

We recruited many teachers for the purpose of teaching in medical school and affiliated hospitals. We recommend all of the faculty to improve their teaching skills by attend teaching skill improvement symposium organized by TMU, affiliated hospitals and other facilities. On August 30, 2009, the Department of Internal Medicine has 34 full-time faculty, including 7 professors, 9 associate professors, 11 assistant professors, and 7 lecturers; 51 part-time faculty, including 9 professors, 7 associate professors, 7 assistant professors, and 28 lecturers; 48 part-time clinical faculty, 14 professors, 9 associate professors, 2 assistant professors, 23 lecturers.

Distinctive Features of Research

We recruited many local and overseas researchers for the purpose of delivering outstanding researches. We organize many research teams. These research teams published many excellent papers shown on <http://www.tmu.edu.tw/default.asp>

Prospect

We communicate with foreign medical universities and international societies for the purpose of internationalization. For the purpose of internationalization, we communicate with foreign medical universities, for examples, Juntendo University and Nihon University in Tokyo, Japan, Baylor College of Medicine, Houston, Texas, USA, and international societies, for example, International Society of Integrative Medicine in Tokyo, Japan since January 2008. The way of internationalization is exchange medical staff, co-organization of symposium and cooperative paper publications.

We establish new advancing teaching and feedback programs for medical students and post-graduate years. We develop the newly horizontal and longitudinal integrations among currently available basic and clinical integration teaching programs in 4th, 5th and 6th year and continue modification of the core and sub-core

clinical curriculum for 5th and 6th year medical students. Furthermore, we educate holistic health care concept, enhance communication abilities and notion of virtue ethics with OSCE and real case discussions. We also perform mini-CEX and DOPS for 6th, 7th year medical students and post graduate year doctors.

(Nen-Chung Chang, Director/Professor)

外科學科

簡史及概況

外科學是以一貫由淺入深的臨床醫學基礎，醫學系學生在進入臨床醫學領域之前皆須由相關臨床生理、病理讓學生了解外科的處置及併發症的處理，以期學生能全盤認識外科學，才能在臨床醫學各科方面有深入之發展。隨著各分科：一般外科、神經外科、整型外科、胸腔外科、心臟血管外科、小兒外科，各種專業知識發展而跟上未來趨勢變動，且是以基礎醫學角度去闡釋特定疾病之臨床表徵及結合基礎醫學之知識去探討治療疾病。

教學目標

本學科為兼顧研究、服務、教學三大任務之臨床科，並同時肩負培訓臨床專科人材之訓練，以及科際新知之發展。外科學分四、五、六年級上課，共授與(1)消化系統疾病：專注於消化系的外科疾病及治療，(2)神經系統疾病：由週邊神經至中樞神經系統疾病之介紹，(3)外科特論：涵蓋外科較尖端專門醫學之介紹，如心、肺、肝移植等，(4)胸腔外科學：涵蓋心臟胸腔外科，由先天性到後天性心臟胸腔疾病之診治，(5)臨床解剖學：針對不同器官以疾病治療為中心來介紹其解剖位置及相關構造，(6)外科臨床教學。七年級為分組至各醫院之外科臨床實習。

教學特色

外科學科授與之課程詳述如下：

消化系統疾病

課程內容：介紹消化器從食道至結直腸常見疾病的診斷方法，內外科治療及其可能的併發症。另外也包括先進的微創手術運用在各種消化器官的疾病治療和發展。課程介紹：由一校三院內外科的專家分別就其善長的領域以器官為中心彼此相互搭配來介紹疾病的發生率，致病原因，診斷及治療。其中也包括不同手術形態之選擇，各述其利弊，併發症之種類及其處置。教學方式：由各專科教師依不同消化器官分別授課。一般以四選一單選，或問答題進行學習考評。

神經系統疾病

課程內容：包括神經外科最常見的疾病及其治療。如：頭部外傷、脊髓外傷、腦瘤、腦血管疾病、先天性畸形、頸椎、腰椎退化性疾病、週邊神經病變及損傷、脊髓神經腫瘤及顱內感染等。較新的發展則包括立體定位手術、功能手術、癲癇手術及放射手術等。課程介紹：將神經外科學所有課程依基本觀念、必備知識、疾病診斷、治療與追蹤等有秩序的介紹給學生。並將最新觀念及未來展望作介紹。教學方式：演講。

