



Republic of Serbia
Ministry of Defence

Military Medical Academy



The School for Advanced Studies MMA

**It's Time
for the Young and Ambitious**



Study Program 2010/2011

Along the paths of tradition, knowledge and challenges

From its very beginnings until 1960, when the Military Medical Academy got this name by the special Legal Act, it covered a long path of its development in times of peace and war. In wars, its members were major providers of medical support in mass catastrophe and natural disaster situations; they were always among the first to save human lives. In times of peace, it kept records of the acquired knowledge and experiences to preserve and bequeath

them to future generations; it opened its door to all the citizens who needed high quality medical care. The Military Medical Academy is today housed in the beautiful building on the Banjica Hill in Belgrade. There are more than 60 different technical-technological entities with 6000 rooms, all covering the area of 180 000 square meters.

The Military Medical Academy has 27 clinics and 17 institutes. Every year, those clinics, strongly supported by the institutes, admit around 30,000 patients for hospital treatment, performs about 20,000 surgical interventions, and more than half a million specialist examinations. The Hospital-Information System along with the functional and reliable Material-Technical System managed by top experts of various profiles provides strong support to the Academy. It has today more than 2500 employees; out of several hundreds of specialists, 178 hold PhD degrees and 83 have Master's degrees. Many of them have been conferred with academic and scientific titles. They are responsible for educational and scientific-research work



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designed by the chairs and the Teaching-Scientific Council and synchronously carried out at the Academy. There are, at any point of time, around 400 young specialists undergoing one of 36 hospital residency programs in all the fields of medicine, dentistry and pharmacy. There are also about 500 experts from healthcare facilities from Serbia and the countries in the region undergoing various forms of education and training. The Medical Officers School has a long tradition of training physicians, dentists and veterinarians during their obligated military service. Its mission is to provide sufficiently trained personnel capable of providing high quality medical support in mass catastrophe and disaster situations and in case of the defence of the country. The scientific-research work is carried out through 60 basic and applied research projects. Technical-technological capabilities provide the possibilities of working on projects in the fields of immunology, medical genetics and genetic engineering. Topics of those projects conducted with the participation of more than 500 experts from national scientific institutions, countries in the region



and Europe relate to the latest achievements in the world medical science. However, a considerable portion of work is done by military residents and their civilian counterparts on the basis of which they do their master's thesis and doctoral dissertations. Thus, tents of such thesis and dissertations are defended each year.

Through years, the Military Medical Academy has established and develops close cooperation with affiliated national and international scientific and research institutions. Every year, several tents of young physicians complete their advanced medical training abroad. It also hosts around 40 congresses, symposiums, seminars and other events every year.

Experts from the Military Medical Academy are the authors of numerous books and textbooks, thousands of scientific and research papers published in national and international medical scientific journals. Papers of the MMA experts are cited thousands times in the world literature. For more than 60 years, the Military Medical Academy has been editing the magazine "Vojnosanitetski preglad" indexed in the base of the world-known biomedical magazines. Medical Library of the Scientific Information Institute contains more than 30 000 volumes and journals, which are regularly renewed. It works closely with 25 libraries in Serbia and abroad. One of them is the Congressional Library in Washington D.C. The Military Medical Academy is open to all the citizens of the Republic of Serbia and foreign nationals as well. It operates within the framework of the Republic of Serbia Defence System as an integral part of the Ministry of Defence and the strategic brand of the country on its path towards international integrations. This is the place where the MMA Advanced School is housed.

Knowledge is a treasure casket

"I am very proud to stand here today in front of you, on behalf of all MMA professors, assistant professors and assistants. I feel proud for we have had teachers deserving recognition and respect; we have preserved the values of learning and knowledge as core preconditions for progress, our wealth is reflected in our capability to shape our future exploiting the most precious values of our precursors. However, it has not always been easy to do in the years behind us. We had very difficult moments; we had to fight for our survival. However, as people of continuity, we knew that there was one way out only, that is to do what we knew the best - not only to treat, but as teachers to teach the others, and to work as well on our own professional development what is very important for medical profession. The only way to survive we saw in our strong determination and commitment to making permanent improvements in medical profession and science, creating a pool of junior teachers and scientist which will maintain continuity as we do now. However, there is another, more important thing – the path ahead of us. We know where we are heading. The

path we have chosen is the path on which we should plant a new seed of knowledge every day. We should also teach the young that knowledge is a treasure casket and practical application of acquired knowledge is its key. We should make them realize that everyone who understands science properly is capable of better perceiving his/her own limits that the purpose of learning is not merely ac-



