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## 2

### **Medical Education Program**

In addition to teaching the usual biomedical sciences that prepare students for careers in preventive and curative healthcare, the medical school also trains students for work in adverse physiological and psychological environments. In this way, the School of Medicine's educational program is unique.

Because of the need for broadly trained uniformed services physicians, the School of Medicine offers a comprehensive curriculum. Designed to ensure clinical and academic rigor within the School, its teaching hospitals, and various military operational environments, the program includes core instruction in human biology. Although initial emphasis is on the basic sciences, clinical sciences are progressively integrated, beginning with patient care activities in the first year. This integration allows students to see not only the physical and biological factors affecting the human body but also the complex social factors affecting individuals.

Two concepts underscore the USUHS curriculum: that medicine exists to serve society and that physicians must be humanists.

### **Educational Goals**

The School of Medicine's four-year program, which culminates in the doctor of medicine degree, aims to transform students into competent and compassionate uniformed services physicians; create and foster an environment of learning and investigative curiosity; and provide a setting that supports the development of uniformed service medical professionalism.

The specific goals of the School's medical program are:

1. To teach the basic knowledge and skills physicians need, including:
  - Normal and abnormal human development, structure, and function
  - The natural history of disease
  - Appropriate diagnostic, therapeutic, preventive, and health maintenance methods and skills and knowledge of their limitations
  - Communication and learning resources skills
  - The mission of the military healthcare team and community social services
2. To develop the fundamental attitudes of a humanistic physician–scientist, including:
  - Respect and compassion for others
  - Intellectual honesty, including recognition of personal limitations
  - An appreciation of scholarship and research
  - An understanding of medicine's socioeconomic and ethical aspects
  - The realization that a health sciences career is a continuous learning experience
  - An understanding of the physician's role as a uniformed officer, including the requirement for personal physical fitness
  - An inner motivation for life-long learning

The School of Medicine offers more than just a sound, comprehensive medical education. The School's primary objective is to produce dedicated medical officers. Consequently, leadership, military training, and military medical programs are integral parts of the curriculum. Students are expected to master these aspects of their education.

## Curriculum

An overview of the curriculum is presented in Figure 1. A more detailed description of each year follows. Brief descriptions of courses and clerkships are contained in Appendix B.

### First Year

#### Professional Orientation Courses

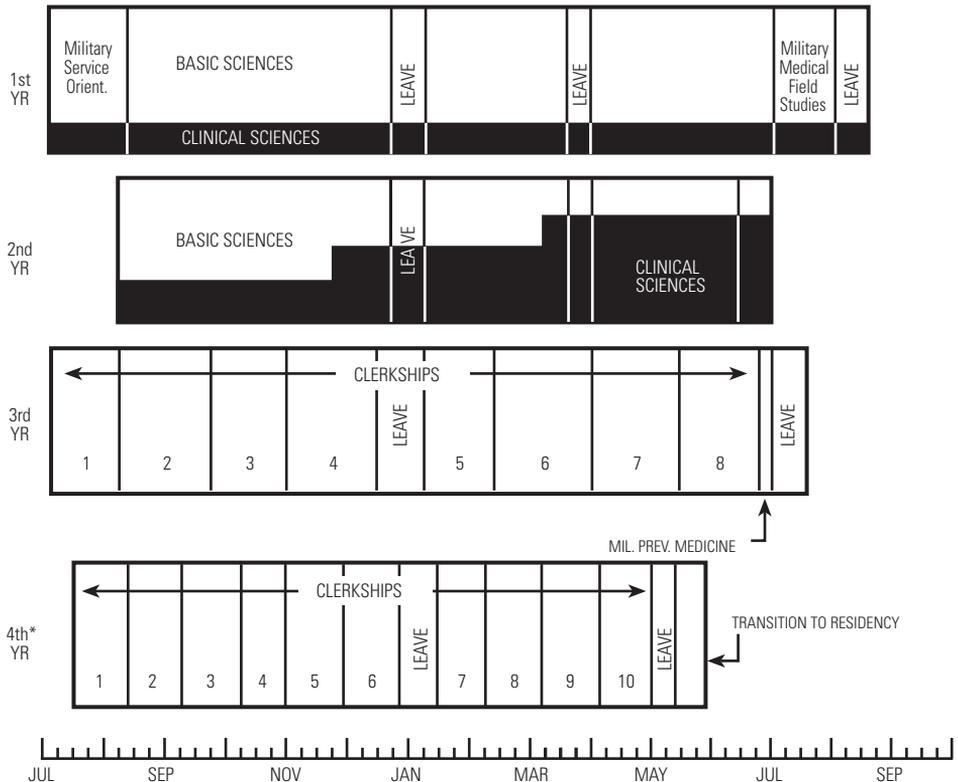
Before coming to the School of Medicine in August, freshman students are assigned to a four- to six-week service-specific orientation program. Orientation programs are conducted at the following locations:

