FLORIDA A&M UNIVERSITY

DIVISION OF PHYSICAL THERAPY

Florida Agricultural & Mechanical University (FAMU)

School of Allied Health Sciences (SOAHS)

Standard Operating Procedures (SOP)

Manual for the Use of Human Anatomical Specimens

2023-2024

TABLE OF CONTENTS

Section I: Mission, Approved Teaching Faculty, Course Information

1. Mission:

The School of Allied Health (SOAH) is a Florida Agricultural and Mechanical University (FAMU) run program that is identified by the state as an organization responsible for receiving, storing, and utilizing human cadavers for the primary purpose of education. As such, SOAH must comply with the rules, regulations, and standard operating procedures established by the Florida Anatomical Board (the Board) and the State of Florida.

The Mission of the anatomical program associated with SOAH is to utilize human specimens to enhance and improve the education of graduate students who plan on eventually working within the medical field of Physical Therapy or Occupational Therapy. In addition, SOAH also provides educational enhancement for graduate students within the College of Science and Technology (Department of Biological Sciences) to learn and benefit from the use of anatomical specimens. SOAH will manage all Anatomical Board approved body donor resources and ensure that all involved with the handling of specimens will do so in a dignified, respectful and professional manner, and thereby ensure that every health professional utilizing these resources is well-educated to enhance the health and well-being of all people as paraphrased from the Board's mission statement.

The main office of SOAH is located in Lewis-Beck Building Suite 306 of FAMU main campus in Tallahassee, Florida. Anatomical specimens will be received, stored, and utilized in room 001B of Lewis-Beck building. The additional program utilizing the facilities includes the College of Science and Technology Department of Biological Sciences (CST-DBS), the chair of said program is located in room 211 Jones Hall of FAMU main campus.

1.1 Anatomy Education

Preface: Gross Anatomy Teaching Laboratories are rated as Biosafety Level 2 and there is a moderate potential hazard to personnel and the environment. Therefore, all participants in the laboratory shall observe safety precautions and security regulations as described below.

1.1.a. Biosafety Requirements

• **Pledge of Respect:** All individuals requesting access to the laboratory shall promise to follow the rules governing use of Human cadavers in teaching, research, and sign a "Pledge of Respect" document acknowledging these requirements. Forms will be administered by the faculty Instructor of the course; the signed and dated form will be kept on file for the duration of the course.

• **Required Training:** Entrants to the laboratory are required to be training on the potential hazards associated with the work involved, the necessary precautions to prevent exposures, and the exposure evaluation procedures deemed necessary by the Environmental Health and Safety office at that facility. Such training may include, but is not limited to blood-borne pathogen training (required annually) and Laboratory Safety Training. Laboratory safety procedures will be provided in writing and verbally communicated to every incoming group of students or trainees prior to the first gross anatomy laboratory session.

1.1.b. Approved University Courses and Class Purpose: Observation and/or dissection of cadavers shall be solely designated for graduate and undergraduate students in affiliation with the School of Allied Health and College of Science and Technology (Biological Sciences Department). These students shall be enrolled in the program and in a formal course, elective, module, or program sanctioned by the university. The current courses listed as containing anatomy content with clearly defined educational goals, outcomes and have been identified on the Specimen Request Form include Gross Anatomy Lecture and Lab (OTH 5241 and PHT 5115), and Neuroanatomy (OTH 5245 and PHT 5166). Permission for participation in the lab includes all students, relevant school faculty/instructors, volunteer clinical faculty (involved in the respective educational program), and anatomy

laboratory support staff (for preparation and management of anatomical material). It also includes all staff required for emergent situations during educational activities such as janitorial staff, facilities maintenance, IT management staff as needed for cleaning or repair work when cadavers are in view during laboratory sessions.

• All of the above-mentioned individuals shall complete and sign an Anatomical Board Pledge of Respect form prior to entering a laboratory with cadavers in view. These forms will be kept on file by the respective directors or chairperson over the program utilizing the lab space.

1.1.c. Non-University Course Use of Lab Space: In compliance with the Anatomical Board, pre-high school, high school, or undergraduate college students not associated with the course programs mentioned will not be allowed to enter or be given tours of anatomy laboratories when any human cadavers or anatomical specimens are in view. Exceptions to this include high school students enrolled in an educational course/experience with clearly definable educational goals and outcomes that may require studies using skeletons and isolated organs in rooms without cadavers or if the School of Allied Health is conducting interviews/tours of their facilities for prospective graduate students.

• Prior to bringing students into the laboratory, students shall be given an orientation preparing them for the activity they will be engaged.

• Students must complete and sign an Anatomical Board Pledge of Respect form prior to entering a laboratory with cadavers in view. These forms shall be kept on file by the respective programs.

1.1.d. Removal of Specimens from lab: In compliance with the Anatomical Board, no cadavers or anatomical specimens obtained from the Board will leave the approved laboratory for use in any other location in the institution or at any other location that is not an Anatomical Board approved facility.

1.2. Video Recording or Digital Photography in the Anatomy Laboratory

1.2.a. All students shall be informed prior to a course, module or elective that any non-educational video or photography of any type of a cadaver or anatomical specimen in the anatomy laboratory is prohibited.

1.2.b. Video or still photography by faculty or students of non-specimen bones, models, or figures can only be done when cadavers are not in display or visibly observable.

1.2.c. Exceptions to the rule of no Video or still photography of cadavers by faculty or students is only permissible for educational purposes or to document findings related to cause of death using the following guidelines:

- Students or faculty are informed that under no circumstances should videos or photographs be allowed to be put on to the public internet or any other public venue. They can only be used within the institution's password protected intranet that is only accessible by students, faculty, and designated staff (i.e. for video editing).

- Videos or photographs used for educational purposes must not display any identifiable features such as tattoos, shots of the face to include full or side profiles.

1.3. Non-educational Use of Anatomical Specimens

Any and all non-educational use of cadavers on FAMU campus, such as research must have prior approval by the Department and the College program planning on utilizing anatomical specimen and approval from the School of Allied Health, and the Anatomical Board or the Executive Director on behalf of the Anatomical Board.

1.3 a. Non-educational research use of cadaver permission requests must be written and addressed to the Dean of Allied Health, the Director of Physical Therapy, the Director of Occupational Therapy, the associated Dean and Division Director/Department Chair of the program planning on utilizing the cadavers. These requests must include a detailed explanation of the non-educational use of the cadavers and a list of those individuals (e.g., faculty and students) that are not involved in anatomical education, but will be working with the cadavers.

1.3.b. Privacy Rules apply to research on decedents, and thus all research projects on cadavers and/or human specimens provided by the Anatomical Board must have the following:

- A memorandum of intent submitted and signed by all parties involved
- A Submission of a Request for Decedent Research Form to the Board for approval.
- A Submission of a Request for Research Form to the Executive Director of the Anatomical Board for approval.

1.3.c. All individuals involved in non-educational use of cadavers shall complete and sign an Anatomical Board Pledge of Respect form prior to entering a laboratory with cadavers in view. These forms shall be kept on file by the respective programs.

2. Approved Teaching Facility:

Preface: Gross Anatomy Teaching Laboratories are rated as Biosafety Level 2 meaning there is a moderate potential hazard to personnel and the environment. Therefore, all participants in the laboratory shall observe the designated safety precautions and security regulations as described in this document. Specific regulations will differ slightly between classes and any associated facility that is not attached to the main depository. Copies of all regulations to be observed at each facility are attached to this document, and will be made available to all participants in each laboratory course. Regulations will be updated and modified as needed.

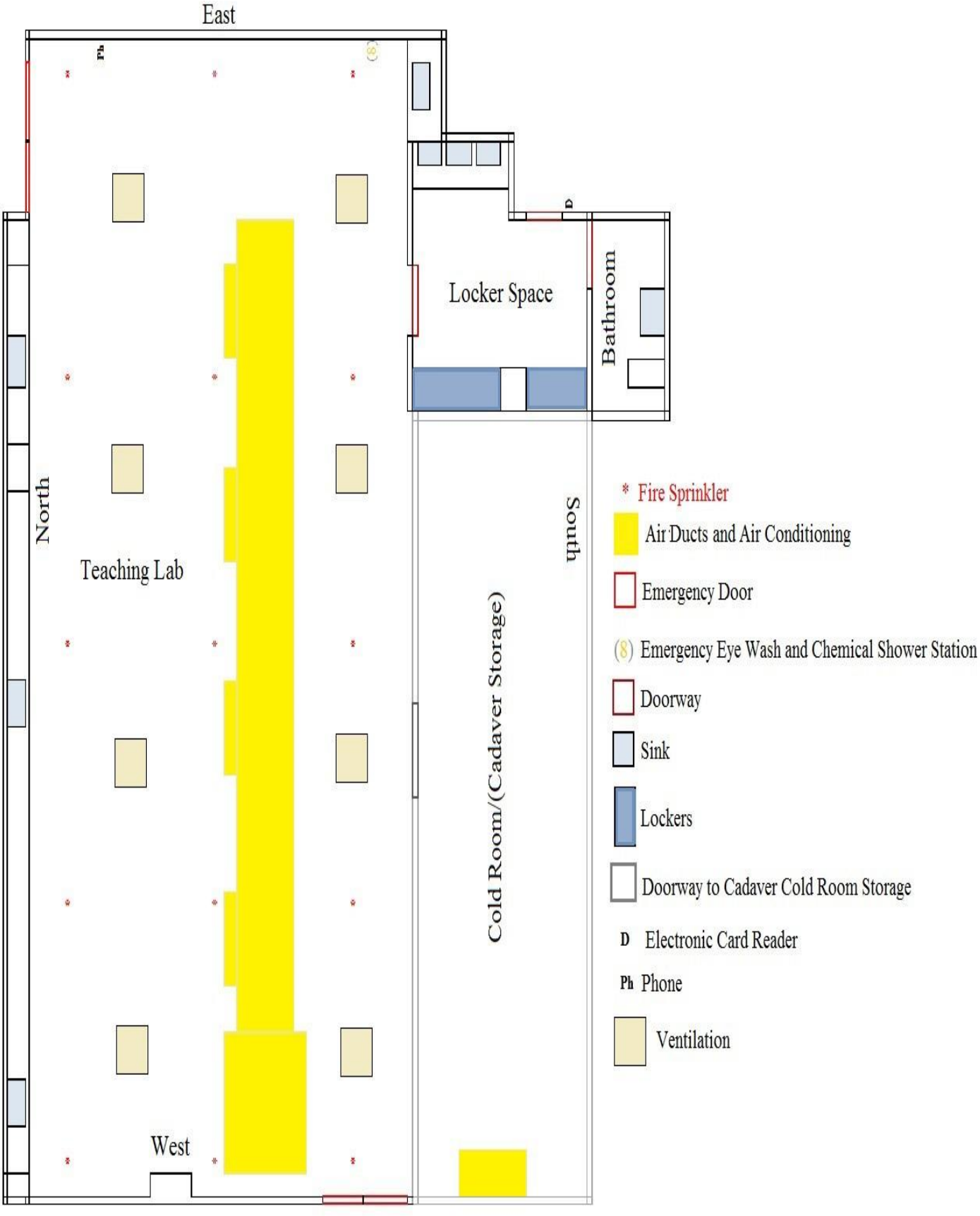
2.1. Location of Approved Facility

The location of the Depository for Anatomical Specimens is housed in room 107 of the Lewis-Beck building 334 Palmer Ave Tallahassee, Florida 32307. Administration of the use of this facility is via the School of Allied Health Sciences.

2.2. Facility Floor plan

The depository is made up of several spaces including: a cold-room storage, teaching lab, locker space, and a bathroom. The facility meets the need for both handicapped and non-handicapped personnel. The entrance to the lab is found on the west side of the hallway leading to the room but on the east wall of the locker room. The entrance is magnetically

locked and linked to an electronic card reader which only opens the door with proper approved FAMU ID. The card can open the door from the outside but a motion detector unlocks the door from the inside. This is the main entrance to the depository space/teaching lab but the room can be accessed via the emergency exits located on the north-east corner and the south-west corner of the teaching lab. Cadavers are stored in a cold room to the south of the teaching lab. Students store personal items and associated lab materials in the lockers on the west wall of the locker space. The teaching lab is approximately 50 feet in length by 25 feet wide by 13 feet in height giving total cubic feet of 16,250. There is an emergency eye wash and shower in the south-east corner of the teaching lab and a first aid kit located in the upper cabinet on the north wall nearest the emergency exit. There is air conditioning and ventilation for the teaching lab and air conditioning for the cold room. Additionally, the teaching lab contains a fire alarm, smoke detector, fire extinguisher, and fire sprinklers in case of fire.


East
Ph
(8)
D
Locker Space
Bathroom
North
Teaching Lab
South
Cold Room/(Cadaver Storage)
West
* Fire Sprinkler
Air Ducts and Air Conditioning
Emergency Door
(8) Emergency Eye Wash and Chemical Shower Station
Doorway
Sink
Lockers
Doorway to Cadaver Cold Room Storage
D Electronic Card Reader
Ph Phone
Ventilation

3. Access to Teaching Laboratory Facilities:

Preface: Access to the teaching laboratories is restricted to designated students, staff and faculty. These individuals will have access during times specified by each facility and faculty member. All approved individuals shall complete an appropriate Pledge of Respect Form associated with their level of authorization or access to the FAMU human specimen depository and lab.

3.1. Approved Teaching Faculty: Approved faculty include all teaching faculty who will be teaching course material in the teaching portion of the depository and utilizing the human specimens stored in the cold room. This also includes any and all instructors, teaching assistants, and exam proctors who meet the approved requirements.

3.2. Approved Non-Teaching Staff: Approved non-teaching staff includes but are not limited to janitorial staff, maintenance personnel, environmental health inspectors, and IT employees all of whom may need access to the depository to ensure facility upkeep and continued functionality.

3.3. Approved Students: Approved students included any and all students who are taking administered courses being housed in the depository facility, have met the approved training, and have signed the Anatomical Board Pledge of Respect.

3.4. Visitation of facilities: No visitors are allowed in the facilities at any time, except by permission of an accompanying faculty member or designated staff, or written permission from The Executive Director or their appointed representative.

3.5. Special at-risk individuals: Persons with medical conditions (allergies, pregnancy) or who are at increased risk of acquiring infection should undergo risk evaluation before entering the laboratory.

3.6. "Pledge of Respect" Forms: an appropriate Pledge of Respect Form shall be read, and signed by each individual who seeks authorization or access to the FAMU human specimen depository and lab. There are forms for faculty, staff, students, and visitors. Once signed, the form will remain kept by SOAHS for the duration of the authorization for that individual. These forms can be found below.

3.6.a. Pledge of Respect for Faculty

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3.6.b. Pledge of Respect for Employees/Staff

Florida Agricultural & Mechanical University
School of Allied Health Sciences
334 W Palmer Ave Lewis Beck Suite 306
Tallahassee FL 32307
Telephone: 1-850-599-3818

ANATOMICAL BOARD OF THE STATE OF FLORIDA

Miami Office:
University of Miami
Miller School of Medicine
Office of Medical Education
P.O. Box 016960 (R-160)
Miami, FL 33101
Telephone: 305-243-6691

Orlando Office:
University of Central Florida
College of Medicine
Health Sciences Campus-Lake Nona
6850 Lake Nona Blvd.
Orlando, FL 32827-7408
Telephone: 407-266-1142

Tallahassee Office:
Florida State University
College of Medicine
1115 West Call Street
Box30643000
Tallahassee FL 32306-4300
Telephone: 850-645-8449

Gainesville Office:
University of Florida
College of Medicine
Health Science Center
PO Box 100285
Gainesville, FL 32610-0235
Telephone: 352-392-3588

Pledge of Respect

Policies and Procedures Applicable to (Name of University)_____
_____ **Employees Who Are Not Faculty, Residents or Students.**

Whenever a donated human anatomical specimen is made accessible to a (Name of University) _____employee, as part of their assigned work, the employee will be required to sign the following pledge prior to having access to a donated human anatomical specimen provided by the Anatomical Board:

Pledge of Respect for the Sanctity of Donated Human Anatomical Specimens

I, the undersigned employee, recognize that the bequest of human remains to the Anatomical Board of the State of Florida represents a direct and important contribution to medical teaching and research. Such donations allow health professional faculty and students the opportunity to closely examine, evaluate, and understand the detailed structure of the human body. Further, the caring and thoughtfulness of such bequests provides physicians and research scientists with the opportunity to gain knowledge that may prolong, improve, or save someone's life. Without such bequests, medical science and health care would suffer devastating setbacks.

In recognition of the generosity of such bequests, I understand that the policy of the Anatomical Board of the State of Florida is to treat donated human anatomical specimens with the utmost respect and gratitude at all times, and I pledge to comply with this policy. I acknowledge HIPAA and other privacy regulations continue to protect individuals' health information after death. I also acknowledge that NO PHOTOGRAPHY of any part of any human specimen is permitted without permission from the Executive Director of the Anatomical Board. I further pledge that the donated human anatomical specimens to which I have access will remain in teaching/research rooms or specific storage space approved for such use by the Anatomical Board, unless a signed authorization for transfer elsewhere has been executed by the Executive Director of the Anatomical Board of the State of Florida or his/her authorized designee. I further pledge to comply with all applicable requirements for timely return of human anatomical specimens to the Anatomical Board of the State of Florida.

_____ _____
Signature Date

Typed or Printed Name: _____

Title: _____

Department/College: _____

3.6.c. Pledge of Respect for Student

Florida Agricultural & Mechanical University
School of Allied Health Sciences
334 W Palmer Ave Lewis Beck Suite 306
Tallahassee FL 32307
Telephone: 1-850-599-3818

ANATOMICAL BOARD OF THE STATE OF FLORIDA

Miami Office:
University of Miami
Miller School of Medicine
Office of Medical Education
P.O. Box 016960 (R-160)
Miami, FL 33101
Telephone: 305-243-6691

Orlando Office:
University of Central Florida
College of Medicine
Health Sciences Campus-Lake Nona
6850 Lake Nona Blvd.
Orlando, FL 32827-7408
Telephone: 407-266-1142

Tallahassee Office:
Florida State University
College of Medicine
1115 West Call Street
Box30043000
Tallahassee FL 32306-4300
Telephone: 850-645-8449

Gainesville Office:
University of Florida
College of Medicine
Health Science Center
PO Box 100285
Gainesville, FL 32610-0235
Telephone: 352-392-3588

Pledge of Respect

Policies and Procedures Applicable to (Name of University) _____ **Students and Residents/Fellows.**

Once a donated human anatomical specimen is made accessible to a faculty member of the (Name of University) _____, the responsibility for the security and proper storage of the human anatomical specimen is that of the faculty member and the faculty member's program. Consonant with this responsibility, every student and resident having access to human anatomical specimens under the supervision of the faculty member will be required to sign the following pledge prior to having access to a donated human anatomical specimen provided by the Anatomical Board:

Pledge of Respect for the Sanctity of Donated Human Anatomical Specimens

I, the undersigned student, resident or fellow, recognize that the bequest of human remains to the Anatomical Board of the State of Florida represents a direct and important contribution to medical teaching and research. Such donations allow health professional faculty and students the opportunity to closely examine, evaluate, and understand the detailed structure of the human body. Further, the caring and thoughtfulness of such bequests provides physicians and research scientists with the opportunity to gain knowledge that may prolong, improve, or save someone's life. Without such bequests, medical science and health care would suffer devastating setbacks.

