

Subject: Use of Cadavers for Instructional Purposes

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1. Purpose

The use of cadavers provides a unique learning experience of the human body for students needing coursework dedicated to the dissection, preservation, restoration, and study of the human body as well as observation by students in science courses that are related to the study of the human body. As such, this policy establishes the procedures for the appropriate management and use of cadavers for instruction at Tidewater Community College.

2. Policy

Tidewater Community College adheres to the ethical treatment of cadavers for instructional purposes. The procurement, care and maintenance, use, and disposition of cadavers, handling hazardous chemicals and biohazardous waste, and training regarding those procedures shall be conducted safely and respectfully consistent with current TCC procedures and best practices in higher education and in compliance with applicable legal standards.

3. Responsibilities

3.1. The Vice President for Academic Affairs and Chief Academic Officer, in

3.2. consultation with the faculty, is responsible for developing and maintaining procedures that are consistent with this policy and have a strong pedagogical focus.

3.3. The faculty, laboratory managers and assistants, and academic deans are responsible for ensuring compliance with this policy and procedures.

4. Procedures

Current procedures on the Procurement of Cadavers, Care and Maintenance of Cadavers, Use of Cadavers, Staff Training and Responsibilities, Disposing of Cadavers, and Handling Hazardous Chemicals and Biohazardous Waste are published in The Faculty Handbook.

5. Definitions

Biohazardous, biomedical, or infectious waste – Any waste containing infectious materials or potentially infectious substances such as blood.

Contaminated sharps – Any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, and exposed ends of wires.

Material Safety Data Sheets (SDS) – Provides data regarding the properties of a particular substance. A requirement of the Department of Labor and OSHA under the Hazard Communication Standard, SDS must accompany a hazardous product.

6. References

Virginia Department of Health Office of the Chief Medical Examiner State Anatomical Program Cadaver Patient Embalming and Care Guidelines.

Code of Virginia - Title 54.1 Professions And Occupations - Chapter 28 Funeral Services, <https://law.lis.virginia.gov/vacode/title54.1/chapter28/>.

7. Review Periodicity and Responsibility

The Vice President for Academic Affairs and Chief Academic Officer shall review this policy at least annually on the anniversary of its approval and, if necessary, recommend revisions.

8. Effective Date and Approval

The revision of this policy is effective upon its approval by the College President on February 7, 2022.

Policy Approved:

Procedure Developed:

Dr. Marcia Conston
President

Dr. Michelle Woodhouse
Vice President for Academic Affairs
and Chief Academic Officer

9. Review and Revision History

The initial version of this policy was approved on August 25, 2011.

- Revision 1 updates position titles, changes MSDS to SDS, removes the procedures from the policy, and makes slight edits in purpose and policy language.

Revision 1 approved on February 7, 2022 by President Marcia Conston, Ph.D.

APPENDIX A
VIRGINIA DEPARTMENT OF HEALTH STATE ANATOMICAL PROGRAM
CADAVER PATIENT EMBALMING AND CARE GUIDELINES

Each cadaver patient is unique and as such, the embalming procedure utilized for each cadaver is different. Many variables come in to play when assessing the overall condition of the cadaver patient, and unfortunately some of these variables remain an unknown entity to us, i.e., medications used which may counteract the embalming chemical's ability to sufficiently firm all of the tissues.

Embalming does NOT stop the decomposition process; it merely slows down this process. Therefore, embalming does not guarantee the longevity of a cadaver patient; it is not guaranteed in a funeral home setting and is not guaranteed in the anatomical setting. The care you give to the cadaver within your lab will help to prolong your use of the cadaver. Having a cadaver patient last for any extended period of time (example - a year) is the exception, not the rule.