- |            |   |
|------------|---|
| Army:      | U.S. Army Academy of the Health Sciences, Fort Sam Houston, Texas                               |
| Navy:      | Officer Indoctrination School, Naval Education and Training Center, Newport, Rhode Island       |
| Air Force: | Commissioned Officer Training Course, Maxwell Air Force Base, Gunter Annex, Montgomery, Alabama |

During these orientations, administrative records are initiated for students entering active duty. Students buy uniforms and are informed of their proper wear; learn basic information about their services; gain an understanding of one's responsibilities as an officer; and begin to develop an *esprit de corps*. Those students not accustomed to life in a uniformed service typically find that orientation is both educational and challenging while providing a smooth transition to the uniformed services.

Medical officer candidates with prior commissioned service may not be required to attend the Army Officer Basic Course (OBC), the Navy Officer Indoctrination School (OIS), or the Air Force Commissioned Officer Training (COT) course, as determined by each respective service. The army does require that students who are graduating from the United States Military Academy and ROTC programs attend the OBC in San Antonio. Those individuals who did not graduate from the AMEDD course are required to attend prior to matriculation. The navy and air force do not require service academy and ROTC graduates to attend the summer orientation program.

FIGURE 1  
An Overview of the Four-Year M.D. Program



\* MILITARY CONTINGENCY MEDICINE (4 WEEKS) AND MILITARY EMERGENCY MEDICINE (4 WEEKS) COMPRISE TWO OF THE TEN CLERKSHIPS.

Following the service-specific orientation, students report directly to the School of Medicine. Brigade orientation begins the second week of August. During this period, administrative requirements for registering students with the University and local military are completed. Academic orientation begins the third week of August. Students are encouraged to have finalized living arrangements by the start of academic orientation.

Upon completing orientation at the School of Medicine, students begin a 40-week academic program devoted to the basic biomedical sciences, the psychosocial aspects of health and disease, and an introduction to military medicine and patient care techniques. Each one-course credit involves approximately 22 hours of course contact.

### Summer Education

Military medicine is a unique occupational form of medicine. Hands-on experience is the best way to understand its occupational hazards. The University's Department of Military and Emergency Medicine directs a course called Military Medical Field Studies (MMFS) in the summer following the freshman year, at which time students complete a one-week field training exercise (FTX) called FTX Kerkesner, followed by a four-week operational assignment. The MMFS Course is required for graduation from USUHS and is graded pass/fail.



FTX Kerkesner is conducted at the U.S. Marine Corps base in Quantico, Virginia. It begins with two days of classroom instruction at USUHS, followed by deployment to Quantico for six days. While in the field, students function as soldiers, marines, airmen, and platoon/squad leaders. Students learn about nuclear, chemical, and biological warfare; night operations; camouflage; emergency medical care; patient management on the battlefield; and patient movement via litter, helicopter, armored vehicle, and ambulance. They are also challenged in leadership exercises. On the sixth deployment day, students “redeploy,” meaning they work together to pack up and move all equipment and vehicles back to the USUHS, where everything is cleaned and stored.