In recognition of the generosity of such bequests, I understand that the policy of the Anatomical Board of the State of Florida is to treat donated human anatomical specimens with the utmost respect and gratitude at all times, and I pledge to comply with this policy. I acknowledge HIPAA and other privacy regulations continue to protect individuals' health information after death. I also acknowledge that NO PHOTOGRAPHY of any part of any human specimen is permitted without permission from the Executive Director of the Anatomical Board. I further pledge that the donated human anatomical specimens to which I have access will remain in specific teaching/research rooms or storage space approved for such use by the Anatomical Board, unless a signed authorization for transfer elsewhere has been executed by the Executive Director of the Anatomical Board of the State of Florida or his/her authorized designee. I further pledge to comply with all applicable requirements for timely return of human anatomical specimens to the Anatomical Board of the State of Florida.

_____ _____
Signature Date

Typed or Printed Name: _____

Title: _____

Department/College: _____

3.6.d. Pledge of Respect for Visitors/ Invited Guests

ANATOMICAL BOARD OF THE
STATE OF FLORIDA

Miami Office:
University of Miami
Miller School of Medicine
Office of Medical Education
P.O. Box 016960 (R-160)
Miami, FL 33101
Telephone: 305-243-6691

Orlando Office:
University of Central Florida
College of Medicine
Health Sciences Campus-Lake Nona
6850 Lake Nona Blvd.
Orlando, FL 32827-7408
Telephone: 407-266-1142

Tallahassee Office:
Florida State University
College of Medicine
1115 West Call Street
Box30643000
Tallahassee FL 32306-4300
Telephone: 850-645-8449

Gainesville Office:
University of Florida
College of Medicine
Health Science Center
PO Box 100285
Gainesville, FL 32610-0235
Telephone: 352-392-3588

Florida Agricultural & Mechanical University
School of Allied Health Sciences
334 W Palmer Ave Lewis Beck Suite 306
Tallahassee FL 32307
Telephone: 1-850-599-3818

Pledge of Respect

Policies and Procedures Applicable to Invited Guests of the (Name of University) _____
_____ .

Once a donated human anatomical specimen is made accessible to a faculty member of the (Name of University) _____, the responsibility for the security and proper storage of the human anatomical specimen is that of the faculty member and the faculty member's program. Consonant with this responsibility, every invited guest having access to human anatomical specimens under the auspices of the faculty member will be required to sign the following pledge prior to having access to a donated human anatomical specimen provided by the Anatomical Board:

Pledge of Respect for the Sanctity of Donated Human Anatomical Specimens

I, the undersigned invited guest, recognize that the bequest of human remains to the Anatomical Board of the State of Florida represents a direct and important contribution to medical teaching and research. Such donations allow health professional faculty and students the opportunity to closely examine, evaluate, and understand the detailed structure of the human body. Further, the caring and thoughtfulness of such bequests provides physicians and research scientists with the opportunity to gain knowledge that may prolong, improve, or save someone's life. Without such bequests, medical science and health care would suffer devastating setbacks.

In recognition of the generosity of such bequests, I understand that the policy of the Anatomical Board of the State of Florida is to treat donated human anatomical specimens with the utmost respect and gratitude at all times, and I pledge to comply with this policy. I acknowledge HIPAA and other privacy regulations continue to protect individuals' health information after death. I also acknowledge that NO PHOTOGRAPHY of any part of any human specimen is permitted without permission from the Executive Director of the Anatomical Board. I further pledge that the donated human anatomical specimens to which I have access will remain in specific teaching/research rooms or storage space approved for such use by the Anatomical Board, unless a signed authorization for transfer elsewhere has been executed by the Executive Director of the Anatomical Board of the State of Florida or his/her authorized designee. I further pledge to comply with all applicable requirements for timely return of human anatomical specimens to the Anatomical Board of the State of Florida.

_____ _____
Signature Date

Typed or Printed Name: _____

Title: _____

Department/College: _____

3.7. Minimum number of individuals allowed in lab:

3.7.a. In Teaching lab while cadavers are in cold storage room the minimum number of people is one if the person is an approved faculty or staff. However, approved students or visitors must have an approved accompanied faculty or staff with them.

3.7.b. When cadavers are in teaching lab minimum number of individuals should be no less than two if the approved instructor is one of the two. Otherwise, in order to deal with any emergency that might affect an individual, the room should have minimum of three to allow for one person to stay with injured while the other seeks help.

4. Course information: Example Course Syllabus:

Preface: Student education is regulated by the syllabus administered to them at the beginning of the course. This syllabus dictates the material covered and timeframe by which the students will cover material over the period of time for the associated course or courses applicable. The Syllabus for Gross Anatomy Lecture and Lab (PHT 5115) and Neuroanatomy (OTH 5245 and PHT 5166) are included in the SOP below.

FAMU | FLORIDA A&M UNIVERSITY DIVISION OF PHYSICAL THERAPY

PHT 5115 Gross Anatomy Lecture/Lab Syllabus

Number and Title: PHT5115C

Professional Year: Fall 2023

Credit hours and Clock Hours: 4 Credit hours/ 6 Contact Hours.

Time & Location: Lecture Tu/Th 9:30 am - 10:45 am (Lewis-Beck room TBA)
Lab Tu/Th 11:00 am – 12:00 pm

Modality:

☒ Face to Face
☐ AD - All Distance (100% Online)

☐ PD - Primarily Distance (80-99% Online)

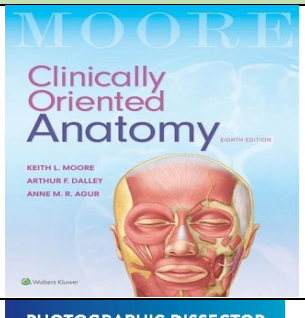
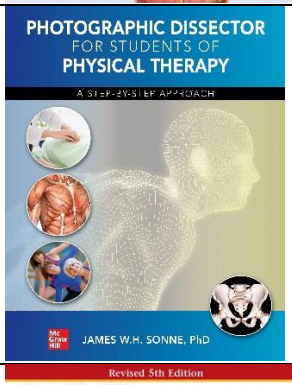
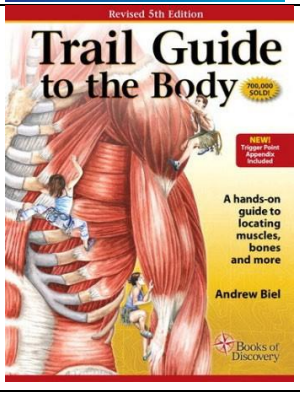
☐ HB - Hybrid (50-79% Online)

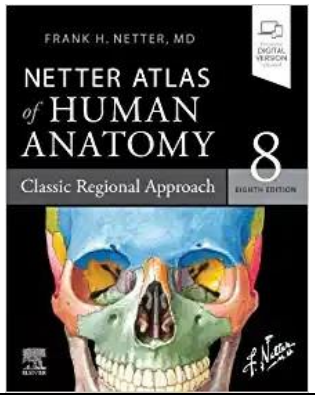
Instructors:

Sherif Gendy, MD, Ph.D.	**Adrian McCollum, Ph.D.**
Lewis-Beck Allied Health Bldg Rm. 308	Jones Hall Rm. 511
sherif.gendy@famu.edu	adrian.mccollum@famu.edu
Office Hours: T/Th 1:00 pm – 2:30 pm	Mon 9:30 am to 12:30 pm

Prerequisite: Successfully completed all the prerequisites for the DPT program admission.

Required text books and materials:

Author(s)	**Text Name/Edition**	**Publisher**	**Picture**
Keith L. Moore	**Clinically Oriented Anatomy (9th or newest Edition)**	**Wolters Kluwer**	
*** James W.H. Sonne**	**Photographic Dissector for Students of Physical Therapy: A Step-by-Step Approach**	**McGraw-Hill Education**	
Andrew Biel	**Trail Guide to the Body**	**Pearson**	

**Frank H. Netter	Netter Atlas of Human Anatomy	Elsevier	

*Textbooks may be accessed digitally through https://accessphysiotherapy.mhmedical.com

** Recommended book

Teaching Methods:

Teaching methods may include lectures, assigned readings, video presentations, group discussions, writing assignments, and laboratory demonstrations. In addition, the following activities/methods will be performed:

Human cadaver lab dissection

3D Platform Complete Anatomy digital platform

Lab dissection videos

Course Description:

Basic Description of the Musculoskeletal System. Lecture and Laboratory with Emphasis Placed on Locating Muscle, Associated Joints, Ligaments, Tendons, Nerves, And Blood Supply. Human Structures Are Reviewed by Regions and Include Clinical Correlations.

Expected Learning Outcomes:

Upon successful completion of this course, the student will be able to examine and compare relationship to case study presentation:

Understand the structures and purposes of basic components of eukaryotic cells, especially macromolecules, membranes, and organelles, acquire the ability to recognize different types of tissue and able to identify the organ of origin form histological slides, *[7A: BIOLOGICAL MAJOR SYSTEMS AND ORGANS, PHYSICAL, BEHAVIORAL & MOVEMENT SCIENCES CAPTE standard]*.

Demonstrate the relationship of anatomical structures of the musculoskeletal system and its peripheral innervations in different body regions, evaluate and interpret current literature related to musculoskeletal and neuromuscular structure and function. *[7A: MAJOR MUSCLE GROUPS/MUSCULOSKELETAL SYSTEM CAPTE standard] a Initial Assessment (IA), [7A: NERVOUS SYSTEM CAPTE standard]*.

Use appropriate anatomical and other scientific language and terminology to effectively communicate with all individuals when engaged in physical therapy practice. Understand the implications of cultural differences as it relates to anatomical structure, including skeletal and integument, the structure and axes of various joints of the body.

Relate anatomical structure and function to systems review and examination, including but not limited to thorax (respiration) alignment of axial and appendicular skeleton for gait, balance and posture, joint structure and function for stability and mobility, muscle structure and location for movement and strength of contraction. *[7A: SKELETAL - JOINT INTEGRITY AND MOBILITY CAPTE standard]*.

Synthesize data obtained through anatomical examination to complete therapy evaluation, process knowledge gained from anatomical examination for purpose of differential diagnosis.

Identify the major organs in the abdominal cavity and pelvic cavities with both male and female orientation. *[7A: BIOLOGICAL MAJOR SYSTEMS AND ORGANS, PHYSICAL, BEHAVIORAL & MOVEMENT SCIENCES CAPTE standard]*.

Demonstrate the relationship between the cardiovascular, pulmonary systems of the body, and blood supply to various regions of the body. *[7A: BIOLOGICAL MAJOR SYSTEMS AND ORGANS, PHYSICAL, BEHAVIORAL & MOVEMENT SCIENCES CAPTE standard]*.

Identify early development of nervous system and malformation, examine and compare normal reflexes versus pathological reflexes. *[7A: NERVOUS SYSTEM CAPTE standard]*.
Identify the difference between normal and abnormal imagining finding. *[7A: Radiographic/Imaging Anatomy CAPTE standard]*.

Course Objectives

Critical Thinking: **(Cognitive Domain)**

DPT graduates will show their capacity to evaluate and utilize published literature critically to support critical thinking, problem-solving, and evidence-based practice, which play a significant role in physical therapy practice, Demonstrate the ability to apply anatomical concepts in systems review for clinical judgment and decision-making.

Content Knowledge: (Psychological Domain)

DPT graduates will exhibit the capacity to examine people for physical therapy or references to other health experts; examine the patient/client to create a suitable diagnosis; design and handle a thorough physical therapy treatment plan; monitor and systemically assess care results

Professional Behavior: (Affective Domain)

The DPT graduates will demonstrate private behaviors that reflect their position and accountability as a professional who advocates for the promotion of health and illness prevention in underserved populations, recognizes the impact of social, economic, legislative and demographic variables on healthcare delivery, and demonstrates their respect for these variables.

D. Cognitive Objectives: Upon completion of this course, students will be able to:

Understand the structures and purposes of basic components of eukaryotic cells, especially macromolecules, membranes, and organelles, acquire the ability to recognize different types of tissue and

able to identify the organ of origin form histological slides, *[7A: BIOLOGICAL MAJOR SYSTEMS AND ORGANS, PHYSICAL, BEHAVIORAL & MOVEMENT SCIENCES CAPTE standard]*.

Demonstrate the relationship of anatomical structures of the musculoskeletal system and its peripheral innervations in different body regions, evaluate and interpret current literature related to musculoskeletal and neuromuscular structure and function. *[7A: MAJOR MUSCLE GROUPS/MUSCULOSKELETAL SYSTEM CAPTE standard], [7A: NERVOUS SYSTEM CAPTE standard]*.

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Identify the difference between normal and abnormal imagining finding. *[7A: Radiographic/Imaging Anatomy CAPTE standard]*.

Course Outline and Schedule
Subject content will be divided into **four** blocks:

1. Module 1: Back and Shoulder
2. Module 2: Upper Extremity
3. Module 3: Lower Limb and Pelvis and Perineum
4. Module 4: Thorax, Abdomen, TMJ

Course schedule

Week	Chapter and Subject in Lecture Book	Chapter
Aug 29	Course Intro Overview	Ch 1

Aug 31	(Anatomical Terminology, Planes, Axes, Joints, system review)	Ch 1
Sep 12	Back	Ch 4
Sep 19	Exam 1 (Class Examination and Lab Practical)	Ch 1&4
Sep 26	Upper Extremity	Ch 6
Oct 03	Shoulder, Elbow	Ch 6
Oct 05	Wrist and Hand	Ch 6
Oct 07th	Exam 2 (Class Examination and Lab Practical)	Ch 6
Oct 10	Pelvis and Perineum	Ch 3
Oct 17	Lower Extremity ;Hip, Knee,	Ch 5
Oct 24	Lower Extremity; Ankle and Foot	Ch 5
Nov 07	Exam 3 (Class Examination and Lab Practical)	Ch 3 & 5
Nov 14	Thorax	Ch1
Nov 21	Abdomen	Ch 2
Nov 28	Head (Temporomandibular Joint)	Ch 7
Dec 07	Final Exam (Class Examination and Lab Practical)	Cumulative

Grades:

Your overall grade will be determined by following activities. There are no make-up exams in this course without an excused absence signed by the Dean. You should speak with your instructor before the test or the week of the test if you need to miss or have missed a scheduled test. There are no make-up quizzes at all regardless of the excuse.

Graded Items	% of Final Grade	Points
Class Participation	7.5%	150
Group Case Study Discussion	7.5%	150
Quizzes	10%	(4 @ 50 points) 200
Lecture Examinations	40%	(4 @200 points) 800
End of the semester Comprehensive	10%	200
Lab Participation and ethics	5%	100
Lab Examinations	20%	(4 @100 points) 400
	100%	**Total Points: 2000**

* All exams, assignments, and quizzes are required to be taken via **Respondus Lockdown Browser** http://www.famu.edu/index.cfm?online&Respondus.

GRADING SCALE: Final grades assigned for this course will be based on the number of total points earned and are assigned as follows:

Total Number of Points Earned	Performance Achievement of Objectives	GPA(Grade)
1800 - 1000	90% to 100%	4.0 (A)
1600 - 1794	80% to 89%	3.0 (B)
1400 - 1594	70% to 79%	2.0 (C)
0 - 1394	0% to 69%	F

Required Technology

Internet connection (DSL, LAN, or cable connection desirable)
Access to Canvas.
Zoom etc
Web Camera
Headset with microphone

Course Structure.
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will use your FAMNet username and password to login to the course from the FAMU Canvas login page.

In Canvas, you will access online lessons, course materials, and resources. At designated times throughout the semester, we may participate in a blend of self-paced and group-paced activities using Canvas and alternative Internet-based technologies. Activities may consist of chat, discussion forums, and web conferences.

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Audio recording and video taping of faculty is allowed during classes at any time and without advance notification. These recordings must be solely for individual use, in support of complaints, as evidence for criminal cases). However, a student may only post or share said recording with written faculty permission. A student cannot record labs, quizzes, exams. -Disciplinary action or additional steps may be taken by the faculty if a student does not comply with these requirements. Unauthorized file-sharing or distribution of all or any portion of a recorded classroom lecture may be deemed a violation of the Student Code of Conduct and other applicable laws. Students who wish to record a classroom lecture as part of an accommodation under the Americans with Disabilities Act shall work with FAMU's Center for Disability Access and Resources (CeDAR) to receive the accommodation.

Class attendance is compulsory for all students. A student will be permitted one unexcused absence per credit hour of the course he or she is attending. A student exceeding the number of unexcused absences may be dropped from the course and assigned a grade of "F". Students may be readmitted to the class with the Director's permission. Refer to the School of Allied Health Sciences' Policy Manual for the excused absence policy.

Participation Students are expected to participate in all online activities as listed on the course calendar.

It is recommended that you access this course a minimum of four times a week.

Assignments must be submitted by the given deadline per the eastern time zone.

MAKE UP EXAMS ARE GIVEN ONLY WITH AN AUTHORIZED EXCUSE. Documentation of signatures on "signature sheets" will serve as evidence of students' attendance to class. It is the responsibility of the student to secure this signature.

Dress Code: Students must remember that this is a professional school and as such the students are to display an appropriate level of judgment with regard to personal hygiene, grooming and wearing of undergarments. Students are required to follow the School's dress code as an integral part of their professional training. Students must attend class dressed in appropriate clothing or they will be sent home to change clothing. In such cases, students will be considered late or absent.

Eating and drinking are not permitted in classroom or laboratory settings.

FAMU's Academic Honesty Policy & Procedures: "All members of, and participants in, the academic life of the University are to be governed by academic honesty in all of their endeavors. Students and faculty are expected to uphold academic integrity and combat academic dishonesty".

Academic Dishonesty/Plagiarism: shall include referring to written information not specifically condoned by the instructor. It shall further include receiving unauthorized written or oral information from a fellow student. In the instance of papers written outside of the class, academic dishonesty shall include plagiarism. Plagiarism may be specifically defined for the purposes of any course by the instructor involved. Unless otherwise defined, plagiarism shall include failure to use quotation marks or other conventional markings around material quoted from any course. shall also include paraphrasing a specific passage from a specific source without indicating accurately its source. Plagiarism shall further include letting another person compose or rewrite a written assignment.

Disorderly Conduct: Behavior that disturbs the peace or undermines public safety, such as causing a disturbance or being unruly; failure to comply with the lawful order or reasonable request of an identified University official, any non-University law enforcement official, any non-University emergency responder, or any protective order.

Disruptive Behavior: Disruption of a class, curricular, or University activity; obstruction of the free flow of pedestrian or vehicular traffic on University premises; interference with the rights of others to carry out their activities or duties at, or on behalf of the University; interference with the freedom of movement of any member or guest of the University; interference with the academic freedom and freedom of speech of any member or guest of the University; or any other act that impairs, interferes with or obstructs the mission, purposes, academic atmosphere, operations, processes, orderly conduct and/or functions of the University or the rights of other members of the University community.

Harassment: Verbal or written abuse (including electronic communications or internet activity), threats, intimidation, coercion and/or other conduct that endangers the health, safety, or welfare of others, or places another individual in reasonable fear of physical harm or creates a hostile environment in which others are unable to reasonably conduct or participate in work, education, research, living or other activities. Harassment also includes actions defined in University Regulation 10.103.