quiring knowledge but building self-confidence as well, that the secret of teaching lies in respecting those we teach. Those who know where they are heading to in life, can easily chose the path they would like to follow. Our path springs up from our determination to keep on improving and enlarging everything we have. To be abreast of modern medicine, be recognizable, actively involved in sharing knowledge and teaching experiences with the oth-



ers, all that with the aim of improving the quality of teaching and learning processes. Our intention is to offer our great personnel potentials for scientific-research purposes within the national and international cooperation framework. We want to be fully integrated into the Educational and Scientific System of the Republic of Serbia; and to be a part of cooperation processes at the international level in the interest of the Serbian science and Defence System to which we belong.

Thousands of those we have taught and trained as well as several thousand of those currently engaged in learning process speak in favor of the rightness of our objectives. They are also justified by the fact that there is a growing number of educational and scientific institutions from the whole world willing to establish cooperation with us. The path ahead of us is quite certain. Full of energy, with already designed plans and taken important decisions, we are heading in that direction.

Major General Prof. Dr. Miodrag Jevtić
The Head of the Military Medical Academy
The 500th Session of the Teaching-Scientific Council held on
October 30, 2008



Study program

Our students will have the opportunity to study in one of the most advanced and technologically equipped health-care facilities in the Balkans. Our intention is to engage them as soon as possible in the learning process. During 6 years of study, they will be able to learn from the latest international literature and use sophisticated computer technology. We expect them to be hardworking and determined to acquire new knowledge. At the same time, they would, judge us and all forms of teaching applying strong criteria and high standards. Their judgment would be the best and the most precious criteria for evaluating the quality of teaching we are ready to offer.

Based on our previous teaching experience, we are convinced that individual work and work in small groups is good but not the best precondition for acquiring high quality knowledge. Therefore, each year, only a small number of students would be enrolled in the study programs in accordance with the Defence System needs. We want our students feel comfortable in our institution, to study in a nice working atmosphere and surrounded by

“healthy competition”. Therefore, at the beginning of their first year, each student will be assigned an academic supervisor - a vocational mentor- to support, advice and guide his/her work until completion of his/her study. A mentor would advice him/he whenever he/she faces a problem, and, after any success he/she makes, encourage him/her to continue and do much more next time. Based on our knowledge and experiences, we will do our best to teach them how to deal with medical problems applying analytical methods, how to master diagnostic and therapeutic methods and to realize how important medical education is for prevention of almost all diseases. Our objective is to teach them communication skills as the best way of showing respect to the patients and other healthcare professionals as well.

We will open the doors of all our laboratories to those showing interest in the scientific-research work, and selfishly introduced them into all "secrets" of the scientific methods without which no new discoveries and achievements are possible. In addition to that, skills

needed for oral and written presentation of the results of medical and scientific work will be taught as well.

Our curriculum incorporates four parts. The first one comprises the basic medical studies. The second part includes 34 different elective and the same number of obligatory subjects, which are divided into three groups based on their nature: subjects in the field of science and methodology, then in the field of medicine and various specialties and, on general education. The third part of our curriculum covers the knowledge and skills in those fields of medicine only the Medical Services personnel have dealt with so far, but which are today being introduced into the scope of work of civilian doctors in the developing countries. It refers mostly to the management of casualties in natural disaster and mass catastrophe situations such as effects of chemical, biological and nuclear agents, which as a form of terrorism, are becoming more and more a global concern.

We expect you to join us on our path of tradition, knowledge and challenges.



Study Program

The School for Advanced Studies MMA

| | Subject name | S | SC | ЕСПБ | | |
|--------------------------------|--------------------------------------|------|----|--------------|---|-----------|
| The First Year of Study | | | | | | |
| 1 | Biology and Human Genetics | I | ✓ | 8 | | |
| 2 | Medical Chemistry | I | ✓ | 8 | | |
| 3 | The First Aid | I | ✓ | 4 | | |
| 4 | Anatomy | I+II | ✓ | 23 | | |
| 5 | Biophysics | II | ✓ | 6 | | |
| 6 | Introduction into Clinical Practice | II | ✓ | 5 | | |
| 7 | Physiology and History of Medicine | II | ⊙ | 3 | 6 | |
| 8 | Introduction into Medical Psychology | II | ⊙ | 3 | | |
| 9 | Medical Ethics | II | ⊙ | 3 | | |
| 10 | English Language I | II | ⊙ | 3 | | |
| | | | | Total | | 60 |