Following FTX Kerkesner, students spend four weeks with an operational unit in their parent service. The student is exposed to the real-world military environment, its medical hazards, and the occasional intensity of an operational exercise. This introduction allows each student to obtain a better understanding of the military work environment, its physical and psychological stresses, and the personnel for whom the student will be providing medical care. Students with extensive operational experience can elect alternative training by completing a project or course, for example, in research, clinical administration, or emergency medicine. The alternative should be designed to improve the student's understanding of military medicine.

After returning to the USUHS at the end of July, students are on leave until mid-August, when the second-year classes begin.

#### FIRST-YEAR CURRICULUM

<i>First-Year Courses*</i>	<i>Course Numbers</i>	<i>Credit Hours</i>
Biochemistry	BC01001	9
Clinical Head, Neck, and Functional Neuroscience	AT01022	11
Diagnostic Parasitology and Medical Zoology	PM01002	2
Fundamentals of Epidemiology and Biometrics	PM01001	3
Human Context in Health Care	FP01001	3
Introduction to Clinical Medicine I	ID01004	3
Introduction to Structure and Function	AT01020	10
Medical Psychology	MP01001	2
Military Studies and Medical History	MM01001	7
Military Medical Field Studies-Summer	MM01002	6
Structure and Function of Systems	AT01024	11

\*See Appendix B for course descriptions.

## Second Year

The second year involves 35 weeks of instruction in which courses continue to emphasize the basic sciences (pathology, pharmacology, and microbiology) as well as the psychosocial aspects of disease, patient care techniques, and military medicine. During the second year, emphasis is given to preparation for third-year clerkships by integrating the basic sciences with diagnosis of clinical problems and their management. Students have a three-week period for review before taking step one of the U.S. Medical Licensing Examination (USMLE).

## SECOND-YEAR CURRICULUM

<i>Second-Year Courses*</i>	<i>Course Numbers</i>	<i>Credit Hours</i>
Introduction to Clinical Reasoning	ID02001	7
Ethical, Legal, and Social Aspects of Medical Care	ID02102	2
Human Behavior	PS02001	4
Introduction to Clinical Medicine II	ID02103	3
Introduction to Clinical Medicine III	ID02111	6
Microbiology and Infectious Diseases	MC02001	10
Military Studies II	MM02002	2
Pathology	PA02001	12
Pharmacology	PH02101	9
Preventive Medicine	PM02001	3
Radiographic Interpretation	RD02001	1

\*See Appendix B for course descriptions.

### Third Year

In the third year, students engage in 48 weeks of required clinical clerkships in family practice, medicine, obstetrics and gynecology, pediatrics, psychiatry, and surgery. Leave periods are provided in December and late June.

## THIRD-YEAR CURRICULUM

<i>Third-Year Clerkships*</i>	<i>Course Numbers</i>	<i>Credit Hours</i>	<i>Duration</i>
Family Practice	FP03001	8	6 weeks
Medicine	MD03001	16	12 weeks
Obstetrics and Gynecology	OB03001	8	6 weeks
Pediatrics	PD03001	8	6 weeks
Psychiatry	PS03001	8	6 weeks
Surgery	SU03001	16	12 weeks

\*See Appendix B for clerkship descriptions.

### Fourth Year

Following one week of instruction in Military Preventive Medicine, students have 40 weeks of required clerkships and electives, including a required four weeks in both Military Contingency Medicine and Military Emergency Medicine. Leave periods are scheduled for late December and April. Students graduate in May. Step two of the USMLE is taken in the fourth year.