Noncompliance with a University Official's Directive: Failure to comply with oral or written instruction from a University official (i.e. faculty, staff, administration, residence hall staff, law enforcement officer) acting within the scope of their job duties.

Violation of Law: Violation of federal or state law or rules, local ordinance, or laws of other national jurisdictions; Florida Board of Governors Regulation; any other University regulation rule, or University Board of Trustees Policy.

Professional Responsibilities: A student may be dismissed from the program, after due process, by reason of conduct unbecoming a professional student. Furthermore, the Division of Physical Therapy will graduate only those students it deems ready to accept the moral, ethical, and professional responsibilities of the practice of physical therapy. Consequently, the Division reserves the right to withhold recommendation for graduation of any student who does not conform to these standards of readiness.

Unprofessional Conduct: is behavior(s) unbecoming of a professional, including but not limited to: violation of rules, inappropriate dress or language, private conversations during lectures and presentations, rudeness to the professor, classmates, or patients. Each violation will be placed in writing in the student's permanent file. Depending on the nature of the violation or in the event of two incidents, a student will be referred for disciplinary action to the appropriate college/university committee and may be reflected on the student's transcript.

***CELL PHONES, TEXT MESSAGING, HEADPHONES, OR ANY OTHER TELECOMMUNICATION DEVICES OF THIS NATURE WILL NOT BE USED IN CLASS.

**RECORDERS MUST BE PRESENTED TO THE PROFESSOR PRIOR TO USE.

University's ADA Policy Statement: If you have a documented disability and verification from the Center for Disability Access and Resources (CEDAR) and wish to discuss academic accommodations, please contact your instructor as soon as possible. It is the student's responsibility to provide documentation of disability to CEDAR and meet with a CEDAR counselor to request special accommodation before classes start. CEDAR is located at 667 Ardelia Court, Tallahassee, FL 32307 and can be contacted by phone at 850.599-3180

University's Non-discrimination Policy Statement: It is the policy of Florida A&M University that each member of the University community is permitted to work or attend class in an environment free from any form of discrimination including race, religion, color, age, disability, sex, sexual harassment, marital status, national origin, and veteran status as prohibited by State and Federal Statues. This commitment applies to all areas affecting students, employees, applicants for admission and applicants for employment. It is also relevant to the University's selection of contractors, suppliers of goods and services and any employment conditions and practices.

Diversity Statement: In order to learn, we must be open to the views of people different than ourselves. Each and every voice in the classroom is important and brings with it a wealth of experiences, values, and beliefs. In the time we share together over the semester, please honor the uniqueness of your fellow

classmates and others, and appreciate the opportunity we have to learn from each other. Please respect the opinions of others and refrain from personal attacks or demeaning comments of any kind. Finally, remember to keep confidential all issues of a personal or professional nature that are discussed in class.

House Bill 7 (HB7) Conformity:

Fundamental to the institution's mission is support for an environment where divergent ideas, theories, and philosophies can be openly exchanged and critically evaluated. Consistent with these principles, this course may involve discussion of ideas that you find uncomfortable, disagreeable, or even offensive. These ideas are intended to be presented in an objective manner and not as an endorsement of what you should personally believe. Objective means that the idea presented can be tested by critical peer review and rigorous debate, and that the idea is supported by credible research. Not all ideas can be supported by objective methods or criteria. Regardless, you may decide that certain ideas are worthy of your personal belief. In this course, however, you may be asked to engage with complex ideas and to demonstrate an understanding of the ideas. Understanding an idea does not mean that you are required to believe it or agree with it. (Note: Adapted from suggested language from UCF.)

Mental Health Statement:

Being successful in this course is dependent on many factors, including your personal well-being. As a student you may experience a range of stressors that can cause barriers to learning and impact your overall health. The may include anxiety, high levels of stress, depression, trauma, grief and strained relationships. You are a priority and there are a number of people at FAMU waiting to assist you in your academic journey. Please reach out to me if you are experiencing any type of difficulty that many impact your success in this course. In addition, the Office of Counseling Services (OCS) offers FREE, confidential virtual and in-person counseling for enrolled students. To learn more, visit the OCS' website or call (850) 599-3145.

Changes:

This syllabus provides a general plan for the course. Deviations may be necessary.

Professional Year: Spring 2024

Time &Location: M/W 1:00 pm- 2:15 pm Room 113 Lewis-Beck Building (SOAHS)

Modality:

☒ Face to Face
☐ AD - All Distance (100% Online)
☐ PD - Primarily Distance (80-99% Online)
☐ HB - Hybrid (50-79% Online)

Description: Gross features and development of the brain and spinal cord. To include internal organization and structure, pathways, blood supply, and somatosensory systems. Will include neurophysiological concepts, clinical manifestations of the central nervous system, pain pathways, and clinical correlations.

Credit Hours: 3

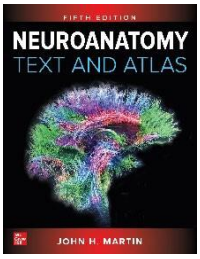
Instructor: Sherif Gendy, M.D., Ph.D., ACUE.

Location: Rm. 308 Lewis-Beck Allied Health Bldg

Email: sherif.gendy@famu.edu **Phone:** (850)412-5695

Office hours: M/W 02:30 pm – 3:30 pm

Required Material:

Author	Text Name/Edition	Publisher	Picture
Martin, JH	Neuroanatomy: Text and Atlas, 5th	McGraw-Hill	

**Textbooks may be accessed digitally through https://accessphysiotherapy.mhmedical.com

Expected Learning Outcomes and Objectives: Upon successful completion of this course, the student will be able to examine and compare relationship to case study presentation:

1. **Critical Thinking**:
   DPT graduates will show their capacity to evaluate and utilize published literature critically to support critical thinking, problem-solving, and evidence-based practice, which play a significant role in physical therapy practice, Demonstrate the ability to apply anatomical concepts in systems review for clinical judgment and decision-making (cognitive domain).

2. **Content Knowledge:**

DPT graduates will exhibit the capacity to examine people for physical therapy or references to other health experts; examine the patient/client to create a suitable diagnosis; design and handle a thorough physical therapy treatment plan; monitor and systemically assess care results (psychological domain)

3. **Professional Behavior:**

The DPT graduates will demonstrate private behaviors that reflect their position and accountability as a professional physician who advocates for the promotion of health and illness prevention in underserved populations, recognizes the impact of social, economic, legislative and demographic variables on healthcare delivery, and demonstrates their respect for these variables, (affective domain).

4. **Cognitive Objectives:** Upon completion of this course, students will be able to:

1. Describe the brain's gross anatomy, brainstem, and spinal cord and analyze the external and internal features of the central nervous system, including CNS, PNS, ANS, and classify neurons according to histological and functional criteria. [*7A: NERVOUS SYSTEM CAPTE standard] c, d, e, f, h, and i Midpoint (MP).*
2. Explain the embryological development of the nervous system and how developmental alterations can impact neurological functioning. [*7A: NERVOUS SYSTEM CAPTE standard] g Midpoint (MP).*
3. Classify neuronal synapses according to their function and examine the process of neural transmission from peripheral receptors to the CNS. [*7A: NERVOUS SYSTEM CAPTE standard] a Initial Assessment (AI).*
4. Assign Brodmann's numbers and functions to the cerebral cortex, diencephalon, hypothalamus, cerebellum, and basal nuclei to correlate the signs and symptoms associated with their lesions. [*7A: NERVOUS SYSTEM CAPTE standard] e Midpoint (MP).*
5. Explain the function of the meningeal layers, ventricular system, and cerebral circulation and describe hydrocephalus types and their potential cause.
6. Diagram, the anatomical organization of the sensory and motor systems and the interactions of their multiple components associated with the different types of receptors and define the locations of major ascending and descending spinal cord tracts and correlate the neuroanatomy of major ascending and descending tracts to pathologic clinical signs and symptoms. [*7A: NERVOUS SYSTEM CAPTE standard] i Midpoint (MP),* [*7A: PATHOLOGY CAPTE standard] c, d, and e Initial Assessment (AI).*
7. Describe the auditory, vestibular, and visual systems' anatomy and physiology and their central pathways and lesions. [*7A: NERVOUS SYSTEM CAPTE standard] j Midpoint (MP).*
8. Evaluate Nervous System dysfunction as a consequence of (stroke) disruptions in blood supply and compare the theories of neural plasticity and their impact on development, recovery of function and

learning and describe neural plasticity and neurogenesis and factors that influence, including age, socioeconomic status, culture, nutrition, motivation, and co-morbidities. [*7A: NERVOUS SYSTEM CAPTE standard] k Midpoint (MP).*

Grades:

The following activities will determine your overall grade. There are no make-up exams in this course without an excused absence signed by the Dean. You should speak with your instructor before the test or the week of the test if you need to miss or have missed a scheduled test. There are no make-up quizzes at all, regardless of the excuse.

Graded Items	% of Final Grade	Points
Class Participation	2%	10
Case Study Discussion	8%	(4 @ 10 points) 40
Quizzes	10%	(5 @ 10 points) 50
Lecture Examinations	80%	(4 @100 points) 400
	100%	**Total Points: 500**

Grade Scale:

Total Number of Points Earned	Performance Achievement of Objectives	GPA(Grade)
450 - 500	90% to 100%	4.0 (A)
400 - 444	80% to 89%	3.0 (B)
350 - 394	70% to 79%	2.0 (C)
300 - 344	60% to 69%	1.0 (D)

Less than 300	0% to 59%	0.0 (F)

* All exams, assignments, and quizzes are required to be taken. Class quizzes will be made up of in-class, attendance, and blackboard quizzes.

Required Technology

- Internet connection (DSL, LAN, or cable connection desirable)
- Access to Canvas.
- Zoom etc
- Web Camera
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Course Structure.

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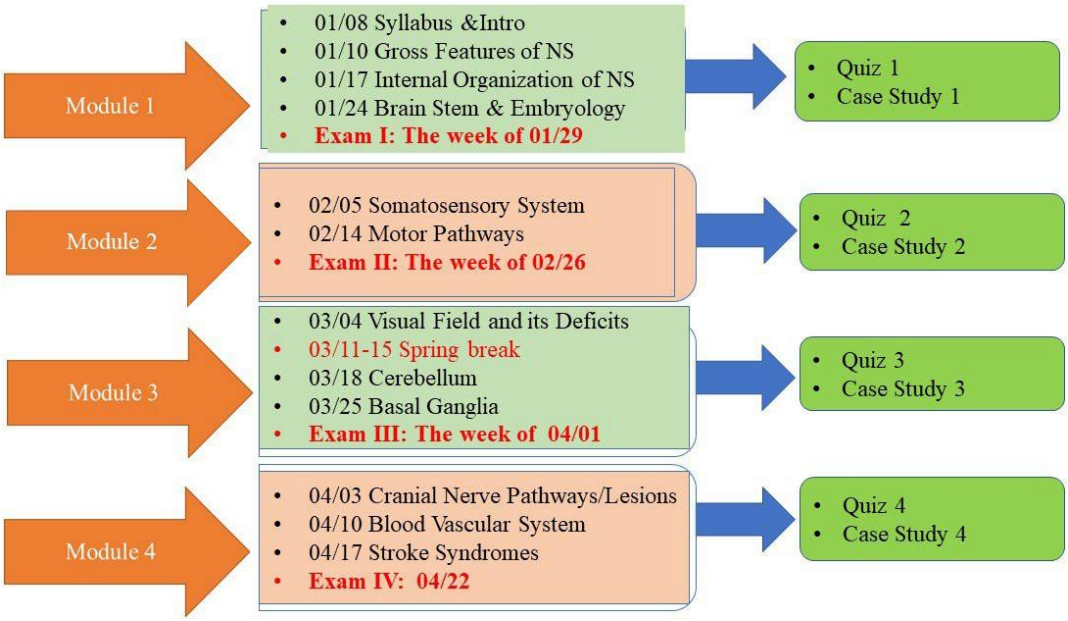

*Course schedule are subjective to change according to circumstances.

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**RECORDERS MUST BE PRESENTED TO THE PROFESSOR before USE.

University's ADA Policy Statement: If you have a documented disability and verification from the Center for Disability Access and Resources (CEDAR) and wish to discuss academic accommodations, please contact your instructor as soon as possible. It is the student's responsibility to provide documentation of disability to CEDAR and meet with a CEDAR counselor to request special accommodation before classes start. CEDAR is located at 667 Ardelia Court, Tallahassee, FL 32307 and can be contacted by phone at 850.599-3180

University's Non-discrimination Policy Statement: It is the policy of Florida A&M University that each member of the University community is permitted to work or attend class in an environment free from any form of discrimination, including race, religion, color, age, disability, sex, sexual harassment, marital status, national origin, and veteran status as prohibited by State and Federal Statues. This commitment applies to all areas affecting students, employees, applicants for admission, and applicants for employment. It is also relevant to the University's selection of contractors, suppliers of goods and services, and employment conditions and practices.

Diversity Statement: To learn, we must be open to the views of people different from ourselves. Each and every classroom voice is important and brings a wealth of experiences, values, and beliefs. In the time we share over the semester, please honor your classmates and others' uniqueness and appreciate the opportunity to learn from each other. Please respect the opinions of others and refrain from personal

attacks or demeaning comments of any kind. Finally, remember to keep confidential all issues of a personal or professional nature discussed in class.

House Bill 7 (HB7) Conformity:

Fundamental to the institution's mission is support for an environment where divergent ideas, theories, and philosophies can be openly exchanged and critically evaluated. Consistent with these principles, this course may involve discussion of ideas that you find uncomfortable, disagreeable, or even offensive. These ideas are intended to be presented in an objective manner and not as an endorsement of what you should personally believe. Objective means that the idea presented can be tested by critical peer review and rigorous debate, and that the idea is supported by credible research. Not all ideas can be supported by objective methods or criteria. Regardless, you may decide that certain ideas are worthy of your personal belief. In this course, however, you may be asked to engage with complex ideas and to demonstrate an understanding of the ideas. Understanding an idea does not mean that you are required to believe it or agree with it. (Note: Adapted from suggested language from UCF.)

Mental Health Statement:

Being successful in this course is dependent on many factors, including your personal well-being. As a student you may experience a range of stressors that can cause barriers to learning and impact your overall health. The may include anxiety, high levels of stress, depression, trauma, grief and strained relationships. You are a priority and there are a number of people at FAMU waiting to assist you in your academic journey. Please reach out to me if you are experiencing any type of difficulty that many impact your success in this course. In addition, the Office of Counseling Services (OCS) offers FREE, confidential virtual and in-person counseling for enrolled students. To learn more, visit the OCS' website or call (850) 599-3145.

Section II: Gross Anatomy Teaching Laboratory Policies and Procedures

1. Cadavers

Preface: The core premise behind the courses administered in association with human specimens is to have a full understanding of the working of the human body. Hence it is necessary that students going into a professional career, especially in the field of health care, have the opportunity to be exposed the intricate dynamics of the human anatomy as best as possible. This currently can only be achieved by the use of human specimen. Thus SOAHS is ensuring the best and most competitively qualified students in their fields by providing a location where students can learn with human specimens. These specimens are provided to SOAHS with the sole understanding that they are to be used for anatomy education.

1.1. Information of Facilities Providing Body Donors

1.1.a. Board Specimens

• Human anatomical specimens requested for use by teaching and/or research programs on FAMU campus, which have been inspected and approved pursuant to Chapter 406.59, Florida Statutes, will receive bodies from the Anatomical Board. These specimens shall meet the strict stands and guidelines necessary to protect the health and safety of all individuals involved in the handling of said specimen(s). Human specimens will be assigned an identifying number provided by the Anatomical Board which will remain with the human anatomical specimen from the time it is delivered to the time it is returned back to the Anatomical Board for the specimen to be cremated.

• Human anatomical specimens when delivered are kept in body storage bags (zippered disaster pouches) where the bodies will be kept for the duration of their use and returned in the bag upon retrieval by the Anatomical Board technician. The body and any tissues of sufficient mass will be identified as separate specimens removed as part of the study shall be returned in the bag

at the end of the use of the specimen(s). Furthermore, the metal tag with the identifying number must remain on the body at all times.

1.1.b. Donated bodies from other sources:

Human Specimens that are to be donated to the depository at FAMU must meet the requirements that are set by the Anatomical Board. For this purpose all human specimens to be stored at the FAMU depository must first be submitted to the Anatomical Board and must follow the strict procedures there in. Any funeral home interested and willing to submit bodies to FAMU must complete information and forms which are to be completed by the funeral home prior to the delivery of a human body to the Anatomical Board. The Funeral Home Information Packets will contain:

- Instructions for Anatomical Donations
- Forms Required for Anatomical Donations
- Vital Statistics Form
- Declaration of Consent Form for Surviving Relatives
- Declaration of Consent Form for Surviving Non-Relatives (i.e., Healthcare Surrogate, Guardian, Court-Appointed Representative Ad Litem, or Personal Friend). The Anatomical Board will not accept the deceased if the surviving relative or legally authorized non-relative objects to the use of the remains for education or research.
- Ashes Requested Form
- Permission to Dispose of Ashes Form

The above forms and information is available on the following websites:

- ***University of Florida***:
  http://anatbd.acb.med.ufl.edu/funeralhome/
- ***University of Miami:***

http://sofab.med.miami.edu/printable-forms

- ***University of Central Florida:***

https://med.ucf.edu/media/2016/08/funeral-packet-UCFCOM-new-2017-filable.pdf

1.1.c. Letter of Authorization

If the program and facilities are approved for the receipt of human anatomical specimens, the Anatomical Board will send a letter of authorization and will provide an authorization to transport specimens to approved facilities at time the specimens are received.

1.2. Obtaining and Transport of Registered Human Cadavers

1.2.a. Bodies obtained from the Anatomical Board are transported to and from the FAMU depository by a sanctioned and approved transportation provider.

1.2.b. Bodies that are donated from a funeral must first be transported to the appropriate facilities for secondary embalming at an approved Anatomical Board site. Delivery of a human body to the Anatomical Board requires the forms discussed in section II part 1.1.b. as well as a photocopy of the death certificate and a burial transit permit with cremation authorization from the medical examiner. Furthermore, the payment of costs incurred in performing the preliminary embalming and in transporting the human body to the Anatomical Board shall be the responsibility of the family of the deceased or the funeral home willing to donate the body. Once delivered to the Board transport of the bodies will be conducted by the above mentioned board approved transportation provider.

1.3. Receiving and Storage of Human Anatomical Specimens Prior to Dissection

1.3.a. Approved Faculty associated with the FAMU depository with meet with the technicians of the Anatomical Board delivering the donated human remains to the designated loading dock area.

1.3.b. The Anatomical Board technician will place the human body onto dissecting tables which will then be placed into the refrigeration unit of the SOAHS FAMU Human Specimen Depository. Associated paperwork pertaining to the delivery of the specimen(s) will be signed and filed with SOAHS as needed.

1.3.c. The Anatomical Board assigns a number to the donated human body and thus the receiving party must ensure that each cadaver has an assigned number attached. This number will be used to identify the donated body throughout the time that the donated body is in the possession of SOAHS and upon return of said specimen(s) back to the Anatomical Board. The number will be engraved on a metal tag with a notation that the human anatomical specimen belongs to the Anatomical Board of the State of Florida and that the tag is not to be removed from the body.