外科特論

課程內容：心、肺、肝的移植手術及排斥。

外科手術治療門脈高血壓。顏面、手外科與重建。

外科病人之追加化療及放療方法與禁忌。運動傷害。病態性肥胖之治療。

實驗動物法。

課程介紹：涵蓋外科較尖端專門課程之介紹。讓學生了解外科領域最新的手術及治療方式，使學生由外科概論進階到外科次專科課程，尤其是最新的各種器官移植，介紹實驗研究方法論使學生以後能有從事動物實驗之能力。教學方式：由各科專門老師分別授課。採用幻燈片教學。

胸腔外科學

課程內容：各種胸腔手術前後之照顧。胸部外傷學。先天及後天心臟、瓣膜手術。外科治療心律不整。食道手術與重建。心臟及肺臟移植。課程設計：涵蓋胸腔及心臟，由術前照顧、各種外傷到胸腔良性、惡性腫瘤，先天、後天心臟病之治療，期使學生對胸腔內之各種疾病有一全盤之了解。教學方式：由各科專門老師分別授課。採用幻燈片教學。

臨床解剖學

課程內容：有別於大體解剖學以肉眼觀察人體各系統或局部區域之三度空間的詳細構造為教學的方法，強調疾病治療時臨床上的運用。希望能引起學生的興趣並讓學生能更進一步瞭解人體解剖學的重要性。課程介紹：由本校各臨床學科的主任級醫師為授課師資分別就其善長的器官以疾病治療為中心來介紹各器官的解剖位置及相關構造。其中也包括不同疾病產生的原因及手術時應該注意到的解剖學知識。教學方式：由各專科教師依不同器官分別授課。

外科臨床教學

依照「醫學系五、六年級實習醫學生外科學習護照」完成臨床核心課程，實習內容包括一般外科、大腸直腸外科、小兒外科、神經外科、整形外科、心臟血管外科、胸腔外科，藉由門診跟診、病房及開刀房見實習、EBM-PBL教學、核心課程教學、科內各項會議參與，學習外科基本概念，了解外科常見疾病、及加強病史、身體檢查之分析能力。

師資

外科學科至 2009 年 8 月止有專任教師 14 人，含教授 3 人、副教授 3 人、助理教授 4 人、講師 4 人；及聘請國內外科學專家 29 人為兼任教師，含教授 11 人、副教授 3 人、助理教授 4 人、講師 11 人；臨床教師共 44 人，含教授 7 人、副教授 7 人、助理教授 4 人、講師 26 人，共同負責外科基礎及臨床上之教學。

研究特色

配合醫學系各項政策，並以提升研究風氣、加強論文發表的質與量為主，鼓勵老師們多申請校內、外研究計畫，及參與各類國內、外學術研討會。各分科研究方向如下：

一般外科：常見的癌症包括大腸癌、肝癌、胃癌、乳癌等的臨床研究和分子生物、癌症訊息傳遞之基礎醫學研究，另外微創手術在肥胖治療、急性闌尾炎和腸胃道疾病的運用及研究。

神經外科：著重於腦外傷、腦腫瘤、腦中風、退化性神經疾病之基礎與臨床研究等。

整形外科：建制了外傷整形(如手外傷，顏面骨骨折等)、癌症重建、燒燙傷治療、先天缺陷重建、慢性傷口治療、美容手術共 6 大領域，手術的創新，服務的品質，人員的訓練，研究的開發一直持續進步中

心臟血管外科：結合基礎與臨床研究，領導國內心臟外科之轉譯醫學研究。

胸腔外科：涵蓋範圍包括肺、食道、肋膜、氣管、縱膈、橫膈以及胸壁等，首重肺癌、道癌及氣胸之治療研究。

小兒外科：全力發展腹腔鏡手術，達到傷口小，疼痛輕，恢復快的完美境界。

展望

整合臨床基礎教學計畫，由外科學教授介入解剖學科實習教學。從已開設臨床解剖學課程，學生得以整合基礎所學與臨床應用。整合臨床基礎合作研究，由外科聯合生理、病理、微免作臨床性的基礎研究。

(蔣永孝 主任/副教授)

Department of Surgery

History and Overview

The philosophy of surgery is a fundamental basis of clinic education, which will be taken by progressively forward approaches, from entry to

the most advanced. To let students have an overall picture on the philosophy of surgery to make further development in each department of clinical medicine, they all need to learn how to carry out surgical operations and how to treat complications by studying related Clinical Physiology and Clinicopathologic before entering the field of clinic education. Respectively in accordance with these departments, General Surgery, Neurosurgery, Plastic Surgery, Thoracic Surgery, Cardiovascular Surgery, Pediatric Surgery, all professional knowledge will be learnt and developed, abreast of the ever-changing future, to interpret clinical symptoms of special diseases in the aspect of fundamental medicine, and to integrate knowledge of fundamental medicine for an exploration of disease treatments.