## FOURTH-YEAR CURRICULUM

<i>Fourth-Year Clerkships*</i>	<i>Course Numbers</i>	<i>Credit Hours</i>	<i>Duration</i>
Military Preventive Medicine	PM04001	1	1 week
Military Contingency Medicine	MM04001	6	4 weeks
Military Emergency Medicine	MM04002	6	4 weeks
Neurology	NE04001	6	4 weeks
Subinternships**		15	8 weeks
Medical Selective Block** (to be chosen from Internal Medicine, Pediatrics, Family Practice, Radiology, Dermatology, Preventive Medicine)			8 weeks
Surgical Selective Block** (to be chosen from General Surgery, Surgical Subspecialties, Anesthesiology, Obstetrics/Gynecology)			8 weeks
Behavioral Sciences Selective Block**			4 weeks
Elective Clerkships**			8 weeks

\* See Appendix B for clerkship descriptions.

\*\* A subinternship meets the medical, surgical, or behavioral sciences selective block requirement. Students may elect to take an eight-to-twelve week research experience in any approved basic or clinical science area. Selective/elective block clerkships receive five credits for each four-week experience.

## Academic Policies

### Examinations and Promotions

All courses given by the School of Medicine, including electives, are letter graded. Examination and evaluation methods vary among the departments. Most courses are graded A, B, C, D, or F, although a few are pass/fail. Academic performance is graded in both cognitive and noncognitive areas.

For each required course, written grading criteria are prepared by the responsible academic department, reviewed periodically by the School of Medicine's Curriculum Committee, and distributed to the students at the beginning of the course. The academic content of several of the basic science and clinical science courses includes participation in laboratories, which may involve the use of laboratory animals. These labs are mandatory. Failure to participate is sufficient grounds for course failure and result in review by the School of Medicine's Student Promotions Committee, which could lead to disenrollment. A departmental chairperson may exempt a student from fulfilling a course requirement based on proven expertise (testing out) or academic degrees (master's and/or doctoral).

A grade point average is computed for each student, but an official class standing list is not published. An annual Officer Efficiency Report (performance evaluation)

includes the student's class standing by thirds as well as his or her grade point average for the academic year. Academic competence in cognitive areas is not enough to satisfy USUHS academic requirements. Noncognitive areas such as officer bearing and attitude are essential aspects of academic performance evaluated during each curriculum year.

Academic progress is monitored by the Student Promotions Committee. Medical students must maintain satisfactory academic performance to be eligible for promotion to the next year, recommended for graduation, and approved for Graduate Medical Education (GME-1). Failure to complete coursework or to maintain an acceptable grade point average may cause the Student Promotions Committee to recommend remedial work or dismissal. The final decision to dismiss a student from the School of Medicine rests with the dean. Students have 46 months from the time of matriculation to fulfill all requirements for the M.D. degree. Inability to complete degree requirements on time is grounds for dismissal. An extension of time may be granted by the dean, but such exceptions are considered on an individual basis only.

## **United States Medical Licensing Examination (USMLE)**

Besides meeting the academic and personal requirements to graduate from the School of Medicine, students must take and pass step one, step two, and the Clinical Skills Examination (CSE) of the USMLE. All three parts of the examination are administered annually by the National Board of Medical Examiners (NBME). The USMLE replaced what was known as Parts I and II of the NBME Examination. Step one is usually given at the end of the sophomore year (May to June) and focuses on the basic sciences, namely anatomy, physiology, behavioral science, biochemistry, pathology, microbiology, and pharmacology. Step two is usually given at the beginning of the senior year (July to September), and covers internal medicine, surgery, obstetrics and gynecology, public health and preventive medicine, pediatrics, and psychiatry. The CSE, taken after step two, is usually given in October to December of the senior year and tests a student's clinical and communication skills in a one-on-one patient encounter in a clinical setting. Fees for all parts of the USMLE are paid by the School of Medicine.

These tests are used by the School, along with other tests, to determine cognitive mastery in a range of subject material. Performance on the USMLE appears on the student's individual official transcript as pass/fail. Since the faculty regards the ability to pass all components of the USMLE as evidence of minimal competence, students who fail step one, two, or the CSE portion will appear before the USUHS Student Promotions Committee.