1.3.d. The faculty assigned with the responsibility of the bodies while in the possession by SOAHS will ensure that the cold room is secure and only accessible by approved faculty, staff, students, and visitors. The cold room/refrigeration unit will be unlocked while human specimens need to be accessed but doors connecting to the lab will remain locked and only opened by approved authorized individuals.

1.3.e. SOAHS will ensure that donated bodies, or any parts from said bodies are not used for any other purpose outside of learning or training and will not be used for "Body Farms" or similar entities that use cadavers for forensic purposes, or allow bodies, or any parts to be displayed by the general public for educational, entertainment, or artistic purposes.

1.4. Handling of Human Remains after the Completion of Use

1.4.a. As per required by the Anatomical Board, the faculty are responsible for the return of the specimens after use in a timely fashion. If the specimens are required

beyond the time request then a written extension should be submitted and filed with the Anatomical Board. Material that may be retained for other teaching or training purposes, such as brains used in Neuroscience, will be turned over to the department requesting the material or if done with said material it can be sent to the Health Science Center Teaching Laboratories. The department receiving the material is then held responsible for the security, storage, and timely return of the material.

1.4.b. All material extracted from the human anatomical specimen that will not be kept for teaching purposes must be returned with the appropriate matching specimen. Tissue must be included in the cadaver bag and specimen must have ID tag attached.

1.4.c. Upon completion of the use of the human anatomical specimen(s), the cadavers will be returned to the Anatomical Board for cremation. To ensure the appropriate returned body specimen correlates with the specimen that was originally dropped off, the technicians will log into his/her logbook the return date and the specimen number and the submit that information back to the office of the Anatomical Board. Once the specimen(s) is/are removed from the depository and in the custody of the Anatomical Board technician it is no longer the responsibility of the SOAHS.

2. Student Responsibility

2.1. Student Access to Human Cadavers

Students cannot have access to human cadavers until the student signs either the Anatomical Board "Pledge of respect form" or the SOAHS modified "Pledge of respect which includes the standard expectations and SOP that the SOAHS has for each student. SOAHS "Pledge of respect" can be found in the SOP below. In addition, students must also complete the training on the FAMU blackboard system. Students must meet during appropriate class times and be responsible for preparatory and clean up procedures before and after each Laboratory Session.

2.1.a. SOAHS required "Pledge of Respect"

GROSS ANATOMY LABORATORY PLEDGE OF RESPECT

The bodies available for dissection were donated by individuals who wanted their remains to be used for education and research. As a health care practitioner, you are *privileged* to have the opportunity to use this anatomical donation. The rules of the anatomy laboratory are based upon PATIENT PRIVACY, RESPECT, SECURITY, SAFETY, and MAINTENANCE. These rules will be observed in the laboratory **AT ALL TIMES**:

Respect

1. **The anatomical donors are to be treated with the utmost respect at all times**. Inappropriate or improper behavior and/or comments within and outside the laboratory is/are unacceptable.

2. The articulated skeletons, skulls and isolated bones are to be afforded the same respect as the cadavers.

3. **Do not remove the numbered tag from your cadaver.**

4. The cadavers are to be properly maintained. Any suspicion of mold or rot should be reported to the facility director immediately, since it can rapidly spread throughout the body and to other donors in the room. The plastic body bag should be closed after each dissection. **Take good care of your cadaver – it is the best teacher you have in this course.**

5. All cadaver waste tissues are to be properly disposed of. No other waste is to be disposed of in the cadaver waste bins (see below for the disposal of other waste).

6. Dissection tables should be kept clean and free of excessive tissue.

7. **The right of privacy and confidentiality due to all medical patients is extended to our anatomical donors at all times.**

8. Cadavers will be appropriately draped at all times. All regions not being studied should be draped. Entirely cover the cadaver when leaving it for any period of time.

9. Use of cameras, cell phones or other photographic or video equipment is not permitted in the laboratory at any time unless specifically authorized by the course administration.

10. Only students, faculty and other authorized personnel are allowed in the gross anatomy lab. Under no circumstances may a student bring an unauthorized visitor into the lab. Permission to bring a visitor into the lab can be granted but is restricted to healthcare professionals or individuals with an approved academic purpose.

11. **NOTHING leaves the lab without the permission of the facility administrator or the course director.**

12. Food and/or drinks are not allowed in the laboratory.

Security

1. Keep the doors of the laboratory closed **AT ALL TIMES**.

2. Do not share your bone box with anyone except your partners to prevent loss of bones.

Safety

The following safety procedures are in place to prevent injuries and limit exposure to chemicals:

1. Students must wear long pants and closed shoes whenever they are in the laboratory. Open-toed or perforated shoes (e.g., sandals), shorts and skirts are not to be worn in the anatomy lab. You will be asked to leave the laboratory if you are in violation of this dress code.

2. Students must wear a lab coat when in the lab. It is your responsibility to maintain your lab coat in a reasonably clean condition. The faculty will insist you wear your lab coat regardless of how dirty it is.

3. Gloves must be worn throughout the dissection period.

4. Eye protection must be worn whenever you are within five (5) feet of an open cadaver. Regular eyeglasses are sufficient eye protection. Students must wear safety goggles when using hammers, chisels, bone pliers and Stryker saws.

5. All used scalpel blades must be disposed of in the provided "sharps" containers. Never dispose of "sharps" in wastebaskets or garbage cans (see below for the disposal of other waste).

6. All injuries incurred in the gross anatomy laboratory, no matter how insignificant they may appear, must be reported immediately to an instructor. The instructor will administer first aid and determine whether the student should be directed to a facility for further treatment.

7. In case of an EMERGENCY, use the lab phone to call the police (9-911).

8. Students who are pregnant, or believe they may be pregnant, are responsible for discussing attendance in the gross anatomy lab with their physician.

Maintenance

1. The laboratory must be kept neat at all times and you are expected to clean your area after each day's dissection. This includes emptying the specimen tissue bucket at the end of your table and wiping up any large spills from the floor as needed. You are provided space for storing your atlases and dissection tools – please use it! Atlases and tools that are left on the counters will be placed in the lost and found box. Note that proper trash disposal is as follows:

cadaver (tissue) waste – cadaver waste container

gloves and cadaver-soaked paper towels, paper towels, paper, etc. – regular gray containers

blades – red sharps disposal boxes located on counter tops

Anatomy Laboratory Policy

I have read the rules and regulations of the gross anatomy laboratory and understand that any violation thereof is a breach of professional conduct.

_____

Printed Name

_____ _____

Signature Date

2.1.b. Scheduled Class Days and times:

Preface: Student and faculty exposure to hazardous chemicals will be limited to the times that the students or the faculty come into the lab and the duration in which they stay. This can indirectly be determined by their scheduled class days and times.

• ***Gross Anatomy Lab (PHT 5115 L)*** is scheduled for 3 hours a day for three days a week, (Tuesday and Thursday) every week within the fall schedule of 4 months not including holidays and breaks.

• ***Gross Anatomy Lab (OTH 5241 L)*** is scheduled for 3 hours a day for three days a week, (Monday, Wednesday, and Sunday) every week within the fall schedule of 4 months not including holidays and breaks.

• ***Neuroanatomy (PHT 5166)*** has a lab activity that will occur for one day per month for no more than 1 hour per class session during the spring semester.

• ***Neuroanatomy (OTH 5245)*** has a lab activity that will occur for one day for no more than 1 hour during the spring semester.

2.2. Student Responsibility before and after each Laboratory Session

2.2.a. Student Responsibility before each laboratory Session

• Students shall ensure that no food and open drink containers enter the lab or locker room

• First person in must make sure that all lights are turned on in the refrigeration unit, the teaching lab, the locker room, and the bathroom.

• Before entering the teaching lab, students shall ensure that they are appropriately dressed for the lab. This includes scrubs or a lab coat covering the clothing of the student prior to entering the teaching lab space.

• Student shall place all non-essential materials in the lockers prior to entering the teaching lab. This is to ensure that preservatives do not contaminate materials that may leave the class.

• During days of dissection students shall put on gloves immediately prior to removal of human specimens from the refrigeration unit. Additionally, students shall have their dissection kits and appropriate dissection tools prepared prior to the removal of the cadavers.

• Cadaver tables will be carefully removed and positioned into the teaching lab with an appropriate amount of space between cadaver tables so as to ensure no accidents or crowding occurs during the dissection. Furthermore, the tissue reservoir (specimen bucket) for the cadaver shall also be removed from the refrigeration unit and placed near the cadaver table.

2.2.b. Student Responsibility after each Laboratory Session

• Reposition cadaver onto dissection table so that the body and limbs can fit inside cadaver bag. Ensure that the body its associated parts are put back in a correct anatomical position. Clean dissection table and place any tissue removed from the cadaver in the appropriate receptacle (specimen tissue bucket). If skin has been removed from cadaver then spray the cadaver with Carosafe fluid to preserve specimen. Cover specimen with cadaver sheet and close the cadaver bag. Return cadaver table back into the refrigeration unit.

• Remove any dull blades from the scalpels used and clean all instruments that were used on the cadaver. Place any classroom tools back to their appropriate location.

• Clean the area where the dissection table was located, especially the counters and floor area to prevent accidents or accidental exposure to preservatives.

• Remove soiled gloves and dispose of them in the appropriate containers. Wash hands after removing gloves and before exiting the laboratory.

• Last person to leave laboratory shall ensure all doors are secured, the lights are turned off in the refrigeration unit, teaching lab, locker room, and the bathroom.

2.3. Cadaver Dissection Instructions

2.3.a. A high degree of precaution shall always be taken with any contaminated sharp items, including needles and scalpels.

2.3.b. Do not wave or point with scalpels or other sharp objects. Always keep scalpels in plain view.

2.3.c. If a blade becomes detached from the scalpel handle during a dissection, notify all members of dissection team immediately, stop and attempt to retrieve the blade using forceps. If this is unsuccessful, close the body bag / dissection table, alert faculty and place a warning notice on the specimen.

2.3.d. Never remove body tissues from the laboratory.

2.3.e. Never remove the State of Florida Anatomical Board ID tags from the specimen.

2.3.f. Place disposable materials in the appropriate containers.

2.3.g. All dissection procedures are to be performed carefully to minimize the creation of splashes or aerosols.

2.3.h. Broken glassware shall not be handled directly by hand, but shall be removed by mechanical means such as a brush and dustpan, tongs or forceps. Place in sharps waste containers for disposal.

2.3.i. Spills and accidents that result in overt exposures to infectious materials (body fluids) are to be reported immediately to the laboratory director.

2.3.j. All wastes are to be placed in the appropriate containers for proper disposal.

2.3.k. If mold is detected on the specimen, notify faculty, disinfect instruments and post a **DO NOT USE** sign on the closed body container until lab personnel can address the issue.

2.4. Other Uses for the Anatomical Labs

The Anatomical Board allows approved facilities the use of non-living animal material in the anatomical labs. However, living animals or materials that are from living organisms are not

approved to be stored or maintained in the depository. Furthermore, any samples stored in the FAMU depository are the responsibility of the Department or College requesting storage. Thus maintenance or upkeep of these material are not the responsibility of SOAHS.

3. Safety Precautions and Environment Protection Procedures.

Preface: Faculty, staff, students, and visitors upon entering the lab run the risk of injury or exposure to hazardous materials. To ensure that health and safety of any and all participants SOAHS, in following the Anatomical Board guidance on safety precautions and environmental protection, has assimilated a series of precautions that will assist in reducing risks as well as procedures that can be undertaken in case injury or accidental exposure to hazardous chemicals does occur. These procedures and precautions have been incorporated in the SOP and are shown below.

3.1. Universal Precautions

3.1.a. Attire: At a minimum, the following attire must be worn at all times while work is going on in the laboratory.

- Lab coats (three-quarter length) with long pants or Scrubs
- Disposable gloves
- Closed toed shoes (no sandals or open-toed shoes)
- Additional attire that may be used but not required includes barrier equipment such as safety glasses, masks, or face shields. These items can be worn by those who feel it necessary or when appropriate for use against anticipated splashes or splatters to the face.

3.1.b. Dealing with attire after lab use: Attire can be exposed to human specimen and preservative chemicals that may be biohazardous and should be dealt with appropriately.

• **Soiled lab coats:** These garments are not to be worn outside the laboratory area. Furthermore, all disposable protective clothing is disposed of within the laboratory; it shall never be taken home.

• **Used Gloves:** Disposable gloves shall be worn when handling potentially infectious materials, contaminated surfaces or equipment. Gloves shall be disposed of when overtly contaminated, when work with cadaveric materials is completed, or when the integrity of the glove is compromised. Disposable gloves are not to be washed, reused, or used for touching "clean" surfaces, and should not be worn outside the lab. Hands will be washed thoroughly with soap and water following removal of gloves.

3.1.c. Activities not permitted in the laboratory: eating, drinking, applying cosmetics including lip balm, handling contact lenses, gum chewing or smoking.

• Food or drink shall not be stored within the Teaching lab but can be housed in the locker room. Eating, drinking, or chewing gum is not allowed in any space including the locker room or bathroom.

• Students, faculty, and staff shall not wear contact lenses in the laboratory due to the potential hazards that can become entrapped under the contact or interact with the contact and affect the vision of the individual. These precautions shall be made clear prior to entrance to the lab.

• Cosmetics have been shown to adhere to preservatives used in the lab and thus students, faculty, and staff are encouraged not wear it while participating in dissection within the lab.

• Smoking is prohibited.

3.2. Injuries in the Laboratory:

3.2.a. If serious illness or injury occurs call 911. Give building and location where aid is needed, specific location within the building, type of problem, individual's condition, sequence of events, and medical history if known. Have somebody stay with the patient until

help arrives. Do not move the patient; keep the patient still and comfortable. Once help arrives, stay out of the way unless assistance is requested.

3.2.b. All injuries in the laboratory shall be reported immediately to the faculty, staff or lab directors. In all cases, a written report, documenting the injury shall be made to the University Environmental Health and Safety Department.

3.2.c. Laboratory protocol in the event of injuries is displayed in clear view on the east wall of the teaching lab near the emergency eye wash station.

3.3. Facility Emergency Exit Locations, Safety Signage positions, and Location of safety equipment: All signage in the laboratories, location of emergency equipment and procedures for fire or other emergency are listed below:

• **First aid kit** – Located in upper far right cabinet on the north wall nearest the emergency exit in the teaching lab.

• **Eye wash and emergency shower** – Located on the east wall closest to the sink in the south-east corner of the teaching lab.

• **Emergency Exit** – Located on the north-east corner and south-west corner of the teaching lab.

• **Fire Extinguisher** – Located on the east wall closest phone on the east wall and the emergency exit on the north-east corner of the teaching lab.

• **Telephone** – Located on the east wall on the bookcase between the emergency exit at the north-east corner and the fire-extinguisher on the east wall.

• **Fire instructions and Laboratory protocol in the event of injuries** - Posted on the east wall near the emergency eye wash and shower in the teaching lab.

3.4. Safety Data Sheet (SDS)

Preface: Faculty, staff, students, and visitors can be exposed to various levels of chemicals used within the lab. To ensure the health and safety associated with said chemicals an SDS for each potential hazardous chemical will be provided and kept to make everyone aware hazards and PPE Required. SDS sheets are incorporated in the SOP and shown below.

FLORIDA A&M UNIVERSITY

Department of Environmental Health and Safety

Working with Formaldehyde

Formaldehyde is well known as a preservative in research laboratories, as an embalming fluid, and as a sterilizer. Urea-formaldehyde (UF) and phenol formaldehyde (PF) resins are also used in foam insulations, as adhesives in the production of particle board and plywood, and in the treating of textiles.

Although the term formaldehyde describes various mixtures of formaldehyde, water, and alcohol, the term “formalin” is used to describe a saturated solution of formaldehyde dissolved in water with another agent, most commonly methanol which is added to stabilize the solution. Formalin is typically 37% formaldehyde by weight (40% by volume) and 6-13% methanol by volume in water. A typical laboratory formulation is called 10% buffered formalin solution. It contains about 3.7% formaldehyde, 1.5% methanol, 2 % buffers, and about 93% water. The formaldehyde component provides the disinfectant and preservative effects of formalin.

The *National Toxicological Program's (NTP) 12th Report on Carcinogens* classifies formaldehyde as "known to be a human carcinogen". It has been reported to cause nasal tumors. Formaldehyde is a sensitizing agent that can cause an immune system response upon initial exposure. Acute exposure is highly irritating to the eyes, nose, and throat and can make anyone exposed cough and wheeze. Subsequent exposure may cause severe allergic reactions of the skin, eyes and respiratory tract and can lead to olfactory fatigue, defined as the inability to discern the odor of formaldehyde. Ingestion of formaldehyde can be fatal, and long-term exposure to low levels in the air or on the skin can cause asthma-like respiratory problems and skin irritation such as dermatitis and itching. The National Institute for Occupational Safety and Health (NIOSH) considers 20 ppm of formaldehyde to be immediately dangerous to life and health (IDLH). When present in the air at a concentration above 0.1 part per million, formaldehyde can cause watery eyes, nausea, coughing, chest tightness, wheezing, skin rashes, allergenic reactions, and burning sensations in the eyes, nose, and throat. Exposure to airborne concentrations of formaldehyde must be limited to an average of 0.75 ppm over an 8-hour workday.

Safe Handling Procedures:

- All laboratories that work with formaldehyde must have a written Standard Operating Procedure (SOP).
- All work with formaldehyde should be conducted in a well ventilate space such as a fume hood or under a properly designed and installed exhaust system to prevent exposure by inhalation
- Splash goggles and impermeable gloves (nitrile, PVC, butyl rubber, Viton) should be worn to prevent eye and skin contact.
- Formaldehyde should be used only in areas free of ignition sources. Store formaldehyde in labeled, chemically compatible containers, away from heat and flame. Always place large-volume containers on a low, protected shelf or in another location where they will not be accidentally spilled or knocked over. Containers larger than 4L (1 gallon) should be stored inside a deep pan or other secondary containment. Do not store formaldehyde bottles in any area where a leak would flow to a drain.
- Containers of formaldehyde should be stored in secondary containers in areas separate from oxidizers and bases.
- An eyewash and safety shower shall be available if splashing of formaldehyde is likely.
- Be sure that formaldehyde solutions are clearly labeled with the chemical's name and hazards. As with any laboratory chemical, do not mouth pipette formaldehyde solutions. Do not eat, drink, or smoke where formaldehyde is handled, processed, or stored, since the chemical can be swallowed. Always wash hands thoroughly after using formaldehyde, even if gloves are worn.
- All procedures using formaldehyde are to be performed in designated areas. There is a space on the laboratory hazard communication door sign to designate the formaldehyde. All designated areas should be posted with a sign that contains the following information:

WARNING
DESIGNATED AREA FOR HANDLING THE FOLLOWING
SUBSTANCES WITH HIGH ACUTE OR CHRONIC TOXICITY:
Formaldehyde – Carcinogen
AUTHORIZED PERSONNEL ONLY

Emergency Procedures:

Formaldehyde Spills

If formaldehyde is spilled outside a chemical fume hood, evacuate the area, close the laboratory doors, and post the area to prevent others from entering. If the incident occurs during regular work hours (Monday to Friday, 8 a.m. to 5 p.m.), call EH&S (599-3442 or 3443) for assistance in cleaning up the spill. After hours, call FAMUPD (599-3256); they will contact EH&S responders. Provide information or other assistance to emergency responders as requested.

