



Santa Barbara City College

MARINE TECHNOLOGY DEPARTMENT

721 Cliff Drive • Santa Barbara, CA • USA • 93109
Phone: (805) 965-0581, ext. 2426/2718 Fax: (805) 560-6059
e-mail: mdt@sbcc.edu
Internet: www.sbcc.edu/mdt

For College Use Only

- Date Rec'd _____
- SBCC App. _____
- C-Card _____
- Med. Hist. _____
- Waivers _____
- App. Fee _____
- MDT-101 _____
- ACDE Phys. _____

APPLICATION FOR DIVING/HYPERBARIC EXPOSURE

Semester starting date Fall Semester _____ Year Spring Semester _____ Year

Have you previously attended or are you currently enrolled at SBCC? Yes No

**(\$50.00 application fee must accompany this application. Enclose check or money order payable SBCC/MDT Dept.)
ALL SECTIONS MUST BE COMPLETED. INCOMPLETE APPLICATIONS WILL NOT BE PROCESSED.**

PERSONAL

Name _____ Age _____ Date of Birth _____
Last First Initial Mo. Day Yr.

Present Address _____
Street Address City State Zip

Phone # () _____ Cell # () _____ FAX # () _____

E-mail address _____

DIVING EXPERIENCE: Attach photocopies of any prior diving certifications to this application

SCUBA QUALIFIED YES NO . If Yes, CERTIFYING AGENCY: _____
CERTIFICATION DATE: _____

(NOTE: BASIC SCUBA DIVING CERTIFICATION IS REQUIRED PRIOR TO APPLICATION BEING FINALIZED.)

STATEMENT OF UNDERSTANDING/TERMS AND CONDITIONS

- Attached with this application is my fifty-dollar application fee, which I understand, is non-refundable (unless denied).
- The Applicant has the right to cancel the Application for Diving/Hyperbaric Exposure and be refunded the entire amount of the Application Fee within ten (10) days of submitting the application fee. Submit cancellation requests in writing.

My signature below constitutes a release to Santa Barbara City College, as their property, all photos taken by the College in which I may appear. I certify that the information I have furnished on this application form is complete and accurate to the best of my knowledge and belief. False information may be grounds for dismissal. I have read and understand the Contraindications to Diving as outlined in the Medical History section of this application. I understand that certain medical information revealed by me in the Medical History section of this application may require further evaluation by a licensed physician at the sole discretion of Santa Barbara City College before acceptance is finalized. I also hereby agree to adhere to SBCC "Standards of Student Conduct", SBCC campus policies and the rules, regulations and safety procedures outlined by the Marine Technology Dept. I understand that my application is for consideration and does not guarantee acceptance for diving or hyperbaric exposure. Applications with outstanding items are "incomplete" until all items are completed.

The application process includes:

- Completion of this Application for Diving/Hyperbaric Exposure and Medical History section of this form.
- Complete the Santa Barbara City College Application (separate from this application- available at www.sbcc.edu).
- Provide proof of diving certification from a nationally recognized agency.

Once the above steps have been completed and prior to the start of training:

- Register for and attend MDT 101, department orientation, typically scheduled one week prior to semester start date. (call 805-965-0581 ext. 2426 for info.)
- Agree in writing to College Waiver and Releases for diving (completed at the time of orientation)



CONTRAINDICATIONS TO DIVING

This list of relative and absolute contraindications is not all inclusive. Contraindications that are absolute permanently place the diver and his diving partners at increased risk for injury or death. Relative contraindications to scuba may be resolved with time and proper medical intervention or may be intermittent. A bibliography is included to aid in clarifying issues that arise. The Divers Alert Network (DAN) physicians are available for consultation by phone (919) 684-2948 during normal business hours. For diving related emergencies call, DAN at (919) 684-8111 24 hours, 7 days a week.

