowledge development requirements for Level Two as outlined in the PADI Digital Underwater Photographer Specialty Course Instructor Outline. I am a renewed, Teaching/Active status PADI Instructor in this specialty.

Instructor Name _____ PADI No. _____

Instructor Signature _____ Completion Date _____

Digital Photography Workflow Workshop

I verify that this student has satisfactorily completed the Digital Photography Workflow Workshop as outlined in the PADI Digital Underwater Photographer Specialty Course Instructor Outline. I am a renewed, Teaching/Active status PADI Instructor in this specialty

Instructor Name _____ PADI No. _____

Instructor Signature _____ Completion Date _____

Digital Photo Dive Two
Skills Overview
- Independently assemble and test camera equipment prior to the dive.
- Enter the water safely wearing snorkeling or scuba equipment in a manner that protects the camera system from damage.
- Dive with an underwater photo system demonstrating care for the environment and techniques that avoid damaging it.
- Practice getting proper exposure, contrast and sharpness by using and controlling (as appropriate to the camera system) shutter, aperture, EV control, focus and flash.
- Practice getting good color by using (as appropriate to the camera system) manual white balance, preset/preprogrammed scene modes, flash, filters and wide angle lenses.
- Practice composition through choice of subject, subject positioning, negative space and other compositional elements.
- Demonstrate use of the PADI SEA Method by using the LCD monitor and/or histogram to evaluate exposure, sharpness and composition.
- At the end of the dive, exit the water safely in a manner that protects the camera system from damage.

I verify that this student has satisfactorily completed Dive Two as outlined in the PADI Digital Underwater Photographer Specialty Course Instructor Outline. I am a renewed, Teaching/Active status PADI Instructor in this specialty.

Instructor Name _____ PADI No. _____

Instructor Signature _____ Completion Date _____

I verify that I have completed all performance requirements for this Digital Underwater Photographer Specialty. I am adequately prepared to dive in areas and under conditions similar to those in which I was trained. I agree to abide by PADI Standard Safe Diving Practices.

Student Name _____

Student Signature _____ Date _____

Answer Key

Digital Underwater Photography Knowledge Review Level One

Answer the following questions and hand them in to your instructor for review.

1. Advantages of digital photography over photography with film include (check all that apply):
   - ■ a. **Digital photography is more affordable.**
   - ☐ b. Digital pictures have higher quality than film.
   - ■ c. **You get instant results.**
   - ■ d. **It's easy to share your pictures.**
   - ■ e. **You can adjust your shots for better photographs.**
   - ■ f. **It's more fun.**

2. When entering the water with your camera system (check all that apply):
   - ☐ a. toss the camera in ahead of you.
   - ■ b. **minimize camera impact.**
   - ■ c. **remove bubbles from the port.**
   - ☐ d. descend with the lens facing up.
   - ■ e. **descend with the lens facing down.**

3. What basic steps do you follow for good underwater photographs? (Check all that apply.)
   - ■ a. **Get close to your subject.**
   - ☐ b. Stay as deep as possible for rich colors.
   - ■ c. **Hold the camera steadily.**
   - ■ d. **Shoot at an upward angle.**

4. Underwater, how can you add color back to your photos? (Check all that apply).
   - ■ a. **Use filters.**
   - ■ b. **Use flash.**
   - ■ c. **White balance underwater.**
   - ■ d. **Setting the camera to a warmer, preprogrammed white balance mode.**

5. How do you take underwater photos in a safe, environmentally friendly manner? (Check all that apply.)
   - ■ a. **Maintain proper buoyancy and keep off the bottom.**
   - ■ b. **Check your SPG after each shot.**
   - ☐ c. Maintain physical contact with the bottom at all times.
   - ☐ d. Only touch sensitive aquatic life for important pictures.
   - ■ e. **Maintain buddy contact.**

6. What are the three steps of the PADI Sea Method? (Check three.)
   - ☐ a. Subject – choose the right subject for your photo
   - ■ b. **Shoot – take the photo**
   - ■ c. **Examine – *consciously* check exposure, sharpness and composition**
   - ☐ d. Exposure – check the exposure
   - ☐ e. Absorption – compensate for color absorption by water
   - ■ f. **Adjust – correct exposure, sharpness and composition as necessary**

7. The three steps to follow after the dive to care for your digital underwater camera system include (check all that apply):
   - ■ a. **Rinse the system thoroughly in fresh water.**
   - ☐ b. Remove salt residue with a solvent like paint thinner.
   - ■ c. Dry the system thoroughly before opening it.
   - ■ d. **Store the system.**

Student Statement: Any questions I answered incorrectly or incompletely I have had explained to me, and I understand what I missed.

Signature _____ Date _____

Digital Underwater Photography
Knowledge Review Level Two

Answer the following questions and hand them in to your instructor for review.

1. Which of the following format characteristics apply to JPEGs? (Check all that apply.)
    ■ a. **compressed**
    ☐ b. used mainly for printing photos
    ■ c. **less quality than other formats**
    ☐ d. unprocessed image data
    ☐ e. slow to write

2. What four settings affect exposure? (Check all that apply.)
    ■ a. **aperture**
    ☐ b. housing size
    ■ c. **ISO**
    ■ d. **shutter speed**
    ■ e. **exposure compensation**

3. Why do you need to be cautious about using your LCD monitor to assess your exposure underwater? (Check all that apply.)
    ■ a. **LCD screens tend to have high contrast.**
    ■ b. **LCD screens look more bright/colorful in dim conditions.**
    ■ c. **LCD screens may be hard to see in bright conditions.**

4. What characteristics would you expect from a photograph with this histogram?

    ☐ a. underexposed
    ■ b. **overexposed**
    ☐ c. flat
    ☐ d. contrasty

5. What do you do if your histogram shows you your picture is too bright or too dark?
    ■ a. **Adjust the exposure compensation, or use a different aperture or shutter speed if the camera is on manual.**
    ☐ b. Forget it and go elsewhere.
    ☐ c. Fix it in post processing.

6. Why is negative space important to good composition?
    - ☐ a. It prevents the image from having any tone or feeling.
    - ■ b. **It balances the subject in the image.**

7. To use the Rule of Thirds (check all that apply):
    - ■ a. **mentally divide the frame into thirds both vertically and horizontally.**
    - ☐ b. keep your subject away from these lines or where they intersect.
    - ■ c. **put your subject on these lines or where they intersect.**

8. What helps you get good results from built-in flash underwater? (Check all that apply.)
    - ■ a. **Only use built-in flash in very clear water.**
    - ☐ b. Don't use the white balance.
    - ■ c. **Use a flash diffuser if your housing accepts one.**
    - ☐ d. Stay at least 3 metres/10 feet from your subject.

9. Where do you place an external strobe for good results?
    - ☐ a. Place an external strobe directly next to the lens.
    - ☐ b. Place an external strobe to the side and well below the subject.
    - ■ c. **Place an external strobe away from the camera at an approximately 45º angle to the side or slightly above camera level.**

10. What is the first thing you do after downloading your images?
    - ☐ a. Adjust their quality.
    - ☐ b. Email them to a friend.
    - ■ c. **Back them up to a separate medium.**

Student Statement: Any questions I answered incorrectly or incompletely I have had explained to me, and I understand what I missed.

Signature _____ Date _____