Inhalation of Formaldehyde Vapor

If someone inhales a high concentration of formaldehyde vapor, immediately move the person to fresh air and call Student Health Services (599-3777). When Student Health Services is closed, go to emergency room

at Tallahassee Memorial or Capital Regional Medical Center. If the person is having trouble breathing, call 911 for immediate medical attention.

Splash of Formaldehyde to Eyes or Skin

For eye or skin exposure, immediately flush with plenty of water for at least 15 minutes. Remove contaminated clothing and contact Student Health Services. In case of ingestion, call 911 for immediate medical attention. As with all accidents, report any exposure as soon as possible to your supervisor.

Exposure Limits

The Permissible Exposure Limit (PEL) for formaldehyde in the workplace is 0.75 parts per million (PPM) of air measured as an 8-hour time-weighted average (TWA). The standard includes a second PEL in the form of a short-term exposure limit (STEL) of 2 ppm which is the maximum exposure allowed during a 15-minute period.

3.4.a. Formaldehyde

ThermoFisher
SCI NTIFIC

SAFETY DATA SHEET

Ore:afian D.alB, OB-Feb-2010 | Raviis'ian Data, 17-Ja.n-20'18 | Revi1;ioin,Number 4

1. ItlentIfIcatIon

Produic'I: Name	Formaldehyde solution 37%
Cat N.o.:	FT,5F-1GAL: F7SP-1GAL; **nsp** FJ,5P-:2JD
s.y.n,anyms	Form n, Melhanal; Methyfene oxide; Oxymelhane; Rotr1T1icaWhyde; Methyl.a ahyde
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2. Hazad(s) Identification

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Acut oral I.oxfully	Ca agary 2
Acula 11dermaltoxiic:ily	Ca agary2
Acuta Inhalalioo To.xicily - Vapors	Ca agary 2
Skin Ootrro5iaw1Hitaliion	Ca agary 1 B
Seri!HIIS Eye Da1111199a/Eye Imlal:ioo	Ca agary 1
Skin Sem,itizalioo	Ca agary 1
Genn Cell M!Jtagenicily	Ca agary 2
Carciioogenirily	Ca agary 1A
Spacific target organ Dx'icily (sinigle e,xporural	Ca agary 1
Target Organs - Regpiralory system. Canbriill111a1MJ11.1s system (ONS)\.Oplic na1Ye.	
Spacific target organ IDx'iaily - (repealed ,a:,;posur,e)	Ca sgary 1
Target Organs - Kil sy. Lili'8r. Heart, splean, Btoodl	

Label IElementa

Signal Worn
Danger

HazaFd Smtemenh;
F1la11111ma1Jle liquid and vapor
To.xic if i;wa'ltowed
To.xic in OOlliltacl wilh 6'kin

Causes :sa\laire skD!Ibum:sand eye dall1118i!!Ja'
May c.au:sa.**BIll** largic :skin reaction
Toxic if inhaled
May c.au:sa, **ra** DIIY irrila1ian
May c.au:sa.dll'OWma:s:sor di1zz'ines.s
S115pacted of ca1116ing geneuc defeds
May cau:sa,,canoN
Cal!ISeSdamage 11.o otrgans
Cal!ISeSdamage 11.o otrgans l!hnJ1111gh pl'dlOJ1ged or **r,apea ad** e,xpo6111ra

Pncaulionaiy statement!;
PJll!lj'anlion
O:t:rtain e;pacia-l E.1nileiliOJ1a barotie 11SE1
[)a, not hBlldfe l!IITl!iI all safely Pf8CSUlioos nii1j'l8 baE!iilr,**aa,d** and l!ll'TdE!IIStood
li.J6'13 par.sonal protective elilUipmanl. BEi req-,rad
Wa:sh Jaae, hands Blld any e,xpo:sed 6'1olin ihonJ1111gijy aftar hBlldling
[)a, no.taat, dri ,oo:sma8ie whE!iil1116ing lhi:s pirodu cl.
li.J6'13only O!!l'ldoor,soo in a wel-venlilated araa
[)a, not lbraal!ha,dus1/fumalgaslmiBllvaporat:spr.ay
Ocmtam;rna ad work dlothirng e.hDllld not be Bllowad ool of l!he wotikplaDB
Waar p:ra acii\i'Elgloves
Kee;p away fi,om heatl:sp kslopan llameslhot6unaaas_- No :smo'king
Kee;p ,can1ainar light£y ,**ciosad**
Grnundi'booo oont.a iner and reca'iving el!ILiipimenl
li.J6'13alllp'losion-p,,oof ,afedricaUvantilal!ing!lighl!ingl'eliluipimenl
li.J6'13only nDill-S,P mg toots
Take pMcaulionary **rneasl!ll'ElB**againE.1s:taliic,di,schar:ge
Kee;p,cool
Rai,,p,an:s,e
Immedrately ca2l a POISON CBNfTER or doclo.rlphy:siciarn
In'hailatioo
IF INHALED: Ra1111mre vicl<im l:o Jra:sh air and loiae:p al res.l in **a** po51.1ioo co:mforta'bfe Joo bl',aatfiing
Skiin
Wash OOtll!amina ad clbthing lbefcir,a,rallSEl
IF ON SKIN (or airj: Tak.e ofJimmadrately oont.aminated dol!hing_Rinse sloiin wil!h waterfe.hawer
If 6liin-m a iOJlo:r rash ,oocurs: Gal.medteal ad\i'iceJ'atten!!ion
Eyes.
IF **IN** EYES: Rinse caul!iou:s[ymlih wate.r for s.everal m illK!rtes. R,a1111mre **oonlad.lanses,** ifpir,a:salllf:and easy 11.odo. Oanmiue IIVl5IDQ
inQ!@i;lion,
Rin:sa 1mot111!h
[)a, NOT ind!IIDBvom il!irng
Fiire
In case o:f lira: li.J6'13CO2, dry chemical\.o:r foa111fo1,rairl!inction
S iB
S Dffl lociloied up
S Dffl irn a we'll-vool!Jaled plaCB_Keap cotlteiiner lightly dlo:sed
Dt potial
lligpose o,fco:n alllf::sfco:nlainer to an ,approved waste disposal pfanl
Ha2-snJl§,gpt gt:br:l!Wi§l Pli§§ified(HNOCl
None ililan1iffed
other hi!Zii.rds
Paii60n, may ba fa1BI o:r cau:sa,blmdness if s.walowed. Vapor hanmrul CanlllOI ba made lllOn-po:isonou:s_

WARN[NG. Repl'OO!llctiw HBml - h1lp:s1fwww.p65vtamings.ca.gov/.

3.Co osition/Information on Ingredients

Com..,,,nent	GAS-Ho	We'lol!t};.
Water	7732-1B..:5	45-48
Formal\:lehvda	50-0CJ-O	.3.7-40
Melh'ii ah:::dhol	67-56-1	1,5,

4. First-aid measures

General A.dVilt:e

Immediate medical ailan ion i,sre,quiired! Show lhi:ssafely ,dBta :sheet D lha,dootor ill allandanae.

Eve Co:ntaci:

R:in:sa,immedia a[ywith p'lantyolwater. a:!so underilha e!f8'1ids, for al leaat-15 rninu a:s.111 l!he,cae;eof oontacl: with eya:s., **rinse·mmaclialely** w.ilh ple:niy of we er arnd aeak.maclical advroe..

S in Contact

Wa:sh olrimmediately wiih ple<nly ofwaterfo.ral lea:st 15 minu a:s. lllilllliledia a,medical allaniioo is rBQllired.

In'hailation

If breal!hing is d[fficul , giue oxygen, Do Di ue;e mou l -1.o-mou n malhoo• iieiti inga:sted rnr inhaled he :sidl5.1Bnce; giv,a artificial ra:sp;iraliion wilh·l!he aid of a po,cket ma:s'k eq,· ped 'oritil a oneawayvalve orolher p1,operr,a:spiralorymedm **clevice.** Mowe lofi,a:s'h a·. Immediate medical atletitliicm is **r,a(Jlirad.**

Ingestion

DD not·ndtlce wmil!inQL Oall a phy:s ician orlRDi'= Con.aid Cani:elrimmediately.

II.to-st rrnpcntt:ant syrnpmrns and affects

Bireathing diffiadties. Causes. ooms lby.lll ,**a:,;posur,e** l1Hilleo... May CB1111Eie .alle:rgic raaciion. _ Symptoms of ,o..,airexipo:sure **ma1 be** aadache, **d ne&S,** t!ir,a a:ss. noosaa and vomiliing: Producl.is a oomJcive **malarial.** Use of gas.too **lEfllBl!!lB**·o,car1111esis i:s ,oonlraindtcated. Pos:sibla palfuraiiDII of s.fumach ,oc,ra:sopt,a s sm.outd **be**·n\la:sliigated: IJilgesliDII causes sewr,e Eivte'llin:!!j, SB'i"3'ledamage,to Iha dalocateliarua,aoo danger of perfuraliDII: S:;illilprorns,ofalleflJjic,r,aaclian llilay iiildllllde rash, itching, :swalllllg, llroubla breathing. Ungling of·the hands and raet. dizziirna:ss.. lighihe.adedness. mast p·n, mu6ci'.e pa'irnor fluEihing

ND1:as to Phy.si'cran

Tr,aat clfmplomalicalty

5. Flre-4itlhtfn1measures

Suitable·bt[nguii;;htng**Madia**.

Gaol closed CN1tai111,Brs eiqm:sad D firs,with water spray.

Um;1.11tabl\e E:,;lilng111i1ihlng **M:ediia**

IIID infDrllilation ,B'i'Bifalb[e

F!lililih Po'lnt

50 °C / 122 °F

Metlmd-

Illa·n Drllilation ,B'i'Bil'able

Amoi;Q,iiliun **"Jl'.amperaluJa**·

l\lo infDrllilation .a'i'aifalb[e

EJciploi;;hm lbimiti.

U,roier

Illa dais ,B'i'aiable

l.owar

Illa da a ,B'i'aiable

Sans'ilir,,ily to,Maehan'lc:ial Impact

Illa·n Drllilation ,B'i'Bifabl'e

Sans'Jlir,,ily to, Stalic IJ'lscharge

Illa "nfDrllilation ,B'i'Bifalb[e

Specific Hamrdsi Ari,i;[ng frDrn the Gham'ical

Rlallilma'b'la,_Conlainar:sffia'.i explode Ydia11hes ad. Vapoffi *may* furm e:.ip'loswa mi:,;l:t!Jre,sw'ith air. V:apo:r:sffia'.i ilmvel Ito :sD!!I,□e of igniliion aoo lla6h back_The prod!leil,cau:ses bmn:sofeye,,s, din and lllil.OOOIJIBmerribmlila:s._Themal daoomposiitioo ,c;an lead Ito

relaase ,al "mlaiing gasas and VBpOIIS.

Hazamo11&Combustion,Pirm:lm:lli
H'f(ilrogan RItimaldehyda
Prol:ectiiva,E.quipm1mt and Pracaldkms fm fitrefighl:e:ra
Thanna'l de,oomposiiioo can l'.ead o ral'.ease **aI"** nlaling EJa6BS and vapors. As in Blil'j' lira, wear self-corrta ined lbraatihiBRPar.aJus ptrE18S!!M"•a-<lamand1MSf-WNIOSH (approved o,.ar rguiva'lelilll a;rnd full protec!li\le gear.

NEiPc.A ,

ltfealth	Fl!am:mabirity	Instabifity	Ph'f:slcal hiimlrds.
2	:2	,0	N'!A

6. Accldental nlease measures

Personal Precautions IIJ6'13 .arsornal protective equipme:nl. E\falCUa a,pei'SO.nne'Ilto sale areas. Keap people .away from and upwind of i;;pill /le.a'k_Enrura Bldaqua a,ve:niila1i011. Remove a'llsouroe,s of·g• '.oo_ Ta'k!e pt:eeau!icmary measures agailil6t 6latic discharges..

EmlilmnmtmtaI Pirecaulio ns Should not ba r,afea6ad into lha 13i11Wf•Dt!IBMml. Do not Ous'h into surta.ce water ar sarnilany aawar 6'.J!'Slem. See Sac:liioo 1:2tor 81dd[1iornal ,acoog[CEdinfurma ioo.

Mathads fur C0t11:i!ilnmant anr:Ic,ean, Soak up wi!h ililarl.a'bsollbant ma alia'L l<iaep in suili3bfe,d□sad cOllill.ainet:s(□ti **dt sal Up** R,amove **all** soorcas o.f nilioo. IIJ6'13 :spad;.-pr,oofto□ls and explas iorn-pro□(eql!!jpmant.

7. Hand Ing and storage

Hanr:lfing IIJ6'13 o.nLy uooar a ,c::henmal fume □ocil_Do not brealha vapora or :spray mist Do rn□l.ga·n ,a)'BS, on skin, ar oo clothing. Wa pall':S!lllilal prolecliir.re 9'1ilUipma:nl. Do not i asl. Keap away from o pe.r,ffamas, hot sul'fBilles and rouroesofigwtibn_Usa ooly non-sparking llools. Ta'k!e pt:eeau!icmary measures agailil6t mtic dischar,ges..

Slora:ge K p ,oonlainars l!igh ly dosed in .a dry, ooo.'l and we11-\lanblaled pl'a,c,a. C-[Jff,os'ives araa. K p-BW13lf fi,am heal 8!'1ld soull'C8S of·gn[tioo,_

a. sure controls J personal protectlon

IEX!oo§ure GuJd11:llge!i

OomooMnl	ACGIIiI lil,V	OSHA PR	NJOSHIDIJH	M:eli'.Ico.OEl..ll'WAI
F"orm.al!lehythl	TWA: □.1 ppm STBL: □.3ppm	(Vacsted) _TWIli: 5AJl'.ll f\!aCB!ed Si'BL: 1 ppm (Va!:sled Celll i 5 ppm TWA. jjj_75 fflffi $TEL: 2 rimm	IIJl!.H:21!1AJl'.ll TWA. 6.1!!16 ppm Celli □.1 ppm	Celling 2 PJ!ffl Celli 3 rngXm>
M'i!lllll ,i!IOOIIOI	TWA.200ppm Slfil..: 2 AJfll S1,1n	(Va!:sred) TWA.200ppm TWA. 2,60 mgl)lll (V&C3ted) ST1B... 2 ppm (Vac:atedl STBL: 325,lll!J')n S TWA: 200 AJl'.ll TWA:2001	IIJL.lt 0000 ppm TWA: 200 ffJffi TWA: :!Bil l',l1G!'ln" Slllil.:25DPl!ffl Si1El..: 325 rng.m'	TWA: 2[]□PJlffi 1Wlli: 260 mg;'i'i'.i' SliEL25()ppm ST1EL .:UDnriJlm

AOGIH - A.!r.ie.!tcml•Cc.'ti'!!rem:e o/Gover.nme11,sl *ll'tdustl/sl* Hygler!is.fl!l
OSHA - O=ipaliMSI *safety sMJ* esl'IIIAamill.!!!tfaliM
f'IIDSH WUII': 'Nef/Mal l/lstitJMo *Ibr* Sfile'JY ih'ltlHi!lal'tll•lmrue.:\'.!1te.ly*De too'S tt) Ui'e ar* Hi!l.!1 It

Engtneartng **Maaii1nes.** U:s.e onLy 111nder a ,challlllim rume oood. EJliS-lllra, thal eyewash stali□:ns .and safety showers ara close o'tiha,wod;stali□n tCllC81ion, U'sa axplm,i□n-proof e1edrrce!lvalllllilalirngJlighling[aquipme:nl. &irura **Bldaqua** EI venlilB1iDlil. especially in cxmfined areas.

Perao:n.al l'"rotecti...: Equipment

Eye,Jface Piroteclion,	TIQhlly fitting sa(sly gaggles_FBCl8-E.'hie5ciL
Skin andl bady protection	Wear a;pprqprialEl pralsciiv,a gloves.sod clothing o p16V6nlslin e,xpasuire.
R'ei;;piraltny Protection	Fo'llow lhe OSf-lA resp:il.s otr re,guratoo:ns foum:lin CiFIR 1Q'10_13:4 or Emopesn 61aii!darn EN UQ. 11.Jss,iaNIOSHIMSHA or Euiropeaiil Standard BN -14g.sppr.cwscll'Elsp'iral.N-eio:posw,s'lim ila ,s,,s:>icesded.otr if-rrils ion or-olihsr symptoms iars,,s:,;pe1isricedl
HyQien,elMea:suras	Handle in acootrdanoe wiih good indl.l&irial hyg1ooe and safety practice.

9. Physlcal and chemlcal propedles

Phy:sical state	L.iqu[d
Appearance	Colorless
Od'ar	pting,enl
Od'ar Thrasttolc:l	ND informal:rion **i;wa.isbls**
p:H	ND informal:rion 8Vaiisbls
MeHi 1Palnh'Range•	iD •C / 32 "F
Bo'ilmg **Point/Range**	101 •C f 213sB "F
Fil.ash P-oint	50 --C J '122 "F
Evapo.r.nio:n Ra.ta	ND informal:rion .waiisbls
Filammabilily {so'.lic:l,gasl	Nol iapplica'bf,e
Filammabilily ar exp:lmiivlB llimits	
llll per	ND data av.ailsble
116.owsr	ND data av.ailsble
Vapor Pra:s'&Ul'El	ND informal:rian i;wa.isbls
Vapor **Deni;;ily**	> 1..0
Specific Gra\lity	D informal:rian EMl!isbls
Salu'billity	misc'ibfe
P:artiliian coefficient· n-ac.tanollwater	ND data availsble
Aulo g11ilio:n,'lJ'.smp,er.ablra•	ND informal:rion i;wa.isbls
DscompD!iition 1rell1J)l!r.ahiJl'El	ND informal:rion **.waiisbls**
Vi!iCIO(fiity	ND informal:rion **i;wa.isbls**

10. Stablll and reactlvl

Rsiicllive•Hazard	Nam,e lmown, ssecl oo- fbrmattoo iava.ilab'le
Stability	Slsble 1.mcler noona,loondruons_
Granditiom;;to **Avo'ld**	lliloompatibls,producls. E,;csss eal l<ise;p m¥a'.J!' fiorn opsn llamas, hot wrrsaas .soo souroes of ig11i!i,1mL
lnCDlilil**palilble Material!i**	Skoog oio:idiizill"lgageililts, S-llllJ!!I bsse,s, nill"ile,s,Acids, lsacyanates, Acid s;n'hydrililss, Mslsl!i, Acid dl1arides
HazaFc:lraus ll:r!\eicarnp,o5iliio.n lProd'ueh;.Hj!'drogen, Formaldehyde	
HazaFc:lraus lPraiyrneriz.ation	HBZBIJ'OOus polyme:riza ion 0085 not OCCIJJr_
HazaFc:IDuS l action:s.	Nam,e mde1narma'l p:rooes.:sill"lg_

11. Toxlcologlcal Information

Acute Till.xiiciiv

Proc:luct lnfo:nnation	
Ora1 LID5CJ,	Cs B!P".J!' 3. ATE = 51}- 300 lll@l',l<.g.
DsrmalLD!i0	Cs B!P".J!' 3. ATE= :200- 1000 mgllgi.

