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# Training for Medical education via innovative eTechnology

## MediTec

**The Hashemite University**  
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MediTec Project Number: 585980-EPP- 1-2017- 1-DE- CBHE-JP



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- ❖ Hashemite university was established in 1992 by a Royal decree as a coeducational institution committed to excellence in teaching and research.
- ❖ Area = 8519 donum (= 2105 Acres, donum = 1,000 m<sup>2</sup>).





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- ❖ The 1<sup>st</sup> Batch was in 1995 (~ 600 Students)
- ❖ Total number of students ≈ 25,000 (BSc, MSc, PhD)



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## Comprehensive University

- ❖ 3 Deanships
- ❖ 15 Faculties
  - ❖ Medicine
  - ❖ Engineering
  - ❖ IT
  - ❖ Economics
  - ❖ Arts
  - ❖ Sciences
  - ❖ Natural Resources
  - ❖ Pharmacy
  - ❖ Allied Health
  - ❖ Nursing
  - ❖ Tourism















- ❖ Childhood
- ❖ Educational Sciences
- ❖ Sports
- ❖ Arid Lands





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### QS Arab Region University Rankings

# RANK	UNIVERSITY	LOCATION	COMPARE	QS STARS™
2018 ▾	University search <input type="text"/>	Jordan <input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/> Rated only
9	 University of Jordan		<input type="checkbox"/>	4★ RATING
14	 Jordan University of Science & Technology		<input type="checkbox"/>	5★ RATING
29	 Yarmouk University		<input type="checkbox"/>	
46	 Princess Sumaya University for Technology		<input type="checkbox"/>	
48	 The Hashemite University		<input type="checkbox"/>	
61-70	 University of Petra		<input type="checkbox"/>	





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PROFESSIONAL JOBS SUMMITS RANKINGS STU

Rank	Name	No. of FTE Students	No. of students per staff	International Students	Female:Male Ratio
401-500	Jordan University of Science and Technology <a href="#">Jordan</a> <a href="#">Explore</a>	23,103	12.6	20%	57 : 43
801-1000	University of Jordan <a href="#">Jordan</a> <a href="#">Explore</a>	31,278	16.0	14%	65 : 35
1001+	Hashemite University <a href="#">Jordan</a> <a href="#">Explore</a>	24,958	25.7	4%	62 : 38

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### Rankings Search

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Country

City

Subject

Name

Showing 1-10 of 37 schools sorted by Overall Rank

#17	<b>Jordan University of Science &amp; Technology</b>  Jordan Irbid	<b>54</b> Overall Score
#19	<b>University of Jordan</b>  Jordan Amman	<b>53.4</b> Overall Score
#37	<b>Hashemite University</b>  Jordan Zarqa	<b>43.8</b> Overall Score
#53	<b>Yarmouk University</b>  Jordan Irbid	<b>36.4</b> Overall Score



*Study for a range  
of foundation,  
undergraduate  
and postgraduate  
programmes*



### Featured Advice



**Find the Right Arab Region University**

Arab students should assess the political situation in the country





- ❖ **TEJ:** Towards a university Enterprise alliance in Jordan
- ❖ **MUREE:** Modernising Undergraduate Renewable Energy Education: EU Experience for Jordan
- ❖ **eQTel:** Enhancing Quality of Technology-Enhanced Learning at Jordanian Universities
- ❖ **EQUAM:** Enhancing Quality Assurance Management in Jordanian universities
- ❖ **T-MEDA:** Tuning Middle East and North Africa:





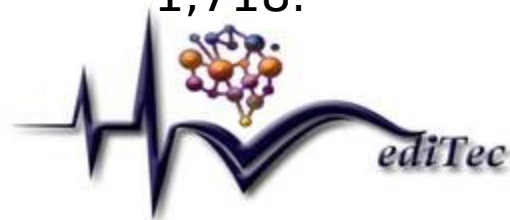
- ❖ **HiCure:** Development of Health Informatics integrated curricula in Computing and Health-oriented undergraduate degrees
- ❖ **NQFJ:** Towards a national Qualification Framework for Jordan
- ❖ **GEO4D:** Geodesy and geoinformatics for sustainable development in Jordan
- ❖ **JUST-CRS:** Establishment of an Interdisciplinary Clinical Master Program in Rehabilitation Sciences at JUST





## The Faculty of Medicine (FoM)

- ❖ The Faculty of Medicine at the Hashemite University was established in 2006.
- ❖ The Faculty admitted the first intake of 135 students in the academic year 2006/2007. The first group of 124 students graduated at the end of the academic year 2011/2012.
- ❖ It includes 5 departments in clinical and basic sciences
- ❖ It employs over 60 full time staff members, in addition to 105 part time lecturers and clinical tutors
- ❖ The number of students for the academic year 2016/2017 is 1,718.





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## Accreditation

- ❖ As of November 2011, FoM has its name listed in International Medical Education Directory (IMED) which is accountable for enlisting the recognized medical faculties by their appropriate government agencies in their home location.
- ❖ In January 2012, the faculty carried on with its mission to be enrolled in the Avicenna Directory which was maintained by the World Federation for Medical Education (WFME).





- ❖ Starting from June 2016 FoM students can sit for the Professional and Linguistic Assessments Board test (PLAB) test which is for doctors who have qualified overseas and wish to practice medicine in the UK under limited registration.
- ❖ In August 2015, the Medical Board of California granted the faculty its recognition allowing the students to be eligible to apply for California Postgraduate Training Authorized Letter (PTAL) or a physician's and Surgeon's' Certificate, and the Hashemite University Faculty of Medicine has been added by the Medical Board of California.
- ❖ In September 2016, the faculty has fulfilled the conditions of eligibility by American Medical Residency Certification Board (AMRCB) for a duration of 5 years which is the highest accreditation title that can be given to a medical school.