| The Second Year of Study | | | | | |
|---------------------------------|--|--------|---|--------------|-----------|
| 1 | Physiology | III+IV | ✓ | 19 | |
| 2 | Medical Biochemistry | III+IV | ✓ | 12 | |
| 3 | Histology and Embryology | III+IV | ✓ | 14 | |
| 4 | Medical Science Information Technology | III | ⊙ | 4 | 7 |
| 5 | Biostatistics | III | ⊙ | 4 | |
| 6 | Communication Skills I | III | ⊙ | 3 | |
| 7 | Physical Activity and Health | III | ⊙ | 3 | |
| 8 | History of Serbian Medical Services | IV | ⊙ | 2 | 5 |
| 9 | Public Health | IV | ⊙ | 3 | |
| 10 | Biomedical Instrumentations | IV | ⊙ | 3 | |
| 11 | English Language II | IV | ⊙ | 2 | |
| 12 | Vocational Practice - Health Care | IV | ✓ | 3 | |
| | | | | Total | 60 |

| The Third Year of Study | | | | | |
|--------------------------------|----------------------------------|------|---|--------------|---|
| 1 | Pathological Anatomy | V+VI | ✓ | 16 | |
| 2 | Pharmacology | V+VI | ✓ | 9 | |
| 3 | Medical Microbiology | V | ✓ | 6 | |
| 4 | Pathological Physiology | V | ✓ | 10 | |
| 5 | Epidemiology | V | ✓ | 4 | |
| 6 | Theoretical Basis of Immunology | VI | ✓ | 4 | |
| 7 | Clinical Propedeutics | VI | ✓ | 5 | |
| 8 | Adaptation to Extreme Conditions | VI | ⊙ | 3 | 6 |
| 9 | Nutrition and Health | VI | ⊙ | 3 | |
| 10 | Evidence-Based Medicine | VI | ⊙ | 3 | |
| 11 | Scientific Method | VI | ⊙ | 3 | |
| | | | | Total | |

S - Semester

SC – Subject Category: ✓ (obligatory) ⊙ (elective)

| | Subject name | S | SC | ЕСПБ | |
|---------------------------------|--|----------|----|--------------|-----------|
| The Fourth Year of Study | | | | | |
| 1 | Internal Medicine | VII+VIII | ✓ | 18 | |
| 2 | Nuclear Medicine | VII | ✓ | 4 | |
| 3 | Radiology | VII | ✓ | 5 | |
| 4 | Hygiene and Medical Ecology | VII | ✓ | 4 | |
| 5 | Infectious and Tropic diseases | VIII | ✓ | 9 | |
| 6 | Dermato-Venereology | VIII | ✓ | 5 | |
| 7 | Clinical Oncology | VII | ⊙ | 4 | 12 |
| 8 | Clinical Biochemistry | VII | ⊙ | 4 | |
| 9 | Neurosciences | VII | ⊙ | 4 | |
| 10 | Molecular Immunology | VII | ⊙ | 4 | |
| 11 | Communication Skills II | VII | ⊙ | 4 | |
| 12 | Clinical Toxicology | VII | ⊙ | 4 | |
| 13 | Vocational Practice- Internal Medicine | VIII | ✓ | 3 | |
| | | | | Total | 60 |

| The Fifth Year of Study | | | | | |
|--------------------------------|---|------|---|--------------|-----------|
| 1 | Surgery | IX+X | ✓ | 16 | |
| 2 | Gynecology and Obstetrics | IX+X | ✓ | 9 | |
| 3 | Neurology | IX | ✓ | 5 | |
| 4 | Occupational Medicine | IX | ✓ | 4 | |
| 5 | Psychiatry | X | ✓ | 5 | |
| 6 | Anesthesiology and Critical Care | X | ✓ | 4 | |
| 7 | Medicine Disaster | IX | ⊙ | 4 | 12 |
| 8 | Aviation Medicine | IX | ⊙ | 4 | |
| 9 | Transfusiology | IX | ⊙ | 4 | |
| 10 | Clinical Genetics | IX | ⊙ | 4 | |
| 11 | Clinical Pharmacology I | IX | ⊙ | 4 | |
| 12 | Immunological Basis of Transplantation – Transplantation Immunology | IX | ⊙ | 4 | |
| 13 | Vocational Practice-Surgery | X | ✓ | 3 | |
| 14 | Vocational Practice- Gynecology and Obstetrics | X | ✓ | 2 | |
| | | | | Total | 60 |