Vapcll" LC!!lQ Ca BIJOIY 3. A1E = 2 - 10 mg/L

CDlilllDonanl: Info:nnaii1:n1

CO"""OMnl	wooaral	L OOMm.al	ILC:SD In'lIB'taflon
water	.	NO'I.lllll!!lll	NCllli't
FOffl'iak!'el'lyde	501ilmg!k,g (Rfil)	LD50 :270 !1 (Ri!illtJll)	☐.518 mg'l!.. (Rat) 4 h
M\::llU(l sb:iliio1	C T.c::_ATE 60 rngl):g I..DS!i! ,. 1137 - 2769 lll!J'kg I Ra.1)	c r.c::_ATE 6D g I..051il 17111() 1lg (Ra!:t 1}	I:all:,._ AinE: D..6 mg','l.. ("' pou:r!S)o r, 0.5 mgl'L lml!l'ts-) l!..C51il 12B..2 {RB't.'14-h

'f IDlioc:ologil!:a/lly Synergistic No in1D1111'111ati,c:mB'o'Bil'ab[e

Prnduci5

Dalayed and Jfmmedf ahl effaom -"" IEi-Wll!!rl as...,o'hnillili:c rnl.S'h1u:La1i1dJong-1enneir.p»sum

rrital!!lon Ca.uses bl!ll"ns by a'll el!posl!llll rmrtes

Serntilfiz.ation No inlD1111'111ationB'o'Bil'abre

Can:ino,g!6nicity The tabfe barow ilildica as wllalheJ"each agency has lie.led :any-nQ18di'snl.:aEJ a caremJage:nc

CO"""Ont!nl	CAS-.rto	IARC	NTP	ACGIH	OSHA	Mexico
wa ter	7732-18.5	Not i!!;ll!llll	Not Iii!	Nollt9tedl	Noli ll9tet:I	Not listed
Fomiak! el:u1de	5IMIO.g J	Gram 1	Known	A1	X	A2
Methvl alcohol	67-56-1	Not listed	Not Iii!	No11t9tedl	Noli ll9tet:I	Not listed

IA : fln'le.m.!lfJloffitl *Ag,enc,y* ftl'Is' l!!\!IN:111o,:i, CiMCi!!l']

/.ljRC: tmtemsm:,n.ar*A y l'l:li* Re-.s:earcn oo csooei:
Grioop *1* - Caroi<lo e ffilmal'l!l
Grioop 2A - l"n::ri!labl'y !,) M.lmil'm:
Gi'ioop *2B* - *P,,:,Bsib.!y* CS/dno,goen.::-rOHr.unsm:

IIITP fimtal *Tarldl,y* f':l<Dgram')

N'TF': *filIMBI Tox.l::JJy*
-KflQIM'I
ReSS0.!tB'aiY All aled' -lRl!!SSOn&aill' Alll'lC.j!l.!lr.ed'ro lie .ill *HIJ.!TlS'Il*
C'srcfi1ogel'l

AICGJH (Aml!!Pil"ea.tl *ai* G'ow!mmer.ir.t.r il'lt:rlr!Ul'i.!1/
Hy9iiei!ti-.9m,l

A1 - HlHJ,,M Cerr:llJoge,i,
A2 - *Suspec,reaM.lmil'n* Cere.!!KJ9!!'i'1'
A3 - M.i!J78l Caroi<)
ACGIH.' {Amelte8ft CMfere.n.ie ofGove/ilh'Jli!l'lf.al' l!Kri:.lcmtBl' *Hyglel'llSfl?.}*

Mexico - Occupational Exposure Limits - Carcinogens

- *Ooor.lpBl'l'lli'mJ'cE.l',l)<>&l/fe* LlmiT'll - *eru-*
A C'iMtimie.:l *Hl.lltmn* Cere.!!KJ9-
A2 - ffl.l!rlelt Ce i>fl
A3- C'alltim!e.:l A.nml.!ll oger.i
A'fl - M:11*Cl9Bslli'Bt\le* Bil a *HUffi-Br.JC*'s .11
A5 - 1'/rJ! Su.!;f!]eded as a, Hr.lmsn *Csmlllogen*

MIlJl:agenic Effac.m Muiagenic el'feciJ; hB'o'Eloccul!Tl3d in ooman.s_

R!eproducUva Effects Experimellts a..,e s'hOWfil l'Elprod.l!lCli'o'a lol!lioity effecl:s an la'bo!latolry Bl'limars..

Davelopmanl:a/1 Effects Da'o'alb,pman1Bl effacis have ocrunred-n a:i;periman!Jalaliimars.. ComponanrtaibslBJ1ce is listed on California Pilllp06iloon 65 **85** **a** developma:nlal hamrdl

'f arafuge-nicity **Teratoganic** effacts have occ:urrac:lin ei!!JlBrimenlal animafs_

S 1'0T - single exposure
S TOT - rapaatad lB:lpO!iUFe

Raspimalory system Cenlral nen,;ous s-yslallil (CNS) Opliic nerve
Kil ay Li'i'Br Heart **splaan Blood**

Asptraiio:n hazani No inlD1111'111ationB'o'Bil'abre

SJmptom,s *f* elfecls,blirlh acute and **dala JEid**

Symp oms of o:vera;icpo5111re *may* be headache, diuiness, iradness. nal!lSea :anc:l'o'[Hlj]iling: Proclllllet.is. a oorros'N"e material. Use o:f gae.'lric lavag eo ramesiis is oonlra- d[-ca eel. Pos.:sibla parlor alian of 6.1.omach or asoi:t,agus should be-,n..,asliigated: lnge6'1iancausas SBVE!re :5\!IBU'.irng, severa, damage a, the delicate 11i5:5u e Bl'ld danger o:f perfuration: Symptoms **of** a'llE!irQ'ic reaclion llilay include rash, **ilchililQ.** :5\!IBU Q\ ibroobfe braathing, tiirngling of lha h8illds :and faet,. diuine:ss liQhl:headedness, chest pa'in, **mu6de pain** or flushing

Emfocrine D'i:sruphn lnfulifililatlon No inlD1111'111ation B'o'Bil'ab[e

Other A.d e:rse IE:ffecis — T111m allliic effects hali'EI sen re;poried in ,a:>:pe!llimanta:Ianima3s . See arll.ua'I,alliliy in RTECS for mmpfete irnformaiiOliL

12. Ecolo9lcal Information

E ootoxicity

DD not Bliliipl.y n D,drains. lio:,;[c ilo a,qualre rnrganisllms, may ca.use long-term ad'i'arse effacls in lha Elll!!Ualic ,amrironment. The prodl!lcl.conta ins fo'llow.ing 61!lbslances whi'di ar,e hamrcillll!IS(or "i:he ,al!Wironment. Coola1ns a Sl!lbstanae wh[dh is:. T,o:,;ic ilo BC!!Ulltic otrgalllisms.

C:ClfflDOnenl	FN!:!lhlllllier Alall&	Flll!':!lhwalier F'l9!h	Microlm:	Waliel Fll!\ll
FOffllill Jdl!!	Not i!.1.e(l	le(Jti!aGLI:!l Idll:!l: LC;5(I 151 l'lllffil..!lBl'l	Notll9red	IEC50 2JJ mg.'l..!!Blii EC50 :2 maJ1I 4'Bn
M.elh. ,aloollol	Nol .e(l	P1 1Bh!!i-pr,::, IC50 > 100011 mg.!1!. ElBh	EC50 30000 mg;l..:25 min E C5lil 4000() mg;l.. 15 min IE.C50 4300 0ma.rt 5 min	EC50,. '1000!l m,g;l.. 241'l

Pers]s'.lance and Dagradabitlty — M1sclb'le wilh wa!ar Pero16.'lem::elll !!lllhl!ialy based on mfunnatioo awiable.

B.rwm:umu'lationi A-m::umulafion — ND information ,a'i'air.a'bfa.

MDbllity — . Wil likely be rndbife in ilha anvirolilmantdue to iis walarsdubiily.

Component	log Pow
Fffll'.IlBldtlll.VOO	J.35
Me:t/ll'l &10000!	0.741

13. DIspos considerations

Waste Dt""!)lli6al lMBitimd'ii — Chemical was.ta gan8lators ffllllllt clelarmine whell7ar a discallilacl chemical is d'as:sifiacil ilIII ha:m1doos wasle. Chemical waste generators m.11si.alsD,oonsult local, ragiana'l. and nlltiC111al hazardous waste ire:!lUtalions to e,nsura compla a,.and allC'1lra e ,clasEiif'icalion,

Component	RORA. II S ria!! W:!i!llie!i	RCRA - P Series Wastes
Formaldehyde - 50-00-0	U122	
Methyl alcohol - 67-56-1	U1541	

14. Transpod: Infonnatlon

llOil,

UNkN!o	IlJNl1198
Pr.ope:, Sh'ipping Name	FORMA.IDEl-lli'DE SOLUTIONS, FLA! MABIE
ttazard Clas'i;	3,
Subi;;id]ary Hil!liilrd Gl!ai;;S	B,
1Pac1dng Group	lll

1100

LJN!,1Nlo	IlJNl1198
Pro,per Shipping Name	FORMA.IDEl-lli'DE SOLUmo:Ni. Fll..AMMABLE
H'azard ClaS'&	3,
Subi;;idiary Hara.rd Gl!ass	B,
Pack[ng Group	Ill

UNbNlo	IlJNl1198
Pr,o,per Shipping Name	FORMA.IDEl-lli'DE SOLUTlo:Ni. FIL.AMMABLE
ttazard ClaS'&	3,
Subi;;idiary Hara.rd Gl!ai;;S	B,
Pack[ng Group	lll

IMIl.GI\IM.O

lilNbNlo	IlJNl1198
Proper Shipping Name	FORMA.IDEl-lli'DE SOOUllo:Ni. Fll..AMMABLE
[Hazard ClaS'&	3,
Subi;;idiary Hara.rd Gl!ai;;s	B,

Pac.kin]] Group III

15.. Regulatory Infonnatlon

All ,ofthe01m1ponani:s in lthe product.ara•,on the fdlhrwing lnve-nto:ry lists X = li:s sci

mntemational llll'Vantoriie1S.

Camnnne-nt	TSICA	IDSL	NDSL	EINECS	IE!LIN.CS.	NLP	PiJ:CCS,	EN CS	AIDS	IE:CSC	IK!E:CL
Wat<N-	X	X	-	231 781.2:1	-		X	-	X	X	X
Fonna'h:letwde	X	X	-	2□1MI(]U!,	-		X	X	X	X	X
Methvll aloohal	X	X	-	2□1Mi6!Mi-1	-		X	X	X	X	X

JL.egen
X • U!IUn!I
E: • lneli.ca!es.a sllh!lt!l1tce ll'lal is ilhe •!lub],ecl •of a Sestlon 5i[ej Co.n!l!l!llt order uruler Tl!:t:.A..
i;, - INllWfl!la !!Ubi!llllilIO&(11,111: li!ilJ'il! !llbIji!!Clc. -ra Si!!Clicn 5[i) Rlll& undl!r TSiC.A_
l!il • lnl!fi !l apaJymerie •!llb!l'tl!OOl! co1tt!lt ingi no fN!e.r\!Hlica.11rut111tc r,ln i r111,1en!oiy n11111i!Jllll.t r!l conside'Jl!!d lO cover,m,ee1e, !llgn !!!d
[Polyrni!!r,maeli!J!!i'ilh any lt'11s-radica.l ln:lti11toer gardles!l •or ilhe amount U!lrl!d.
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S . lnCILca!es.a !11.lb!lt!lru::e lJ'ial is ielenllnellllI'll a P,ICJ:.O!l!!d M llftlll .sJgll'l all'l: ll!ill!l/i! U!le Rlll&
T - lnl!fi !la!IUMIJ!inQIll;inat li!ill'ie !llblje-ct er a Si!!CliO.o 4 ll!!lt t!!l unl!f.er Tl!:e.A_
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"1'1• lMleatrl!!l an Ul!mp't polym 1Ul.!llla!! 8JlYlll'll1l!l!l' \lf!l':!lge molJ!!lCUTar Wl!-ifl'll oif 1JOOO OT' i!!Blf!r,_
y:2:• f'nrllleatre!l an uemp't polymi!!r llla11l a polyle!!li!!r a11nd ls m!Mle,•onl)! •from rea11ctanl!l inciud!e!!!ln a •!!Jli!!Cffii!d ll!lt ai' low •oo noem re<a.c ant'S 1fhat rOOrn;pl'l'll !!ol ne m1fht!! li!Jl-iflbill'l)' cl\l!el'la ror 1fhi!l exremplloo lll'la.

u.s. Ewe@I Ragufilio□'.$

T5CA1.2(b) Nol.!'aica'bfe

SARA:1113

C'ompo:nent	C'"-5,l!ilo,	We(ghl',-.	SARA_ :113 • Thlli!!:!ih,dld \l'.SIUi!':9.'/.
FormaMB'hydia	5□-00,:0	37 4:lil	0.1
IMelh'J!'l !a'lcdhol	87./56.1	15	Ul

SARA 31113112 Hazard C:al:e,gori'es See s.ec1i!JliJ :2 foc mo:ra infonnalio.n

CW.A _: Lean Water Ad

Component	CWA • tfM.Bl'lIICU!I Sulli!ll nc.es	CWA • IUlP,Oiffilb'.li!l a. n1itiii!!:!.	CW:A. • To!i\lCl'"Clllulanl!l	CWA - Pl'lorfty l'"0'.11 :tl!lnl!!l
Fonrnakla El		100 11'.J		

GIlBan A!lr Ad:

Co:mmonent	If.M'S DIIUI	0J11!1:!1.:1 ozo ne l1i!!lll&Mt	018:!l!l 2 Cito .lll! Df!i'.ilri.lOM
FonrnaJdalllVOB	X		
Macnwl iillaoool	X		

OSHA Oercupa iOlilBl Safety allldHearh - i:slra iDtll

Component	Specifically Regulated Chemicals	Highly Hazardous Che
HH1lTlaldetryl[jja,	2AJinST El. D..SJ!lllnlA.cUonLl!'lll!l □.75 TWA.	TQ: 1000 lb

GERCLA llii:smate• ..a:s6Uppliad, ,con ailils c,rn eotr ma«1 subslanaas r aQllila aclas a hazardiou:s aib:s anoe w,der he Ccmprehanst\le Emi'irlJtlill1rl!ln.lal Ra:spanse Compernsa-ian Bilild Liabilily Act (OEROL:AI (4D CRR 302}

C:ompo:nent	liilMl!!rdloll!l SU'b!l'tam:e!l RQ!l	CERCLA EHS RQs

Fo.rmafde'hyde	1.(i)(i)ii	100
Malh:f! aloo'.hol	50!1□1	

California Proposition 65 This product coolains lha fal□wing prop□5ili□n 65 chemicals

Component		California Prop. 65	Prop 65 NSRL	Category
Formaldehyde		Carc. (Gaseous only)	40 µg/day	Carcinogen
Methyl alcohol	Bl.58-1	Developmental	-	1:1eve1 ts:l

U.S. State Right-ta-Know
Rao1111ati1ms

Comllanant	lfa aehusi!i!'t.>9d	N'.ew Je<.niey	1Penn!!i)'1Y11nla	lllinol.s	!!hod& r rand
Waler			X		
Fomialdeh'l"lile	X	X	X	X	X
Malhvl afcoh□l	X	X	X	X	X

U.S.. Depiilrihmmt **of 11ram;pmblion**

Reportable Quanlity (RQI: Y
□OT Malina **Polulant** **N**
□OT Sever.e Maline Polulant N

U.S.. Depi1.Tihnent **of** Home'land Sec111rnty
Thii; product OOJ1taini; lha following DH,S chemicaf,s.:

Ca n!!'nt	DHS Cihernicilil Facilit Anti-Terreliism Standard
FCllmafde'h de	11250 lo SM soluli□n

Other International Regulations

Me,JC!lco - Grade Madera ᴇɪ rii;lk Grade 2

1&. 0th• Information

PntJllilred By Ra!Jlllle □ti)' Alf.air:;
ThBIIIKI R'5her SciiE!illtiific
Ema'i: BMS□S,RA@l!he111KJfish1moom

Creation Dale 08-Fe!J.-2!JIlO
Rev.ls'ilm IOale 11-J.an-20'18
Print IOate 11-J.an-20'18
Rev.is'ian Summary Thii; document has been updated to oomply wilh lhe US OSHA. Ha O□m .201.2 Slaooarn replacing lhe CUJ.ent lagi6lali□n II!del 29 ORR '1910:1200 to a'ligrn with lhe Globally Ham10,ni2led Syslem ofCf.aE1Silicalian and La'beaing of Ohamicals (GHS).

D.tsclaimll'J'
11he iInformaliun provided in th'is Safety IOata.Sheet is OOffact to the best of aur-knowledge, information and belief *at* the date af its plllb!lication. The illlfo.rmatian gjv!!'n,is designed anly a:s a guidanoe,fur salfe handling, 1usa, prnceiising!, storage, tram;parlatlan, disposal and m1 e-ase and iii not to be•l!:ansider-ed a wannty ar-q;ua1ity speci-fication.11he informaliDn re!ate:s only 1D thepaoili& malarial deiif:g,iatad and ma.y not be valid fuUi11Ch mateliiilil 11sed in,C!ombim1tiion with,an,yotha.-maleriia[eso:r in any prneeses, unless specified In the ta-xt

End ofSDS

3.4.b. Formalin

SAFIE.TY DATA SHEET

Croai!lon Date• 12-May--.2011 | Ravlsllill Dat 13-A:pr-2018 | Ravlsloll Number 1

1. dentHlcat:lon

Plioduot.Nlame — **formalin, Bu·ffered,** 110% **(!Phosphate Buffer/Cel1ilied),**

Cat No.: — **SIF'II00-4, SF100•201, SIF100-2i00**

Synonyms — No information available

Recommended Use• — laboratory chemicals.
Uses .a l\sed agai[IIst — **Food,** d'rug, pesticide •or biocida.1produd use

Pata! ts of 1hp $LIPPIfer of tIJP•safpty data s/bHt

Compan.y
Fisher Scienlifie
One Reaf!!ent lane
Fair lawn, NJ 07410
TeJi (201) 796-7100

Emergency Telep'.ho.H Number
CHEMTREC\'®, Inside the USA: 800-424-9300
CHEMTREC\'®, Outside lhe USA: 001-703-527-3887

2. Hazard(s) Identification

Classfil:car1io111L
This chemical is consiaerffl:Iha:zardot.risby the 2012 OSHA. Hazal\d Cmmnunieatlon Slandard 1(29·CFR HH0.1200}

Flammabl.eliquid's	Categony4
Sk!in Corros:ioniirrilalion	Calegony..2
Serious Eye Damage/Eye I:rritalio:n	Categony**1**
Ck!in Sensitization	Categony**1**
Germ Gell Muta.g icity	Categony.2
Carcinogenicity	Calegony**1A**
Specffi.c target a,;gan toxicity (single ei,;pos.u:re)	Categony**1**
Target Organs Res,p'iratory syst Central nervous system (CNS}.	