## **Academic Integrity**

Academic integrity is the hallmark of every student and is part of academic performance. Students who violate academic integrity are subject to dismissal even though they are otherwise in good academic standing.

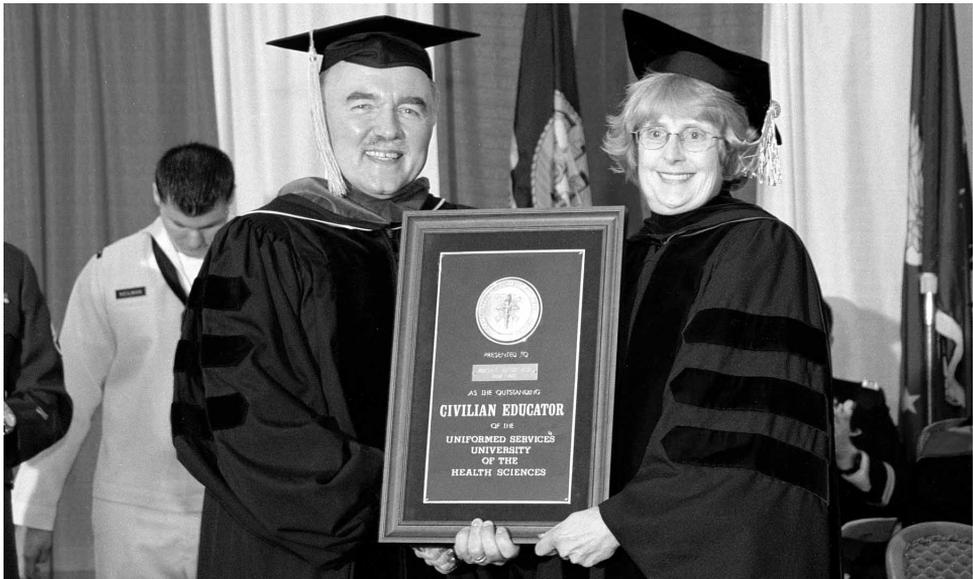
## Licensure Requirements

Policies of each of the uniformed services require that a medical officer hold a valid license to practice medicine in one of the 50 states, the District of Columbia, the Commonwealth of Puerto Rico, Guam, or the U.S. Virgin Islands.

## Graduation

Commencement exercises for the University are held on Armed Forces Day, the third Saturday in May, at the John F. Kennedy Center for the Performing Arts in Washington, D.C. Graduates receive the M.D. degree, are commissioned into the medical corps of their respective services, and receive a promotion from the O-1 to the O-3 officer rank (captain in the army or the air force; lieutenant in the navy or the public health service).

The University pays for rental of the graduating seniors' caps and gowns, their diplomas, and printed graduation invitations.



## Withdrawal from the School of Medicine

Students may withdraw from the School of Medicine by submitting a letter of resignation through the Associate Dean for Student Affairs to the dean, stating the reasons for withdrawal. Students who withdraw voluntarily or are dismissed from the School must perform military duty in an appropriate capacity, as determined by the secretary of the military service concerned, for a period equal to the period spent in training, but no less than one year. Unless law or service policy requires otherwise, the incurred service

obligation for students separated from the School is added to any other prior service commitment. Students who leave the program may be required to repay the government for the cost of their education.

## **Student Organizations**

### **Alpha Omega Alpha (AOA)**

AOA is the national honor medical society, recognizing and perpetuating excellence in the medical profession. The USUHS Gamma Chapter members are active in tutoring and assisting other students as they adjust to the rigors of medical school. Students are eligible for election to the society in the spring of their third year and fall of their fourth year. Criteria for election include overall academic achievement, contributions to the University and the community, and exemplary character and personal conduct.

### **Phi Delta Epsilon (PhiDE)**

Phi Delta Epsilon is an international professional fraternity for physicians and medical students. The USUHS Delta Alpha Chapter provides a vehicle for professional development, fosters relationships between students and other members of the medical community, and generates an environment wherein students may serve and grow.