OTOLARYNGOLOGICAL

Relative Contraindications:

- History of...
 - significant cold injury to pinna
 - TM perforation
 - tympanoplasty
 - mastoidectomy
 - mid-face fracture
 - head and/or neck therapeutic radiation
 - temporomandibular joint dysfunction
- Recurrent otitis externa
- Significant obstruction of the external auditory canal
- Eustachian tube dysfunction
- Recurrent otitis media or sinusitis
- Significant conductive or sensorineural hearing impairment
- Facial nerve paralysis not associated with barotrauma
- Full prosthodontic devices
- Unhealed oral surgery sites

Absolute Contraindications:

- History of...
 - stapedectomy
 - ossicular chain surgery
 - inner ear surgery
 - round window rupture
 - vestibular decompression sickness
- Monomeric TM
- Open TM perforation
- Tube myringotomy
- Facial nerve paralysis secondary to barotrauma

- Inner ear disease other than presbycusis
- Uncorrected upper airway obstruction
- Laryngectomy or status post partial laryngectomy
- Tracheostomy
- Uncorrected laryngocele

NEUROLOGICAL

Relative Contraindications:

- History of...
 - head injury with sequelae other than seizure
 - spinal cord or brain injury without residual neurologic deficit
 - cerebral gas embolism without residual, pulmonary air trapping has been excluded
- Migraine headaches whose symptoms or severity impair motor or cognitive function
- Herniated nucleus pulposus

- Peripheral neuropathy
 - Trigeminal neuralgia
 - Cerebral palsy in the absence of seizure activity
- Absolute Contraindications:

- History of...
 - seizures other than childhood febrile seizures
 - TIA or CVA
 - spinal cord injury, disease or surgery with residual sequelae
 - Type II (serious and/or central nervous system) decompression sickness with permanent neurologic deficit
- Intracranial tumor or aneurysm

CARDIOVASCULAR

Relative Contraindications:

The suggested minimum criteria for stress testing is 13 METS.

- History of...
 - CABG or PCTA for CAD
 - myocardial infarction
 - dysrhythmia requiring medication for suppression
 - Hypertension
 - Valvular regurgitation
 - Asymptomatic mitral valve prolapse
 - Pacemakers-Note: Pacemakers must be depth certified by the manufacturer to at least 130 feet (40 meters) of sea water.
- Absolute Contraindications:
- Asymmetric septal hypertrophy and valvular stenosis
 - Congestive heart failure

PULMONARY

Asthma (reactive airway disease), COPD cystic or cavitating lung diseases all may lead to air trapping.

Relative Contraindications:

- History of...
 - prior asthma or reactive airway disease (RAD)*
 - exercise/cold induced bronchospasm (EIB)
 - solid, cystic or cavitating lesion
 - Pneumothorax secondary to: thoracic surgery*, trauma or pleural penetration*, previous over inflation injury*
 - Restrictive Disease**
- (*Air Trapping must be excluded)
(**Exercise Testing necessary)

Absolute Contraindications:

- History of spontaneous pneumothorax
- Active RAD (asthma), EIB, COPD or history of the same with abnormal PFS or positive challenge
- Restrictive diseases with exercise impairment

GASTROINTESTINAL

Relative Contraindications:

- Peptic ulcer disease
- Inflammatory bowel disease
- Malabsorption states
- Functional bowel disorders
- Post gastrectomy dumping syndrome
- Paraesophageal or hiatal hernia

Absolute Contraindications:

- High grade gastric outlet obstruction
- Chronic or recurrent small bowel obstruction
- Entero-cutaneous fistulae that do not drain freely
- Esophageal diverticula

- Severe gastroesophageal reflux
- Achalasia
- Unrepaired hernias of the abdominal wall potentially containing bowel

METABOLIC AND ENDOCRINOLOGICAL

Relative Contraindications:

- Hormonal excess or deficiency
- Obesity
- Renal insufficiency

Absolute Contraindications:

- Diabetics on Insulin therapy or oral anti-hypoglycemia medication

PREGNANCY

Absolute Contraindications:

Venous gas emboli formed during decompression may result in fetal malformations. Diving is absolutely contraindicated during any state of pregnancy.