| The Sixth Year of Study | | | | | |
|--------------------------------|---|--------|---|--------------|-----------|
| 1 | Pediatrics | XI-XII | ✓ | 11 | |
| 2 | Ophthalmology | XI | ✓ | 6 | |
| 3 | Otorhinolaryngology and Maxillofacial Surgery | XI | ✓ | 7 | |
| 4 | Physical Medicine and Rehabilitation | XII | ✓ | 4 | |
| 5 | Emergency Medicine | XII | ✓ | 6 | |
| 6 | Forensic Medicine | XII | ✓ | 4 | |
| 7 | Phytotherapy | XI | ⊙ | 4 | 12 |
| 8 | Clinical Pharmacology II | XI | ⊙ | 4 | |
| 9 | Medical Services Organization | XI | ⊙ | 4 | |
| 10 | Mass Catastrophe Management | XI | ⊙ | 4 | |
| 11 | Psychotraumatology | XI | ⊙ | 4 | |
| 12 | Scientific Thought and Research | XI | ⊙ | 4 | |
| 13 | Final Examination /Paper | XII | ✓ | 10 | |
| | | | | Total | 60 |

S - Semester

SC – Subject Category: ✓ (obligatory) ⊙ (elective)

From the perspective of the acting dean,
Academician Col. Prof. Dr. Miodrag Čolić

Top Results of the First-Year Cadets

During the Academic Year 2009/2010, the First Class comprising of 20 cadets (10 males and 10 females) are successfully undergoing medical study programs at the MMA's School for Advanced Studies. Having followed the standard application, entrance examination and medical check-up procedures, the cadets enrolled at the MMA's Medical School upon Military Medical Academy had been granted a license to operate its School for Advanced Studies by the Republic of Serbia Department of Education. After successfully completed one-month military-medical training in the MMA's Center for Military Medical Services Organization and Tactics, participation in the parade dedicated to the promotion of the new class of lieutenants taking place on the ground in front of the National Assembly, and the solemn military oath taking ceremony, the cadets started with the school's curricular activities at the MMA's School for Advanced Studies on September 28, 2009.

Students of the First Class with the MMA's head Major-General Prof. Dr. Miodrag Jevtić, and the dean of the School for Advanced Studies, Academician Col. Miodrag Čolić



Formal Curriculum

These study programs are run in line with the accredited undergraduate medical curriculum comprising of 6 obligatory subjects (Anatomy, Biology and Human Genetics, Medical Chemistry, the Medical First Aid, Biophysics and pre-clinical training), and two out of four offered elective subjects (Philosophy and the History of Medicine, pre-clinical training in clinical Psychology, Medical Ethics and English Language).

The teaching process is advanced and based on the interactive work in small groups. Within the framework of an important phase of the teaching process, through seminars and exercises, the cadets are actively involved in preparation and presentation of particular topics. Practical training rooms are equipped with sophisticated devices for practical work (mock-ups to be used for the First Aid and Anatomy exercises, microscopes, centrifuges,



spectrophotometers, analytical scales, apparatuses for electrophoresis of proteins and nucleic acids, PCs and other tools). Biophysics and English classes take place in the premises of the Military Academy.

Each cadet is assigned a personal mentor (a teacher of the MMA's School for Advanced Studies), to supervise his/her work until the completion of his/her program of study and provide him/her with all necessary support in his/her work.



All in one place

The cadets's whole social life and work (accommodation, food, teaching process) are taking place at the Military Medical Academy, what gives them a great advantage as compared to other students. In addition to all other important facts including good secondary education qualifications, textbooks free-of charge, access to internet, great and hard work, high intrinsic motivation and constant support of teachers in mastering comprehensive and complex study programs are other incentives for cadets to show, almost at the beginning of their study, top results.

Excellent grades

All cadets timely take and successfully pass all their exams and written tests receiving excellent grades. After passing 3 subjects in January/February term, the cadets completed the first semester with the overall great point average of 8,91.



Safe future

It is a great advantage to be a cadet of the MMA's School for Advanced Studies. Through modern and advanced teaching process conducted in small learning groups, wide scope of elective subjects and involvement in scientific-research work, the cadets will earn Doctor of Medicine degree as soon as they complete their 6-year medical curriculum and will be capable to start practicing medicine as military physicians. They will not be concerned about their employment which is secured to them. Immediately upon completing internship at military garrison infirmaries, the best among them would earn the chance to apply for a residency and be trained and educated in international medical centers, to reach much further in their careers, and be capable of responding adequately to all the challenges facing military medical professionals. The vision of the MMA's School for Advanced Studies is



to train doctors of medicine up to the standards required for doctors practicing medicine in Europe and the world, and ensure they would be treated as equally as their colleagues in the country and the world are. We expect our School for Advanced Studies to grow into the National Defense University Medical School even in the course of this year, which, in addition to integrated medical study

programs, would offer attractive scientific-research PhD programs in molecular medicine, neuroscience, pharmacology and toxicology. In only few years, this institution of higher education would become a leader in medical education and training to the satisfaction of those who are educated here, their teachers and mentors.