As you receive your cadaver patient you may notice one or all of the following:

- Multiple incision sites - carotid, femoral, brachial, etc.
- Purge or leakage of body fluids and chemicals from the nose, mouth, and incision sites, etc. This is due to the patient's organs and abdominal cavity not being aspirated.
- Fishy odor - this is from the use of neutralizer. Neutralizer is used when the cadaver patient has required an extensive amount of formaldehyde in the embalming process.
- Cadaver patient is either wrapped in a flannel cloth or the extremities of the patient are wrapped in towels - these articles have been treated with either phenol or formaldehyde to aide in the embalming of those areas. Simply remove and discard.
- Bag may contain a powdery substance or a blue fluid. This is embalming powder and Dodge Dis-Spray. Each of these products is designed to prohibit mold growth and is being tested by us.
- Phenol may have been injected hypodermically into the hands and feet. Phenol is a cauterizing agent. This may turn the subsequent tissue black or bleached out white.

Each cadaver patient's embalming has started with the following process:

- Initial flushing of vascular system using Dodge Metaflow 8oz per gallon x 2
- Embalming chemicals by Dodge (Metasyn Firming, Plasodopake 25 or Introfiant) 25-36 index, 16-32 oz per gallon. (2-6 gallons)
- Each cadaver rests for 24 hours and then is finished with up to 2 gallons of the Carolina Perfect Solution which contains phenol. Some cadavers may have an

- umbilical incision, where phenol was placed directly into the abdominal cavity. Please note that the organs are still intact without punctures.

More embalming chemical is injected as needed to either the cadaver as a whole or to various extremities. The cadaver patients are removed from our cooler monthly, evaluated and re-treated as necessary.

Recommended Cadaver Patient Care and Maintenance Guidelines

Research has shown that those labs which follow these care guidelines, have better results with their cadaver patients.

- 1) Upon receipt of cadaver patient, remove from plastic bag, dry off and spray down with your preferred disinfectant/ sanitizer. We recommend Dodge Dis-Spray which also contains a mold inhibitor.
- 2) Cadavers should be refrigerated. If refrigeration is not available, please lower and maintain the temperature of your lab to below 65 degrees. If your dissection tables are equipped with the immersion tank-this should be utilized and use your approved chemicals.
- 3) After each dissection lab, the cadaver should be sprayed with sanitizer and stored properly. Should the cadaver have any indication of molding, excise the affected tissue; sanitize the table and instrumentation used on the cadaver. Discard of any sheeting that may have been used to cover the cadaver.

Utilizing licensed embalmers as your lab technicians would be beneficial. They may need to do some low level embalming on the cadavers to help maintain their quality. Check with your local funeral home, they may be able to assist you with any touch up embalming as necessary.

APPENDIX B
RULES OF THE CADAVER LABORATORY

Tidewater Community College is committed to the ethical treatment of cadavers for instructional purposes.

1. Access to cadaver laboratory facilities will be restricted to students enrolled in appropriate courses and the faculty and staff involved in preparing and teaching those courses.
2. A signed Cadaver Laboratory Student Release Form is required to be in the laboratory.
3. No electronic devices are allowed in the laboratory unless specifically authorized by the campus provost.
4. Appropriate attire and use of laboratory tools as described in the laboratory packet provided by faculty are to be followed at all times.
5. Injuries and/or chemical spills are to be reported immediately to the lab manager or assistant, faculty, dean, or the campus provost.
6. Any identifying information about the cadaver will not be discussed or disclosed outside of the laboratory.
7. Cadavers will be appropriately draped at all times.
8. The cadaver laboratory is to remain locked at all times.

Any violation of the Rules of the Cadaver Laboratory may result in disciplinary action as described in the Student Handbook in effect for the current academic year.

APPENDIX C
CADAVER LABORATORY STUDENT RELEASE FORM

Indicate your agreement by initialing on the line next to each statement, print and sign your name at the bottom of this agreement and include the date.

_____ I have read, understand, and agree with the Rules of the Cadaver Laboratory.

_____ I understand that failure to comply with the Rules of the Cadaver Laboratory may result in disciplinary action as described in the Student Handbook.

Student (print name)

Student (signature)

Date

Completed forms will be maintained in division files.