HEMATOLOGICAL

Relative Contraindications:

- Sick cell trait
- Acute anemia

Absolute Contraindications:

- Sick cell disease
- Polycythemia
- Leukemia

ORTHOPEDIC

Relative Contraindications:

- Chronic Back Pain

- Amputation
- Scoliosis - assess impact on pulmonary function
- Aseptic osteonecrosis

BEHAVIORAL HEALTH

Relative Contraindications:

- History of
 - drug or alcohol abuse
 - previous psychotic episodes
- Developmental delay

Absolute Contraindications:

- History of panic disorder
- Inappropriate motivation for scuba training
- Claustrophobia and agoraphobia
- Active psychosis or while receiving psychotropic medications
- Drug or alcohol abuse

BIBLIOGRAPHY

The Physiology and Medicine of Diving, 4th edition, 1993; Diving and Subaquatic Medicine, 3rd edition 1994; Diving Physiology in Plain English, 2nd edition, 1997

NOTICE OF PHYSICAL EXAM REQUIREMENTS – All trainees who desire to participate in diving are required to complete and submit the SBCC DIVING PHYSICIAN'S EXAMINATION REPORT FORM as required by the Association of Commercial Diving Educators for training and subsequent qualification/certification as a Commercial Diver in accordance with ANSI/ACDE-01-1998 Commercial Diver Training Minimum Standard – and the Association of Diving Contractors (ADC). Trainees must have a qualified licensed physician's clearance to dive prior to beginning any water training. The examination is valid for one year from the date of completion and is accepted by most employers. This examination is required for diving and hyperbaric classes. It is required for all student divers to have a current annual physical examination attesting to their fitness to dive. All divers are required to have a current **MEDICAL HISTORY FORM** on file with the Department (part of the Department Application for Diving and Hyperbaric Exposure), which documents that the Participants are free from medical contraindications to diving.

NOTICE OF SUBSTANCE ABUSE POLICY – Santa Barbara City College and the Marine Technology Department is committed to maintaining a safe, healthy work and training environment and is dedicated to providing a drug and alcohol-free workplace. Safety is of paramount importance to our program. The Marine Technology department's substance abuse and prevention policy incorporates provisions for illicit drug testing. *An industry standard drug screen is a required part of the SBCC DIVING PHYSICIAN'S EXAMINATION REPORT FORM* in accordance with industry protocol.

The goals and objectives of maintaining safety in drug-free work environments are attainable through cooperation at every level and by explicitly and forcefully prohibiting the use, manufacture, distribution, dispensation, and possession of illicit drugs, drug paraphernalia, and alcohol at all our training locations and diving operations under the auspices of the Marine Technology Department.



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COMMERCIAL DIVING MEDICAL HISTORY FORM

SPECIAL INSTRUCTIONS:

It is important that this form be **completed fully** using ink. Complete this form front and back, and give to your attending physician at the time he/she examines you. He/she will then complete the **COMMERCIAL DIVING PHYSICIAN'S EXAMINATION REPORT**. Both the completed *Commercial Diving Medical History Form* and *The Commercial Diving Physician's Examination Report* are then submitted to the Marine Technology Department along with the required lab reports attached. **THE COMPLETED PHYSICAL EXAMINATION FORMS ARE REQUIRED PRIOR TO BEGINNING OPENWATER COMMERCIAL DIVING TRAINING AND FOR SUBSEQUENT INDUSTRY CERTIFICATION.** Incomplete examination reports will not be accepted. You may contact the Marine Technology Department for name(s) and addresses of diving physicians in your area.

Name _____ Age _____ Sex _____

Address _____ Telephone _____

Height _____ Weight _____ Date _____

To the Applicant:

PHYSICAL EXAMINATION REQUIREMENTS

Diving requires you to be in top physical condition. The effects of hyperbaric exposure, cold water, pressure, waves, currents, etc., are a constant strain on the body. A thorough commercial diving physical examination is required before you begin openwater commercial diving training, and required to be followed up every twelve months, with emphasis on the following:

EARS – No permanent perforations of the ear drums, no predisposition to external ear infections, open eustachian tubes (ability to equalize pressure differences across to ear drums).