Interviews with the First Class cadets of the MMA's School for Advanced Studies

Marko Jovanović

Initially I intended to apply to the Medical School, but then I saw the announced call for enrolment at the MMA's School for Advanced Studies. After little consideration, I have realized that this was a right call for me, since in addition to medicine I have always been fond of the Military. After one-month of military medical training and couple of months spent in this 'temple of health', my position about this School hasn't changed, it is now even better. For the time being, I am very satisfied, and there is nothing I would change. However, I must admit that medicine is not an easy accomplishment, but it does not pose any problem among the young and ambitious people.

Monika Macak

A call for enrolment at the MMA's School for Advanced Studies caught my attention for several reasons. Since, to study medicine was my wish, I realized how unique opportunity it

was for me to acquire knowledge other faculties do not offer to their students. I also liked the military aspect of that program, which would have an important role to play in strengthening of our character. We would also have a guaranteed job placement, what gives a sense of a certain security. In the beginning, it took me too much time to adapt to a new living and working conditions, since a new environment was quite unfamiliar to me. The curriculum is rather voluminous, more than I expected to be. However, if led by a clear goal coupled with good organizational and time management skills, everything may be done much easier.

Nikola Mihaldžić

I have enrolled at the the MMA's School for Advanced Studies because I think this is the place where I can prove myself, set the highest goals for myself, which may be easily accomplished through hard work and interactive process involving both professors who are top experts and ambitious stu-



dents. Living conditions are excellent as well as conditions for work, which has to be student's primary concern. Expectations are rightly justified. This is the right place every medical student might wish to come to, the one determined to be successful in his/her life, become a good person in the first place and make a good doctor.

Jelena Petrović

I have enrolled at the the MMA's School for Advanced

Studies because I am quite well aware of the fact that I would be given the opportunity to acquire great knowledge and skills, to have the honor to be taught by the most eminent and top experts in the field of medicine, to have a mentor who would work with me, encourage me in difficult moments and give me the strength to go on. However, the name Military Medical Academy speaks for itself!



Boris Malagurski

I got rid of all the problems I could've had at the civilian Medical School such as time wasted in between lectures, transportation, food and many other things that could've taken much of my time intended for learning; thus, I've got a chance to devote myself much more to learning. Very crucial to me is the possibility of going in for sport, that is the possibility of utilizing sports center including all its premises and equipment for all kinds of sport as well as the swimming-pool.

Ahmet Hadžiahmetagić

I have found the information on the MMA's School for Advanced Studies on the Internet. Having consulted my family members, I came to a conclusion that the MMA's School for Advanced Studies would offer me possibilities to obtain excellent education and certainty regarding my future career. I've been lucky enough and managed to enroll in this School.

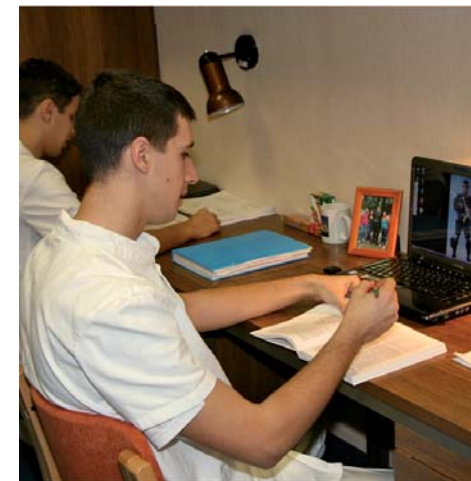


Emma Dimitrijević

When I was a little girl I used to joke with my grandpa telling him that I would be his physician when he got old. Unfortunately, my grandpa didn't live that long to see it, but I did enroll at the Medical School. The only difference is that in addition to becoming a physician I would be an officer too.

Đurica Mihajlović

I am a professional soldier of the Bosnia and Herzegovina Armed Forces, and I've made this choice due to my great interest in medicine. Now, as a cadet, I am really contented with conditions provided at the Medical and Boarding School as well as learning and teaching environment. We have perfect relations with our teachers.





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