Label Ere:rnanlL

Sign al Woo.I
Danger

Hazard Stammom:s
Combustible liquia
Causes sk!in irrilalion
May cause an anergic skin reaction
Causes serious eye damage
Suspeetea of cal.JiSing genetic aefecis
May cause·caneer
Causes damage to organs

Precautionary Statements
Prevention
Obtain special instructions before use
Do not handle until all safety precautions have beenread andunderstood
Use personal protective equipment as required
Wash face. hands and any exposed skin thoroughly after handling
Contaminated work clothing should not be aUowed out of th.e workplace
Wear protective gloves
Do not breathe dusVfume/gas/mist/vapors/spray
Do not eat, drink or smokewtten using this product
Keep away from heat/sparksfopen flames/hot surfaces.• No smoking
Response
IF exposed: Call a POISON CENTER or doctor/physician
Skin
IF ON SKIN: Washwith plenty of soap and water
Take off contaminated clothing and washbefore reuse
If skin irritation or rash oocurs: Get medical advice/attention
Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Removecontact lenses, if present and easy to do. Continue rinsing
Immediately calla POISON CENTER or doctor/physician
Fire
In case of fire: Use CO2. dry cl\emical, or foam for extinction
Storage
Store locked up
Store in a well-ventilated place. Keepcool
Disposal
Dispose of oontentsfcontaiMr to an approved waste disposal plant
Hazards not otherwise classified (HNOC)
None identified
WARNING. Rep,odu<:tive Harm - https:I/Www.p65warnings.ca.govl.

3. Composition/Informationon Ingredients

Comoonent	CAS-No	Welaht%
Water	7732-1S-5	92-94
Formaldehvde	50-00-0	4.0
Methyl aloohol	67-56-1	1.0-2.0
Sodium Dhosnr.ate dibasic	7558-79-4	0.7
Phoc:nnoric acid. monosodium salt monohvdrate	10049-21-5	0.4

4. First-aid measures

General Advice — Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Eye Contact — Rinse immediately with plentyof water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Skin Contact — Washoff immediately with plenty of water for at least 15 minutes. Obtain medical attention.

Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth method if victim ingested or inhaled tile substal\Ce; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.
Ingestion	Do not induce vomiting. Cati a physician or Poison Control Center immediately.
Most Important symptoms and effects	May cause allergic skinreaction. Breathing difficulties.. Causes eyebums. Symptoms of allergic reaction may include rash. itching. swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain. muscle pain or flushing: Symptoms of overexposure may be tteadache, dizziness. tiredness. nausea andvomiting
Notes to Physician	Treat symptomatically

5. Fire-fighting m-••n

Suitable Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical or carbondioxide. Cooldosed CO!l(ainers exposed to fire withwater spray.
Unsuitable Extinguishing Media	No information available
Flash Point	81 •C / 177.8 °F
Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from theChemical
Combustible material. Riskof ignition. Containers may explode whenheated. Thermal decomposition canlead to release of irritating gasesand vapors. Keep product andempty container away from heatand sources of ignition.

Hazardous Combustion Products
Carbon monoxide (CO) Carbon dioxide (CO,)
Protective Equipment and Precautions for Firefighters
Asin any fire, wear sett-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health	Flammability	Instablllty	Physical hazards
2	2	0	N/A

6. Accldental release m-•ures

Personal Precautions	Use personal protective equipment. Evacuate personnel to safe areas. Remove all sources of ignition. Take precautionary measures against static discharges. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing.
Environmental Precautions	Should not be released into the environment. See Section 12 for additional ecological information.
Methods for Containment and Clean Up	Remove au sources of ignition. Soak up withinert absorbent material. Keepin suitable, closed containers fordisposal.

7. Handllng and storage

Handling	Use onty under a chemical fume hood. Wear personal protectrve equipment. Do not get in eyes, on skin, or on clothing. Do not breathe vaporsor spray mist. Do not ingest. Keep away from open flames, hot surfaces and sources of ignition.

Storage — Keep containers tighdy closed in adry, cool andwell-ventilated place. Keep away from heat and sources of ignition.

8. Exposure controls / personal protection

ExoosumGu¹dAH09:S

Comoonent	ACGIHTLV	OSHA PEL	NIOSHIOLH	Mexico OEL HWA\
Formaldehyde	TWA:0.1 ppm STEL: 0.3 ppm	(Vacated) TWA:. 3 ppm (Vacated) STEL: 10 ppm (Vacated) Ceiling: S ppm TWA: 0.75 ppm STEL: 2 nnm	IOLH: 20ppm TWA: 0.016 ppm Ceiling: 0.1ppm	Ceiling: 2ppm Ceiling: 3 mg/m'
Methyl alcohol	TWA:. 200 ppm STEL: 250 ppm Skin	(Vacated) TWA: 200 ppm (Vacated) TWA:. 260 mg/m' (Vacated) STEL: 250 ppm (Vacated) STEL: 325 mg/m1 Skin TWA:200ppm TWA: 260nidms	IOLH: 6000 ppm TWA:200ppm TWA:. 260 mg/m' STEL: 250 ppm STEL: 325 mg/m'	TWA:200ppm TWA:260mg/m' STEL: 250ppm STEL: 310 mglm'

ACGIH • American*Conference of Govemmental Industrial HygieMts*
OSHA • *Occupational Safety and Health Admffltration*
NIOSH /DIH: *TheNational Institute for Occupational Safety and Health Immediately Dangerous to Lifeor Health*

Engineering Measures — Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas.Ensure that eyewash stations and safety showers are close to tile workstation location.

P9CS0DIIProtectlvA eoulPmAnt

Eye/face Protection — Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's *eye* and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin andbody protection — Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection — Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures — Handle in accordance with goodindustrial hygiene and safetypractice.

9. Physlcal .. d chemlcal propertl-

Physical State	liquid
Appearance	Clear
Odor	pungent
Odor Threshold	No information available
pH	6.9- 7.1
Metting Point/Range	o·c132•F
BollingPoint/Range	93.9 • 100 •c *I* 201 • 212 •F
Flash Point	81 •C I 177.8 •F
Evaporation Rate	> 1.0
Flammability (solid,gas)	Not applicable
Flammability or explosive llmits	
Upper	No data available
Lower	No data available

Vapor Pressure	No information available
Vapor Density	1.0
Specific Gravity	1.10
Solubility	miscible
Partition coefflckmt; n.octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	No information available

10. Stablllty and reactivity

Reactive Hazard	None known, based on infonnation available
Stablllty	Stable under normal conditions.
Conditions to Avoid	Incompatible products. Excessheat Keep away from open flames, hot surfaces and sot.Wees of ignition.
Incompatible Materlals	Strong oxidizing agents
Hazardous Decomposition Products	Carbon monoxide (CO), Carbon dioxide (CO2)
Hazardous Polymerlzatlon	Hazardous potymerization doesnot occur.
Hazardous Reactions	None undernormal processing.

11. Toxlcologlcal Information

Acute Toxlclty

Product Information

Oral LOSO	Based on ATE data, the classification criteria arenot met. ATE> 2000 mg/kg.
Dermal LOSO	Based on ATE data, the classification criteria arenot met. ATE> 2000 mg/kg.
Vapor LCSO	Based on ATE data, ttte classification criteria arenot met. ATE > 20mg/l.

Comnonent Information

Com nent Water	LOSO Oral .	LOSO Dermal Not listed	LCSO Inhalation Not listed
Formaldehyde	500 mg/kg (Rat J	LOSO =270mg/kg (Rabbit J	0.578 mg/L (Rat) 4 h
Methyl alcohol	Cale. ATE 60 ml}l'kg LOSO> 1187 - 2769mg/kg (Rat)	Cale. ATE 60 mg/kg LOSO = 17100 mg/kg (Rabbit)	Cale. ATE 0.6 mg/l (vapours) or O.S mg/L (mi-sts) LCSO= 128.2 m.:.rt (Rat) 4 h
Sodi...-nphosphate dibasic	LDSO: 17 glkg (Ralf	Not listed	Not listed

Toxlcologlcally Synergistic Products: No 1nformat1on available

P&lfYAd and lmmtdlatA@ffacts as WAli ascbmolc AffActl fromShort and1009-tMmoxoolulo

Irritation	Severe eye irritant; Irritating to skin
Sensitization	Maycause sensitization by skin contact
Carcinogenicity	Ttte table below indicates wtteth.er each ageocyhaslisted anyingredtent asa carcinogen.

Comnonent	CAS-Ho	tARC	NTP	ACGIH	OSHA	Mexico
Water	n32.1s.s	Notlisted	Not listed	Not listed	Not listed	Not listed
Formaldeh MethlAaloohol	50-00-0 67-56-1	GrouD1 Not listed	Known Not listed	A1 Not listed	X Not listed	A2 Not listed
Sodium phosphate dibasic	7558-79-4	Not listed	Not listed	Not listed	Not listed	Not listed
Phosphocic aoo,	10049-21-5	Not listed	Not listed	Not listed	Not listed	Not listed

monosodil.l'1l sail, monohydrate

IARC: (International Agency for Research on Cancer)	*/ARC: (tntema.tional A!)ency for Research on Cance1'* *Group 1 - Carcinogenic to Human.s* *Group 2A - Probably Carcinogente to Human.s* *Group 28 - Possibly Carcinogenic to Human.s*
NTP: (National Toxicity Program)	*NTP: (National Toxic.ity Program)* *Knuwn - KnuwnCarcinogen* *Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen*
ACG/H: (American Conference of Governmental Industrial Hygienists)	*A1 - Known HumanCarcinogen* *A2 - Suspected HumanCarcinogen* *A3 . Animal Carcinogen* *ACGIH: (Amelie.anConference of Govemmental Industrial Hygjenists)*
Mexico - Occupational ExposureUmits - Carcinogens	*Mexico . Occupational Exposure Umits . Carcinogens* *A1 . ConfirmedHumanCarcinogen* *A2 . Suspected HumanCarcinogen* *A3 . Confirmed Animal Carcinogen* *A4 . Not Classifiable asa Human Carcinogen* *AS . Not Suspected as a Human Carcinogen*

Mutagenlc Effects	No information available
Reproductive Effects	No information available.
Developmental Effects	No information available.
Teratogenlclty	No information available.
STOT - single exposure	Respiratory system Central nervous system (CNS)
STOT - repeated exposure	None known
Aspiration hazard	No information available
Symptoms / effects,both acute and delayed	Symptoms of allergic reaction may include rash.itching. swelling, trouble breathing, tingling of the handsand feet dizziness, lighttleadedl\e:Ss, cl\estpain, muscle pain or flush.ing: Symptoms of overexposure may be headache, dizzil\e:Ss, tiredness. nausea and vomiting
Endocrine Disruptor Information	No information available
Other Adverse Effects	Tile toxioological properties have not been fully investigated.

12. Ecologlcal Information

Ecotoxlclty

The product contains following substal\Ces which are h.azardous for tile environment.

Com nent	Freshwater Aloae	Freshwater Fish	Microtox	Water Flea
Formaldehyde	Not listed	Leuc:iscus idus: LC50 =15 mnl'l 96h	Not listed	ECSO= 20 mg/L 96h ECS0 =2 m...,li 48h
Methyl alcohol	Not listed	Pimephales prcwnelas: LCSO > 10000mg/l 96h	ECSO=39000mg/l 25 flW'l ECSO= 40000mg/l IS flW'l ECSO=43000 mall 5 min	ECSO> 10000 mg/l 24h

Persistence and OegradabUlty	M1setble with water Pers1stel\Ce 1s unlikely based on mformaoon available.
Bloaccumulatlon/ Accumulation	No information available.
Mobllity	. Willlikely be mobile in tile environment due to its water solubility.

Com onent	lo Pow
Formaldeh e	.35
Meth l alcohol	.74

13. Dlsposal considerations

Waste Disposal Methods — Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Component	RCRA-U Series Wastes	RCRA - P Series Wastes
Formaldehyde - 50-00-0	U122	
Methanol - 67-56-1	U154	

14. Transport Information

DOT	Not regulated
TDG	Not regulated
IATA	Not regulated
IMDG/IMO	Not regulated

15. Regulatory Information

All of the components in the product are on the following Inventory lists: The product is classified and labeled according to EC directives or corresponding National laws. The product is classified and labeled in accordance with Directive 1999/45/EC. See Components SDS's. China (IECSC) = listed. Australia (AICS). USA (TSCA). Canada (DSL/NDSL). Europe (EINECS/ELINCS/NLP). Australia (AICS). Korea (ECL). China (IECSC). Japan (ENCS). Philippines (PICCS). Philippines (Chemical Inventory). Additional Regulatory Information contained in following SDS's.

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Water	X	X	-	231-791-2	-		X	-	X	X	X
Formaldehyde	X	X	-	200-001-8	-		X	X	X	X	X
Methyl alcohol	X	X	-	200-659-6	-		X	X	X	X	X
Sodium Phosphate dibasic	X	X	-	231-448-7	-		X	X	X	X	X
Phosphoric acid, monosodium salt, monohydrate	-	-	-		-		X	-	X	X	-

Legend:
X - Listed
E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.
F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
N - Indicates a polymeric substance containing no free radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
P - Indicates a commence<!PM.N substance
R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
S - Indicates a substance that is identified in a proposed or final Significant New Use Rule
T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.
XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(8).
Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

Component	CAS-No	Weight%	SARA 313 - Threshold Values%
Formaldehyde	50-00-0	4.0	0.1
Methyl alcohol	67-56-1	1.0 - 2.0	1.0

SARA 311/312 Hazard Categories — See section 2 for more information

CWA (Clean Water Act)

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutant&
Formaldehvde	X	1001b	.	
Sodium ohoc:nnate dibasic	X	5000 lb	-	-

Clean Air Act

Com-nent	HAPS Data	Class 1 Ozone Depleto,s	Class2 Ozone Depleton.
Formaldeh•..,e	X		.
Methvl alcohol	X		.

OSHA Occupational Safety and Health Administration

Comnnnent	s ificallY Regulated Chemicals	High(y Hazardous Chemicals
Formaldehyde	2 ppm STEL 0.5 ppm Action Level 0.75nnm TWA	TO: 1000 lb

CERCLA Th.is material, as supplied. contains one or more substaf\Cesregulated as a hazardous substance under the Comprehensive Environmental Response Compensation and liability Act (CERCLA) (40 CFR302)

Comnonent	Hazardous Substances RQs	CERCLA EHS RQs
Formaklehvde	1001b	100lb
Methvl alcohol	5000 lb	
Sodium Dhosonate dibasic	50001b	

Callfomla Proposition 65 Th.is product contains th.e fotlowmg propos1t1on 65 ch.em1cals

Com nent	CAS-No	Califomia Prop. 65	Prop65 NSRL	Category
Formaldehvue	50-00-0	Care. (Gaseous only)	40 1,Jg/day	Carcinogen
Mettwl alcohol	67-56-1	Developmental		Developmental

U.S. State Right-to-Know Reaulatlons

Com nent	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Water			X	.	.
Formaldehvne	X	X	X	X	X
Methvl alcohol	X	X	X	X	X
Sodium phosphate dibasic	X	X	X	.	.

U.S. Department of Transportation

Reportable Quantity (RO): Y
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security
This product contains th.e following OHS chemicals:

Com onent	OHS Chemical Facllit Antl-Tenrorlsm Standard
Formaldeh e	11250 lb STQ solution

OtherIntematlonal Regulations

Mexico - Grade Moderate risk.Grade 2

16.0therlnformadon

Prepared By Regulatory Affairs
Th.ermo Fish.er Scientific
Email:EMSOS.RA@thermofistler.com

Creation Date	12-May-2011
Revision Date	13-Apr-2018
Print Date	13-Apr-2018
Revision Summary	Th.is document has beenupdated to comply with th.e US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globalty Hannonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer

The Infonnatlon provided In this Safety Data Sheet Is correct to the bestof our knowledge, Information and belief at the date of Its publication. The Information given Is designed only as a guidance for safe handllng, use, processing, storage, transportation, disposal and release and Is not to be considered a warranty or quality specification. TheInformation relates only to the specific material designated and may not be valid for such matarlal usedIn combination with any other matarlals or In any process, unless specifiedIn the text

End of SOS

3.4.c. Carosafe

Safety Data Sheet

Carosafe®

CARIDLINA®
www.carolina.com

Section 1 Product Description

Product Name:	Carosafe®
Recommended Use:	Science education applications
Synonyms:	None
Distributor:	Carolina Biological Supply Company 2700 York Road, Burlington, NC 27215 1-800-227-1150
Chemical Information:	800-227-1150 (8am-5pm (ET) M-F)
Chemtrec:	800-424-9300 (Transportation Spill Response 24 hours)

Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

WARNING

Harmful if swallowed.

GHS Classification:
Acute Toxicity - Oral Category **4**

Other Safety Precautions:
May cause eye irritation.
May cause gastrointestinal discomfort.
May cause irritation to respiratory tract.
May cause irritation to skin.

Section 3 Composition/ Information on Ingredients

Chemical Name		%...
Water	7732-18-5	89
Propylene Glycol	57-55-6	10.01
2-Amino-2-Ethyl-1,3-Propanediol	115-70-8	0.66
2-Phenoxyethanol	122-99-6	0.33

Section 4 First Aid Measures

Emergency and First Aid Procedures

Inhalation:	In case of accident by inhalation: remove casualty to fresh air and keep at rest.
Eyes:	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Skin Contact:	After contact with skin, wash immediately with plenty of water.
Ingestion:	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Section 5 Firefighting Procedures

Extinguishing Madia:	Use dry chemical. CO2 or appropriate foam
Fire Fighting Methods and Protection:	Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Fire and/or Explosion Hazards:	Fire or excessive heat may produce hazardous decomposition products.
Hazardous Combustion Products:	Carbon oxides, Nitrogen oxides

Safety Data Sheet

Section 6 Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill. Ventilate the contaminated area. Isolate area. Keep unnecessary personnel away.
Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Contain the discharged material. Use an inert absorbent such as sand or vermiculite. Place in properly labeled closed container. Do not flush spill to drain.

Section 7 Handling and Storage

Handling: Wash thoroughly after handling. Do no eat, drink or smoke when using this product. Avoid contact with skin and eyes. Avoid contact with clothing. Keep container tightly closed in a cool, well-ventilated place. Avoid creating and inhaling spray or mist.

Storage: Suitable for any general chemical storage.
Keep container tightly closed in a cool, well-ventilated place.
Material is hygroscopic (absorbs moisture).

Storage Code: Green - general chemical storage

Section 8 Protection Information

	ACGIH		OSHA PEL	
Chemical Name	UWA)_	.(SIEL.)_	UWA)_	.(SIEL.)_
Propylene Glycol	N/A	N/A	N/A	N/A
2-Amino-2-Ethyl-1,3-Propanediol	N/A	N/A	N/A	N/A
2-Phenoxyethanol	N/A	N/A	N/A	N/A

Control Parameters

Engineering Measures: No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use.

Personal Protective Equipment (PPE): Lab coat, apron, eye wash, safety shower.

Respiratory Protection: No respiratory protection required under normal conditions of use.

Eye Protection: Wear appropriate eye protection when handling this product.

Skin Protection: Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Gloves: Natural rubber, Neoprene, PVC or equivalent.