NOSE & THROAT – Applicant should have no history of chronic tonsillitis, colds and/or other throat infections or sinusitis.

RESPIRATORY SYSTEM – Absence of respiratory conditions that result in poor ventilation or in breathing difficulty. History of Asthma may be disqualifying and applicant should be examined by a M.D. who is experienced in Diving Medicine. Additional testing may be necessary for individuals with a history of respiratory ailments.

CIRCULATORY SYSTEM – The heart should be of normal size and location; heart sounds should be normal; circulatory system tone and response to exercise should be normal.

NERVOUS SYSTEM – Reflex response and psychomotor tension should be normal.

SUBSTANCE ABUSE- Use of drugs and/or alcohol abuse are a contraindication to diving and are not permitted by those participating in diving related activities. In addition, to ensure a drug free and safer workplace, random drug testing is part of the MDT department drug policy for all enrolled students. Students will be participating in industrial activities, diving and life-support operations..

PRESCRIPTION DRUG USE- Certain prescription drugs and medications may pose a contraindication to diving. While side affects may be minimal or non-existent in a non-hyperbaric environment, they may pose significant dangers or unknown side affects in a hyperbaric or aquatic environment where gas partial pressures and tissue absorption rates are changing. List all prescription drugs or medications you are using under "Remarks" on the reverse side and disclose them to the physician.

EYES – Eyes should show a normal accommodation to light and distance.

TEETH & MOUTH – Malocclusions or other oral conditions that might prevent a solid comfortable grip on a mouthpiece

BACK/SPINE – Any injury to the back/spine may be disqualifying for certain diving related occupations and applicant should be examined by a M.D. who is experienced in Diving Medicine. Some employment firms give back X-rays as part of their pre-employment physical exam.

Following recovery from operations, serious illnesses, severe colds, etc., a physical examination is required to be taken for clearance to dive or enter a hyperbaric environment.

I fully understand the above requirements. _____

Applicant's Signature

Date

SANTA BARBARA CITY COLLEGE MARINE DIVING TECHNOLOGY
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NAME _____

1. Have you had any previous diving experience? _____ Have you done any flying? _____ If so, did you often have trouble equalizing pressure in your ears or sinuses? _____ Do you experience unusual discomfort in your ears at the bottom of a swimming pool? _____
2. Do you participate regularly in active sports? _____ If so, specify what sport(s). If not, indicate the type of exercises you normally do. _____
3. Have you ever been refused insurance, rejected or discharged from the armed forces, or denied employment for medical reasons? _____ If so, explain why: _____
4. Have you ever been refused admission, rejected or terminated from any other diving school? _____ If so, explain why: _____
5. When was your last physical examination? Month _____ Year _____
6. When was your last chest X-ray? Month _____ Year _____
7. Have you ever had an electrocardiogram? _____; and electroencephalogram (brain wave study)? _____
8. Do you have a history of asthma? _____ Do you have active asthma at the present time? _____ If you answer "yes" to either question, please describe fully in the "remarks" section below.
9. Do you have a history of back trouble or injury to your back/spine? _____ If so, describe fully in the "remarks" section below.
10. Do you have any metal pins, plates or devices implanted in your body? _____
11. Are you currently using any medications or drugs? _____

ANSWER THE FOLLOWING YES OR NO

HAVE YOU HAD: (If answer is yes, describe fully and in detail showing date in "remarks" section below.)