## Curriculum

- ❖ The teaching plan is clearly based on achieving a crosslink between both the theoretical and practical aspects of basic years teaching.
- ❖ In the early stage, the link is achieved by endorsing a teaching system based on modular studies of the human system; which are nine in number, built on a hybrid between theoretical lectures and practical training at Clinical Skills labs equipped with state of the art tools.
- ❖ Unique courses like Medical Economics, Health Policies and Decision Making. To add, training at Clinical Skills labs is an integral part of its first three years of curriculum.





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The second link is achieved via adding five clinical skills lab-based courses; each of which allows the student to practice special bedside skills related to the corresponding module, including history taking, physical examination, clinical procedures, and data interpretation on the mannequins available at Clinical Skills labs.



## **Clinical Skills Education and Testing Center (CSETC)**

# Clinical Skills Education and Testing Center (CSETC)



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- The CSETC is the most modern and comprehensive in the country . It delivers a first-class service to trainees and increases patient safety by using high fidelity simulation and manikins which accurately mimic human physiology, and state of the art medical technologies, to support the training, development and evaluation of health-care professionals.



## Clinical Skills Education and Testing Center (CSETC)



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## Lab 1 (Emergency Room):

It includes a full body high fidelity manikin that mimics all sorts of physiological and pathological body changes. The manikin reacts to medications and breathes in and out natural gases, like in real humans. The manikin also can be given DC shocks and is connected to a sophisticated simulation software that has built-in over than 90 medical and emergency scenarios, more custom tailored scenarios can be added to simulate desired scenarios.





# Clinical Skills Education and Testing Center (CSETC)



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The room is fitted with audio/video instruments and cameras to record the desired educational case or to assess trainees/students during an emergency or any other medical practice, which can be helpful while played back for re-assessment and quality assurance purposes. Trainers can observe and monitor the session behind one-side mirrored glass allowing more realistic and almost bias free level of education. A special room fitted with a TV is dedicated for the recorded session to be revised, and another room with a number of 14 chairs is located allowing students watch through a wide glass window how their colleagues interact in serious situations, which is important to encourage self critique and to provide feedback to others



# Clinical Skills Education and Testing Center (CSETC)



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## Lab 2 (virtual hospital):

A number of 25 clinics are distributed in 4 sections in this lab. All the clinics are like those in real life; they are equipped with chairs, couches, beds, curtains, desks and computers. The computers are linked to the internet with access to patients digital recording program, allowing trainees/students to accommodate with the digital era of health information systems. Additionally, each clinic is fitted with a camera and a two way audio system to communicate with the control room and to record each clinic individually on the servers..



# Clinical Skills Education and Testing Center (CSETC)



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here are 2 clinics dedicated for communication skills training, with one-side mirrored glass, allowing the trainer to give instructions and watch how the trainee interact with patients while breaking bad news and deal with angry or crying patients.



# Clinical Skills Education and Testing Center (CSETC)



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Each specialized clinic has its own storage place where the appropriate manikins are found, and are presented according to the case needed, including clinical procedures, surgical skills, baby delivery, ENT conditions, ophthalmology, skin conditions, and many more.

The lab is also equipped with smart boards for easy and quick interactions.



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On April 13<sup>th</sup> 2015, the Higher Council for Science and Technology overseeing the "Hassan Bin Talal Award for Scientific Excellence" presented the first prize to the Hashemite University for its leadership in medical education.



*Tec*

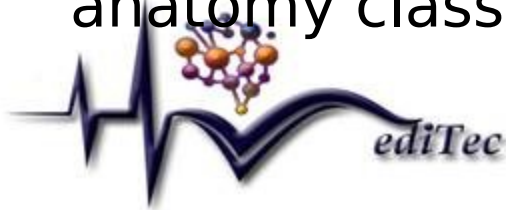


# Digital Anatomy Lab (DAL)



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- Due to the difficulties in finding cadavers for many ethical and cultural reasons. The faculty decided to acquire a digital anatomy table as a complementary educational material to the classic anatomy class.

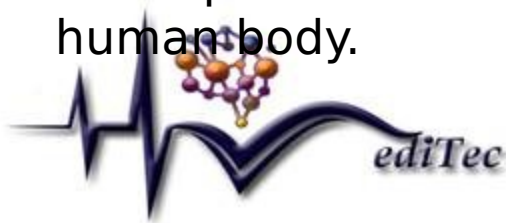


# Digital Anatomy Lab (DAL)



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- Since students need to mentally visualize 3D complex anatomy structures in space, which is usually hard to recall, the anatomy course at the Hashemite University has been carefully designed to be taught using a combination of: embalmed cadavers, plastinated models, medical imaging, plastic and computer-animated models to ensure students have a thorough understanding of the sophisticated 3D nature of human body.



# Digital Anatomy Lab (DAL)



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- In addition to its touch-interactive display system, the table comes pre-installed with 3D gross body male and female contents, 3D high res regional anatomy and 3D imaging software with anatomy viewing and modelling tools. The data comes from real patient scans and cadavers, making them accurate. This will ensure that medical students can align with day to day medical practices, where doctors interact with patients via medical imaging or surface anatomy.





# Digital Anatomy Lab (DAL)



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- The anatomy table is fitted inside a facility, which is customized with sound and visual systems, and equipped with 80 computers. Where students can learn through a digital 3D anatomy software (e.g. Visible Body, 3D4Medic) individually installed/accessed on their computers, and/or through the content delivered to big (9) TV screens by the instructor from a variety of learning tools:



- The anatomy table
- Digital microscope with digital high definition camera



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**Thanks**



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