### **American Medical Association—Medical Student Section (AMA—MSS)**

The USUHS chapter of AMA—MSS is an affiliate of the AMA and the Medical Chirurgical Society of Maryland. Its primary functions are to inform students of national issues concerning medical education, to provide students with an outlet for their opinions and ideas, and to aid in career planning.

### **Association of American Medical Colleges—Organization of Student Representatives (AAMC—OSR)**

The OSR is the student voice of the AAMC, an organization uniting U.S. and Canadian medical schools accredited by the Liaison Committee on Medical Education. The USUHS has two student representatives, but opportunities exist for other students to become involved within this national network advancing academic medicine.

### **Military Medical Student Association (MMSA)**

MMSA is a national organization of more than 1,200 members, consisting of students in military medicine at USUHS and in the Health Professions Scholarship Program throughout the country. As the headquarters for the organization, a primary function of MMSA at the USUHS is to publish *The Journal of the Military Medical Student Association* three times a year.

### **Association of Military Surgeons of the United States (AMSUS)**

The mission of AMSUS is to promote all areas of federal health care. USUHS students participate in the Baltimore-Washington student chapter, whose goals are to stimulate interest in and discussions of military medicine, to provide special opportunities for medical and military education, and to develop leadership.

### **Student National Medical Association (SNMA)**

SNMA is a forum that addresses problems associated with race relations and minority groups, with particular attention given to minority health issues. It also provides a support network for minority students in medicine and is actively involved in exploring ways to increase both minority admissions to and retention in medical school. Activities include lecture series, community-based programs, speaking to local high school students, and social gatherings. SNMA is an affiliate of the national organization based in Washington, D.C.

### **Women In Medicine (WIM)**

As the USUHS chapter of the American Medical Women's Association, WIM provides a support group for women in medicine and a forum for discussion of medical topics that affect women specifically and health care providers in general. WIM includes opportunities for service in the local community with emphasis on preventive health and mentoring.

### **Christian Medical and Dental Society (CMDS)**

CMDS is a national organization of Christian physicians, dentists, and medical and dental students. Its purpose is to motivate and equip doctors in the practice of their Christian faith, both personally and professionally. The USUHS Chapter provides opportunities for students, faculty, and staff to grow spiritually, develop Christian relationships, and serve the university community.

### **Student Government**

Each medical school class elects officers to manage class business and activities and to represent and advocate student interests in the USUHS community. Class elections are conducted on an annual basis. The Student Advisory Council is the student forum designed to study issues across class lines and provide a student body consensus, which may be communicated to responsible USUHS officials. A particularly important part of student government is the Academic Council in each class, which consists of approximately 12 students who gain exposure to every course and interact with every course director throughout the medical school. This system seeks to facilitate and augment communication and mutual understanding between faculty and students.



### Interest Groups

The USUHS offers a great variety of interest groups, many affiliated with national sponsoring organizations, which provide opportunities for learning about careers and foster interest in specific medical specialties by having students spend time with physicians in an office or hospital environment. Students often become involved in medically related service projects. Current interest groups include the Aerospace Medical Student Organization, Club Med–Internal Medicine Interest Group, Emergency Medicine Student Association, The Cutting Edge–Surgical Interest Group, Family Medicine Interest Group, Obstetrics/Gynecology Interest Group, Student Pediatric Society, and Undersea Medicine Interest Group.

### Students for AIDS Education (SFAE)

SFAE is dedicated to educating youngsters about the human immunodeficiency virus and AIDS. USUHS student volunteers visit middle schools and high schools in the local community to discuss the virus, how the infection is spread, methods of prevention, and attitudes toward people with AIDS. SFAE conducts a brief training program early in the academic year for prospective members.

### Student Spouses Club

The Student Spouses Club exists primarily to help spouses of medical students meet others in similar situations to their own and to form friendships that sustain them through the medical school years. The club offers many activities throughout the year, including monthly meetings and social activities for each class.