- | | |
|---|---|
| <ol style="list-style-type: none"> 12. Frequent colds or sore throat..... 13. Hay fever or sinus trouble..... 14. Trouble breathing through nose, other than during colds..... 15. Painful or running ear, mastoid trouble, broken eardrum 16. Shortness of breath after moderate exercise..... 17. Chest pain/persistent cough..... 18. Any indication of blood disease..... 19. Spells of fast, irregular or pounding heartbeat 20. High or low blood pressure..... 21. Any kind of heart trouble 22. Frequent upset stomach, heartburn, or indigestion; peptic ulcer 23. Frequent diarrhea or blood in stools..... 24. Stomach or back ache lasting more than a day or two..... 25. Kidney or bladder disease; blood sugar or albumin in urine 26. Recent gain or loss of weight or appetite 27. Jaundice or hepatitis 28. Tuberculosis 29. Diabetes..... | <ol style="list-style-type: none"> 30. Rheumatic fever..... 31. Syphilis or gonorrhea 32. Broken bone, serious sprain or strain, dislocated joint..... 33. Any indication of bone disease..... 34. Rheumatism, arthritis, or other joint trouble..... 35. Severe/frequent headaches 36. Head injury causing unconsciousness 37. Dizzy spells, fainting spells, or fits..... 38. Trouble sleeping, frequent nightmares, sleep-walking 39. Nervous breakdown or periods of marked nervousness..... 40. Dislike for closed-in spaces, large open places or high places..... 41. Any neurological condition 42. Train/sea/or air sickness 43. Alcoholism, or any drug or narcotic habit (including regular use of sleeping pills; Benzedrine, etc.)..... 44. Any learning disabilities 45. Any serious accident, injury or illness not mentioned above. If so, describe.

 _____ |
|---|---|

REMARKS: (Use additional sheet, if necessary)

I hereby certify that, to the best of my knowledge, I have answered all questions correctly and that I have disclosed all pertinent data in the "remarks" section to all applicable questions that I have answered "yes." I further understand that if I failed to reveal any of my prior medical history, such omission could have an adverse effect on my application to the Marine Technology program, safety as a diver/trainee and my future employability as a Commercial Diver. Intentional omissions or misrepresentations will disqualify the applicant for acceptance and any subsequent application may be denied.

Applicant's Signature _____

Date _____



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COMMERCIAL DIVING- PHYSICIAN'S EXAMINATION REPORT

Applicant's Name	Address
Age	Telephone Number
	City
	State
	Zip

TO THE PHYSICIAN:

This applicant has applied for admission to the Marine Technology Program at Santa Barbara City College for training in commercial diving as a topside diving team member and as a diver. The applicant should complete the Commercial Diving Medical History Form prior to the exam.

All candidate diving personnel must undergo a thorough physical examination prior to being exposed to hyperbaric conditions. Subsequent to the initial examination, all diving personnel are required to be re-examined at 12-month intervals.

The examining physician should interpret any physical findings on the basis of the kind of occupation to which the applicant aspires. For example, a position as an air diver requires a less extensive examination than does a position as a saturation diver, but more extensive than that required for topside personnel. With this as a frame of reference, the applicant's cardio-vascular, gastro-intestinal, genito-urinary and neuro-muscular systems should be assessed to determine if the physical exertion necessitated by the type of diving planned will be harmful to the organ system in question, and if the condition of any organ system would make it difficult or impossible for the prospective diver to carry out the planned exercise or exertion.

OPTIONAL TESTS: Additional laboratory procedures may be employed at the discretion of the examining physician depending upon the strenuousness of the anticipated diving operations. These may include: Stress electro-cardiography, tests demonstrating sensitivity to oxygen and carotid sinus sensitivities, full chest film, pulmonary function tests (i.e., one-second times vital capacity and tests for air trapping), audiogram, radiographic examination for dysbaric osteonecrosis, special blood studies and electro-encephalography.

PHYSICIAN QUALIFICATIONS: **The examining physician must be familiar with and experienced in the physical requirements and medical aspects of compressed gas diving.** In the absence of an examiner with knowledge of hyperbaric medicine, examinations should be made by a physician who understands the need and purpose of the examination, and who has had prior experience in examining individuals who will be exposed to strenuous work conditions and hazardous environments. The "Association of Diving Contractors Consensus Standards for Commercial Diving Operations" section III-B provides examination standards which may be used as a basis for completing the examination. **All completed physical examinations will be forwarded by the SBCC Marine Technology Department or to the department's Medical Review Officer for review, prior to final approval.**

EXAMINATION: (To be completed in its entirety by the Physician- Please examine each of the items below. If considered abnormal indicate under "remarks" the pertinent details.)