Section 9 Physical Data

Formula: See Section 3
Molecular Weight: N/A
Appearance: Colorless Liquid
Odor: Mild Sweet
Odor Threshold: No data available
pH: No data available
Melting Point: -60 C
Boiling Point: 100 C
Flash Point: 99 C
Flammable Limits in Air: (Propylene Glycol) LEL: 2.6% UEL 12.6%

Vapor Pressure: N/A
Evaporation Rate (BuAc=1): N/A
Vapor Density (Air-1): NIA
Specific Gravity: >1
Solubility in Water: Soluble
Log Pow (calculated): 1.13 at 25 °C
Autoignition Temperature: No data available
Decomposition Temperature: No data available
Viscosity: No data available
Percent Volatile by Volume: NIA

Section 1O Reactivity Data

Reactivity: No data available
Chemical Stability: Stable under normal conditions.

Conditions to Avoid: Sparks, open flame, other ignition sources, and elevated temperatures.
Incompatible Materials: Caustics (bases), Metals, Strong oxidizing agents
Hazardous Decomposition Products: Nitrogen oxides, Carbon oxides
Hazardous Polymerization: Will not occur

Section 11 Toxicity Data

Routes of Entry Inhalation, ingestion, eye or skin contact.
Symptoms (Acute): N/A
Delayed Effects: No data available

Acute Toxicity:

Chemical Name	CAS Number	Oral LOSO	Dermal LOSO	Inhalation LCSO
Water	7732-18-5	Oral LD50 Rat 90000 mg/kg		
Propylene Glycol	57-55-6	Oral LD50 Dog 22000 mg/kg	Dermal LD50 Rabbit 20800 mg/kg	
2-Amino-2-Ethyl-1,3-Propanediol	115-70-8			
2-Phenoxyethanol	122-99-6	Oral LD50 Rat 1260 mg/kg Oral LD50 Mouse 933 mg/kg	Dermal LD50 Rat 14422 mg/kg Dermal LD50 Rabbit 5 ml/kg	

Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
Propylene Glycol	57-55-6	Not listed	Not listed	Not listed
2-Amino-2-Ethyl-1,3-Propanediol	115-70-8	Not listed	Not listed	Not listed
2-Phenoxyethanol	122-99-6	Not listed	Not listed	Not listed

Chronic Effects:
Mutagenicity: No evidence of a mutagenic effect.
Teratogenicity: No evidence of a teratogenic effect (birth defect).
Sensitization: No evidence of a sensitization effect.
Reproductive: No evidence of negative reproductive effects.
Target Organ Effects:
Acute: See Section 2
Chronic: Not listed as a carcinogen by IARC, NTP or OSHA.

Section 12 Ecological Data

Overview: Slight ecological hazard. In high concentrations, this product may be dangerous to plants and/or wildlife. Keep out of waterways.
Mobility: No data
Persistence: Biodegradation, Dissolved into water
Bioaccumulation: No data
Degradability: No data
Other Adverse Effects: No data

Chemical Name	CAS Number	Eco Toxicity
Water	7732-18-5	No data available
Propylene Glycol	57-55-6	96 HR LC50 PIMEPHALES PROMELAS 710 MG/L 96 HR LC50 PIMEPHALES PROMELAS 51400 MG/L [STATIC] 96 HR LC50 ONCORHYNCHUS MYKISS 51600 MG/L [STATIC] 48 HR EC50 DAPHNIA MAGNA> 1000 MG/L [STATIC] 24 HR EC50 DAPHNIA MAGNA> 10000 MG/L 96 HR EC50 PSEUDOKIRCHNERIELLA SUBCAPITATA 19000 MG/L
2-Amino-2-Ethyl-1,3-Propanediol	115-70-8	Not available

2-Phenoxyethanol	122-99-6	96 HR LC50 PIMEPHALES PROMELAS 366 MG/L [STATIC] 48 HR EC50 DAPHNIA MAGNA> 500 MG/L 72 HR EC50 DESMODESMUS SUBSPICATUS > 500 MG/L

Section 13 Disposal Information

Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSO) to assure compliance.

Waste Disposal Code(s): Not Determined

Section 14 Transport Information

Ground - DOT Proper Shipping Name:
Not regulated for ground transport by US DOT.

Air - IATA Proper Shipping Name:
Not regulated for air transport by IATA.

Section 15 Regulatory Information

TSCA Status: All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
Propylene Glycol	57-55-6	No	No	No	No	No
2-Amino-2-Ethyl-1,3-Propanediol	115-70-8	No	No	No	No	No
2-Phenoxyethanol	122-99-6	No	No	No	No	No

California Prop 65: No California Proposition 65 ingredients

Section 16 Additional Information

Revised: 08/21/2018 **Replaces: 06/15/2018** **Printed: 08-25-2018**

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstract Service Number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOT	U.S. Department of Transportation
IARC	International Agency for Research on Cancer
N/A	Not Available
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
ppm	Parts per million
RCRA	Resource ConseNation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act
IDLH	Immediately dangerous to life and health

3.5. Independent Inspection of Facilities and student exposure to potential toxins

Preface: Faculty, staff, students, and visitors upon entering the FAMU depository of human specimen run the risk of injury or exposure to hazardous materials. To ensure that the health and safety of any and all participants in the space is properly maintained, SOAHS, their SOP, and the health of the faculty and students are evaluated and monitored. All environmental protection and safety procedures shall be checked and evaluated by independent entities that will return their evaluations to the SOAHS in order to inform whether or not the SOP is in fact meeting standards and to allow for better improvement of the SOP in situations where the standards are not being met.

3.5.a. Fire safety

Fire alarms, extinguishers, exits and allowable space for proper fire safety within the lab space and depository is monitored by the FAMU Environmental Health and Safety Department, phone number 850-599-3442. All violations that might place individuals at risk are to be immediately reported to the SOAHS and the University. Appropriate individuals responsible for maintaining the equipment or fire safety standards will be informed and proper actions will be taken to correct the problem.

3.5.b. Facility Security

Security doors, swipe card entrance device, and alarms are monitored and maintained. Any and all issues that might place individuals at risk are to be immediately reported to the main office of SOAHS by the faculty and staff and an applicable associate to the FAMU Police Department at phone number 850-599-3256.

3.5.c. Environmental Health and Safety

Safety Equipment

Eye wash stations, first aid kits, Biohazard Sharpe waste containers, and proper signage within the lab space and depository is monitored by the FAMU Environmental Health and Safety department, all violations that might place

individuals at risk are immediately reported to the SOAHS and the University. Appropriate individuals responsible for maintaining the equipment or fire safety standards will be informed and proper actions will be taken to correct the problem.

Personnel Formaldehyde Exposure

Individual Faculty or student formaldehyde exposure is monitored by the FAMU Environmental Health and Safety located in POMA division of Health Safety. Individuals may be required to wear a Formaldehyde ChromAir Badge (380007-10) to determine the parts per million to formaldehyde. Standard personnel exposure should meet OSHA requirement for formaldehyde. Results from measuring individual exposure will be reported to the SOAHS and the University in order to ensure that the SOP is appropriate. If any violations are detected that might place individuals at risk then SOAHS is immediately contacted so that any non-compliance items will be corrected.

3.5.c. i. Environmental Health and Safety Air Quality and Proper Ventilation Report

3.5.c. ii. Environmental Health and Personnel Formaldehyde Exposure Report

3.5.d. Anatomical Board Independent Inspection of Facilities and Verification of Specimen Inventory Information

Every facility which receives specimens from the Anatomical Board will be independently inspected by an Anatomical Board appointed representative from a different facility. This inspection will include verification of security measures, specimen storage, safety procedures, Pledge of Respect compliance and verification of the location of every specimen on the specimen inventory sheet for that facility. Such inspections will occur at FAMU depository for Human specimen and teaching lab once every three calendar years. The site visit inspection form is displayed below in the SOP and is also available at **http://anatbd.acb.med.ufl.edu/forms**

3.5.d. Site Inspection Form

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ANATOMICAL BOARD OF THE STATE OF FLORIDA

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Il11spection of Facilities Ho'l!lsi11g, and Invem tory of, Anatomical Specime11s Prnvided ily the A11momicall Board of Ole State of Florida

r1AME OF FACILITY: ____________________

DA TE OF INSPECTION: ____________________

r1AME OF IING'PECTOR: ____________________

AFFILIATION OF INSPECTOR: ____________________

(ii **INSPECTIIONIOF** FACILlilIES

a) IP EA.SE PROVIDE A BRIIEF EGCRIIPTIION OF THIS FACIILITY (include type of bl!lil'ding, number of doors, w,indows, wark .stations. flo□ring, AV e;quipmenl. It Ittere are vrindows, are ttiey adequalel GOVeredl?)

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b) .AIIR IFLOW

It is required U1at laborsrorie,sin which specillilens fixed vITTh formaldehyde are use,dbe inspecled annl!lBII by Eimriron:mentall eal!h and 5.sfefy p,ersannel (or equi!;'a'le;nt authority) to ensure adequate air ffow and levels of fo:rmak:tehycfi! not exceeding (l.75 µ,arts [Per million for an eiglrl-h□ur peri□d. in c□mpliance >\•ilh OHSA 1regulalion 1910.10 :Bes.

Repmt Al!ached □

(iii SECUIRITY

a} Which courses uiitize ttiese faciliiies?

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b} Wh.at fype of .se.curily is- place al'fhis facilify? (key card. code. video sun.re laooe?)

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c) Wtto manitors s.ectirity meSiSures 1ini place? Is Ille lis of lhose who nave access fo lhese facilities updated (vrit17· 30 days Df Ille end of eaoh course) and are security access proced'ures simila:rl:y updaled?

d} Wtlal records perlaining lo sect1 ify ere **kepi?** (e.g. a.re vi eo surve lance lapes 1,,:ept? II'so, for ho111long?)

e} Wtler,**e** are specimens **ooi in** UISe stored? **(differenl** roams., buildir,gs, **ur,der** refrigeratio:n?)

f) I-low are specimens no longer in use disposed of? (returned to Anatomical BDBrd, cr,emated)

(iii} SAfErY

a} Is there a c:o;py of he rules and regu'lati□ns 'lIihiDh muiSt be followed when wolting in the lab□ratory clearly visible **and** avai a!blle fair consultaiion lby all indi,\ilid'uals hand! ng human specimens?

YES ☐ INO

b} II is recommended lhat lhe fo □ ing safety malerials be available fo:rthose tl'8ndlin91 analomic:al specimencs pro¥iilfed 0/ Analo:mical 18oard at lhis facility:

Glo'ies ☐ Lab Goals☐

Eye proteclio ☐ Face masks

EyewaiSh ☐ First Aid Kiii ☐

Emergency filan for sliek injury

Securily *f* Emergency te phone ntJmbers clearly posted

(iv) RESPECT

a} PLE□DGE OF RESPECT FORMS

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b) Ale-Ille INo Visi!-c]rs Policy, 1110 photography of any l,jnd vmhoUJt permission from,Ille Arlatamical|Bosrdl andlno posJirig .af aniy 1inifor mation perfai i g to courses at"lh.is fsc:ilify uli izing specimeniSprov,icfed by 1Jhe .A!nafo:mical board on any social medis '1.rel'bally staled!al lhe beginning of eaclil o□uriSe o ered al this facility?

YES INO ☐

(v) ViE|RI|IFICATION OF SPE!CIME|N |INiVEN|ifOiRV

a) Individuals responcSible for s;peci ens al this facilit; are:

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b) Ttte inspeclo:r shi□uld attach a copy of Ille specimeniimrenlory for this facili y. verifying lh.'8tlhey have accounled for all specimens aru::I ihst ltte specimens are appropriately housed and sec:ured.

c) Pilease comment or list any conoerns you *may* have pertaining to ihe hiausing-□ruse o1ianatamicall SP'l:!cime s st lhis fac:il[ty.

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4. Review and updating Standard Operating Procedure

To ensure the health and safety of any and all participants in the FAMU Depository of Human Specimens and teaching lab, SOAHS continues to maintain and appropriately updated their SOP as new requirements, new techniques, new safety procedures, and/or new classes are added. These procedures, precautions, and potential new courses will be updated into the existing SOP as needed and the SOP will be reviewed by the SOAHS faculty once a year.

5. Succession Plan

The Anatomical Board requires that each facility receiving human specimens should submit the names and contact information of three staff members (one should be the Chair/Director or Head of Department/Division) who will be responsible for the appropriate handling, storage and security of the human specimens. This should ensure that, if one staff member leaves that facility, other personnel are already familiar with the location of all specimens, procedures in place for their use and can immediately assume responsibility for the said specimens. Thus to be in compliance the following individuals should be listed.

5.1. School of Allied Health – Division of Physical Therapy

5.1.a. Dr. Brown-Cross – SOAHS - Director of the Division of Physical Therapy

5.1.b. Dr. Sherif Gendy – SOAHS - Assistant Professor of the Division of Physical Therapy

5.2. School of Allied Health – Division of Occupational Therapy

5.2.a. Dr. Debora Olivera – SOAHS - Director of the Division of Occupational Therapy

5.2.b. Dr. Adrian T. McCollum – CST- Assistant Professor Department of Biological Sciences and Adjunct Professor for the Division of Occupational Therapy

5.3. Succession Plan Form

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6. Exemptions to Policies and Procedures

Any and all potential exemptions to the current policies and procedures must be first approved by FAMU Environmental Health and Safety, the Anatomical Board, and the School of Allied Health. Such exemptions once approved must then be incorporated into a revised SOP prior to the initiation or use of the exemption.

7. How Non-Compliance of Standard Operating Procedure is Handled

7.1. Standard Operating Procedures must be followed; no significant departures, outside of approved exceptions, from the Standard Operating Procedures are allowed.

7.2. Reporting Non-Compliance: The SOP is expected to be followed and maintained however when there is non-compliance this must be reported to the appropriate authority.

7.2.a Student non-compliance: student non-compliance either observed by faculty or other students must first be reported to or addressed by the faculty in charge.

7.2.b Faculty non-compliance: faculty non-compliance observed by other faculty, students, visitors, or staff must first be brought to the attention of the faculty member in charge and then reported to the appropriate administrative head in SOAHS. The non-compliance should be dealt as soon as it is possible.

7.2.c. Non-faculty/Staff non-compliance: non-faculty/staff non-compliance observed by faculty or other students must first be brought to the attention of the faculty member in charge and then reported to the appropriate administrative head in SOAHS. The non-compliance should be dealt with by the most suitable maintenance administration officer and taken care of as soon as it is possible to address the issue.

7.2.d. Visitor non-compliance: visitor non-compliance either observed by faculty, students, or non-faculty staff must first be reported to or addressed by the faculty interacting with said visitor(s) and then reported to the appropriate director and/or Supervisor of the Program within 24 hours of the occurrence.

7.2.e. Facility non-compliance: Facility non-compliance with the Standard Operating Procedure must be reported in writing to the director and/or Supervisor of the Program within 24 hours of the occurrence.

7.3. Anatomical Board reporting of non-compliance: the Anatomical Board will report any detected violations during inspection, during drop off or pick up of human specimen(s)

to the appropriate administration and the proper authorities if deemed necessary by a majority of the Board Membership.

GROSS ANATOMY LABORATORY POLICIES

The bodies available for dissection were donated by individuals who wanted their remains to be used for education and research. As a health care practitioner, you are *privileged* to have the opportunity to use this anatomical donation. The rules of the anatomy laboratory are based upon PATIENT PRIVACY, RESPECT, SECURITY, SAFETY, and MAINTENANCE. These rules will be observed in the laboratory **AT ALL TIMES**:

Respect

1. **The anatomical donors are to be treated with the utmost respect at all times**. Inappropriate or improper behavior and/or comments within and outside the laboratory is/are unacceptable.
2. The articulated skeletons, skulls and isolated bones are to be afforded the same respect as the cadavers.
3. **Do not remove the numbered tag from your cadaver.**
4. The cadavers are to be properly maintained. Any suspicion of mold or rot should be reported to the facility director immediately, since it can rapidly spread throughout the body and to other donors in the room. The plastic body bag should be closed after each dissection. **Take good care of your cadaver – it is the best teacher you have in this course.**
5. All cadaver waste tissues are to be properly disposed of. No other waste is to be disposed of in the cadaver waste bins (see below for the disposal of other waste).
6. Dissection tables should be kept clean and free of excessive tissue.
7. **The right of privacy and confidentiality due to all medical patients is extended to our anatomical donors at all times.**
8. Cadavers will be appropriately draped at all times. All regions not being studied should be draped. Entirely cover the cadaver when leaving it for any period of time.
9. Use of cameras, cell phones or other photographic or video equipment is not permitted in the laboratory at any time unless specifically authorized by the course administration.
10. Only students, faculty and other authorized UVA personnel are allowed in the gross anatomy lab. Under no circumstances may a student bring an unauthorized visitor into the lab. Permission to bring a visitor into the lab can be granted only by Drs. Gendy and McCollum and is restricted to healthcare professionals or individuals with an approved academic purpose.
11. **NOTHING leaves the lab without the permission of the facility administrator or the course director.**
12. Food and/or drinks are not allowed in the laboratory.

Security

1. Keep the doors of the laboratory closed **AT ALL TIMES**.
2. Do not share your bone box with anyone except your partners to prevent loss of bones.

Safety

The following safety procedures are in place to prevent injuries and limit exposure to chemicals:

1. Students must wear long pants and closed shoes whenever they are in the laboratory. Open-toed or perforated shoes (e.g., sandals), shorts and skirts are not to be worn in the anatomy lab. You will be asked to leave the laboratory if you are in violation of this dress code.
2. Students must wear a lab coat when in the lab. It is your responsibility to maintain your lab coat in a reasonably clean condition. The faculty will insist you wear your lab coat regardless of how dirty it is.
3. Gloves must be worn throughout the dissection period.
4. Eye protection must be worn whenever you are within five (5) feet of an open cadaver. Regular eyeglasses are sufficient eye protection. Students must wear safety goggles when using hammers, chisels, bone pliers and Stryker saws.
5. All used scalpel blades must be disposed of in the provided "sharps" containers. Never dispose of "sharps" in wastebaskets or garbage cans (see below for the disposal of other waste).
6. All injuries incurred in the gross anatomy laboratory, no matter how insignificant they may appear, must be reported immediately to an instructor. The instructor will administer first aid and determine whether the student should be directed to a facility for further treatment.
7. In case of an EMERGENCY, use the lab phone to call the police (9-911).
8. Students who are pregnant, or believe they may be pregnant, are responsible for discussing attendance in the gross anatomy lab with their physician.

Maintenance

1. The laboratory must be kept neat at all times and you are expected to clean your area after each day's dissection. This includes frequently emptying the bucket at the end of your table and wiping up any large spills from the floor. You are provided space for storing your atlases and dissection tools – please use it! Atlases and tools that are left on the counters will be placed in the lost and found box. Note that proper trash disposal is as follows:

    cadaver (tissue) waste – cadaver waste container
    gloves and cadaver-soaked paper towels, paper towels, paper, etc. – regular gray containers
    blades – red sharps disposal boxes located on counter tops

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I have read the rules and regulations of the gross anatomy laboratory and understand that any violation thereof is a breach of professional conduct.

_____
Printed Name

_____ 09/05/2023
Signature Date