### ***The Gouge and the CADUSUHS***

The *Gouge*, the student newspaper focuses on the freshman and sophomore classes of the School of Medicine. It publishes information on current events, stimulates the exchange of ideas, and records the history of the institution from the student perspective. The *CADUSUHS* is the University's yearbook. Both publications are produced entirely by student volunteers.

### **The Dermatones**

The Dermatones, an *a cappella* men's and women's singing group, performs both barbershop and traditional choral arrangements. The group sings at numerous university functions throughout the year, including mess dinners, social occasions, and memorial services, and at special functions in the Washington, D.C., area.

## **University Religious Program**

The free exercise of religion is a constitutional right of United States citizens. The Office of the Chaplain facilitates the free exercise of religion for military personnel and their families. The University chaplain and staff extend a warm welcome to all students attending the F. Edward Hébert School of Medicine. Their goal is to support and enhance the quality of life for military personnel and their families through spiritual development. Chaplain ministry is needs based, performed cooperatively, and executed within a pluralistic environment. The chaplain and staff members help students by:

- Publicizing locations for places of worship—military chapel or civilian church, synagogue, or mosque
- Performing religious sacraments/ordinances, rites, and ceremonies
- Providing religious education and instruction
- Contributing pastoral care—visiting the hospitalized and confined
- Offering pastoral counseling—moral, ethical, religious, crisis, grief.

The University mission revolves around students, as does the design of the religious program at USUHS. Faith-specific student associations are formed as needs arise. Faculty and staff are encouraged to participate in the student association of their choice and to support/mentor students' spiritual formation in a similar manner as they foster academic excellence. Within regulations under the University president and the brigade commander, and administered by the Office of the Chaplain, the student associations are self-governed to meet the needs and interests of their constituents. Faith-specific groups at USUHS include the following:

- Protestant Student Association
- Catholic Student Association
- Latter-Day Saint Student Association

- Jewish Student Association
- Islamic Student Association.

Others can form as needed. Further information on these groups can be obtained by contacting the Office of the Chaplain.

Students do their best in medical school when they feel their best. If something distracts a student from his or her studies, the chaplain's office is a safe and caring place to seek aid counsel with plenty of potential resources , regardless of faith. The Office of the Chaplain is located near the student lounge, in Room C1090, tel.: (301) 295-9658/3193. To obtain more information or to email the chaplain for an appointment or with questions, visit the office's website under the "ADMIN DEPARTMENTS" link on the USUHS homepage at: [www.usuhs.mil](http://www.usuhs.mil).

## Academic and Leadership Awards

The University holds an annual *Academic Collegium*, where undergraduates from each of the first three years of medical school are honored for their scholastic achievements in courses and clerkships.

In addition, the following awards are made to graduating seniors.

### Board of Regents Award

The Board of Regents Award is the highest honor a graduating senior can receive. The recipient have demonstrated a combination of superior academic performance and clinical competence, commitment, and care, reflecting the highest level of duty and honor expected of a commissioned officer.



### **Society of Medical Consultants to the Armed Forces Award**

The Society of Medical Consultants to the Armed Forces Award recognizes the class valedictorian—the graduate who demonstrates the highest level of academic performance.

### **Association of Military Surgeons of the United States Award**

The Association of Military Surgeons of the United States Award is presented to the graduate who has best demonstrated the qualities of leadership and academic involvement. Consideration is also given to military motivation and bearing.

### **Surgeons General Awards**

The Surgeons General Awards are awards given to one graduate from each of the uniformed services whose contributions and role in the class have strongly identified him or her with the mission of that service. Each awardee has demonstrated a combination of academic achievement, medical professionalism, commitment to fellow students, and creative, sensitive leadership.

### **Ésprit de Corps Award**

The *Ésprit de Corps* Award, chosen by students of the graduating class, recognizes the individual in that class who by thought, word, and action demonstrates the humanistic qualities of compassion, caring, and concern for the well being of all.