- | | |
|--|--|
| Blood Pressure: Systolic _____
Blood Pressure: Diastolic _____
Pulse: Resting _____ 2 min. postexercise _____

1. General Appearance _____
(inc. obesity, gross defects, postural abnorm.)
2. Head and neck _____
3. Eyes (inc. visual acuity for glasses)..... _____
4. Nose and sinuses..... _____
5. Ears _____
(inc. visual acuity, need for glasses Rx)
6. Spine _____
7. Lungs and chest _____
8. Heart _____
9. Abdomen & Viscera _____ | 10. Inguinal rings _____
11. Genitalia _____
12. Anus and rectum _____
13. Upper extremities _____
14. Lower extremities..... _____
15. Neurologic..... _____
16. Skin reactions or eruptions..... _____
17. Psychiatric (inc. emotional stability) _____
18. Chest X-Ray _____
19. Eye grounds exam _____
20. Mouth and throat _____
21. Vital Capacity..... _____
22. C.B.C.- (attach report) _____
23. U/A- (attach report) _____
24. Drug screening (attach report) _____ |
|--|--|

CONTRAINDICATIONS

ABSOLUTE DISQUALIFICATION. Contraindications include:

1. Definite emotional instability or mental retardation
2. Subject to faintness or blackout (i.e., epilepsy, brittle diabetes, dysrhythmias, synocopal attacks)
3. Subject to pneumothorax (i.e., previous pneumothorax, bleb, cystic or obstructive disease of the lungs)
4. Certain cardiac abnormalities (i.e., pathological heart block, valvular disease, interventricular septal defects)
5. Active asthma
6. Diabetes
7. Abnormal findings on drug screening

RELATIVE DISQUALIFICATION. Contraindications include:

1. Gross obesity
2. History of neurological decompression sickness
3. Perforation of tympanic membrane
4. Grossly impaired hearing – A hearing loss of either ear of 35 dB or more, at frequencies up to 3000 Hz and 50 dB or more, at frequencies above 3000 Hz to minimum of 6000 Hz is an indication for referral of the candidate to a specialists for further opinion.
5. History of severe motion sickness
6. Seriously impaired pulmonary function
7. Pulmonary fibrosis
8. Chronic alcoholism
9. Peptic ulcer
10. Chronic hepatitis
11. Sickle cell anemia
12. Disabilities requiring certain medications for control (proper prescription medications may be a contraindication)
13. Renal colic caused by kidney stones
14. Pregnancy
15. Evidence of neurosis, recklessness, accident proneness or panicky behavior
16. Metal pins, plates or devices implanted in the body
17. Abnormal findings on drug screening. (i.e. testing positive on D.O.T. SAMSHA Panel 5 screen)

TEMPORARY DISQUALIFICATION. Contraindications include:

1. Acute alcoholism or drug intoxication
2. Acute gastrointestinal syndrome
3. Acute infections of skin, upper respiratory, ear, etc.
4. Recent incident of serious decompression sickness

REMARKS: _____

PHYSICIAN'S RECOMMENDATION- check one of the following:

APPROVAL: I have thoroughly reviewed the applicant's Medical History form attached herewith. I have thoroughly examined the applicant and attached lab reports as required by this report. I have found no defects which I consider to be incompatible with industrial diving and hyperbaric exposure. **I have found no contraindications to diving .**

CONDITIONAL APPROVAL: (No compressed gas dives or chamber runs will be permitted until approval becomes unconditional. State conditional reasons below:)

DISAPPROVAL: The applicant has defects which, in my opinion, clearly would constitute unacceptable hazards to health and safety in diving.

Physician's Signature

Telephone

Date

Physician's Name and Address (Please print)

Physician's Name and Address Stamp (Required. A business card may be stapled in lieu of a stamp)