Goal of Education

The course is to accomplish three main missions of the clinic department: research, service and teaching; meanwhile, to fulfill the duties of training professionals in clinic and developing new technologies. The credits of surgery will be studied within the fourth, fifth and sixth years, and they are: (1) Digestive Diseases: It stressed on the symptoms and treatments of digestive diseases, (2) Nerve System Diseases: It introduces the central and peripheral nerve system, (3) Special Topics on Surgery: It covers an introduction to the most advanced and professional medicine, such as heart, lung and liver transplant, (4) Thoracic Surgery: It covers the Cardio-thoracic Surgery, including diagnose and treatment of congenital and acquired Cardio-thoracic diseases, (5) Clinical Anatomy: It focuses on the development of treatments based on different organs to show you anatomical positions and related structures, (6) Teaching of Surgical Clinic: The seventh students will be divided to different departments for surgical clinic practice.

Distinctive Feature of Education

The curricula of the surgery are described as below:

Digestive Diseases

Curriculum Content: The digestive system from esophagus to colorectals, the diagnoses of the common diseases, surgical and medical treatments and possible complications are introduced. In addition, the advanced Minimally Invasive Surgery has been operated to cure digestive diseases and to develop various treatments.

Curriculum Introduction

The curriculum is made by the teamwork of experts in the school and three colleges, according to their specialties in different organs, who collaborate with each other to instruct the occurrence, causes, diagnoses and treatments of diseases. It also contains various selections for surgery operations, listing the weaknesses and advantages, depicting the kinds and treatments of complications. **Teaching Method:** Lectures by instructors, according to their specialties in digestive organs. Generally, the evaluation will be made in single-choice questions with four options, or Questions & Answers

Nerve System Diseases

Curriculum Content: It is teaching you the most common peripheral nerve diseases and their treatments, such as head trauma, spinal cord injury, encephaloma, cerebrovascular diseases, Congenital malformations, Cervical and Lumbar degenerative diseases, peripheral nerve lesion and damage, Spinal cord tumors and Intracranial infection. There is newly developed surgery: Stereotactic Surgery, Functional Surgery, Epilepsy Surgery and Radiosurgery.

Curriculum Introduction

Students will be orderly instructed the whole curriculum of neurosurgery containing the basic concepts, required information, diagnoses of diseases, treatments and tracking. Meanwhile,

the latest ideas and forecast on the future development will also be introduced.

Teaching Method: Lectures

Special Topics on Surgery

Curriculum Content:

Surgery and rejection of heart, lung and liver transplant

Surgical operations to cure portal hypertension

Surgical operations of facial and upper limbs reconstruction

The treatments and contraindications of additional chemotherapy and radiotherapy for surgical patients

Sports Injuries

The treatment of Morbid Obesity

Laboratory Animal Law

Curriculum Introduction: It introduces the most advanced and professional surgery specialties to let students learn the latest operations and treatments in the field of surgery. Students will study from the entry level Surgery Overview to the advanced sub-specialized courses, which particularly provide them with the newest organ transplant and Research Methodology that they will acquire the ability to perform experiments on animals.

Teaching Method:

Lectures by instructors, according to their specialties, Slide Presentation

Thoracic Surgery

Curriculum Content: Care before and after

cardio-thoracic Surgery, Chest trauma

Congenital and acquired heart valve surgery

Surgical operation to cure arrhythmia

Esophageal surgery and reconstruction

Heart and lung transplant. Curriculum Design:

It covers cardiology and thoracic, care before surgery, various trauma, benign and malignant cardio-thoracic tumors, treatments of congenital and acquired heart diseases that students can be expected to overall comprehend cardio-thoracic diseases.

Teaching Method: Lectures by instructors, according to their specialties, slide Presentation

Clinical Anatomy

Curriculum Content: Unlike the Gross Anatomy to teach students by observing three-dimensional structure of human system or portions of human body with naked-eye, this curriculum stresses on the treatment for clinical application. Hopefully, it will appeal to students that they can further understand the importance of human anatomy.

Curriculum Introduction: All instructors are chief physicians of clinical services in our school, who instruct the anatomical position of each apparatus and related structures by the treatment-oriented teaching, based on their respective specialties in apparatuses.

Teaching Method: Lectures by instructors, according to their specialties

Teaching in Surgical Clinic

Students must complete clinical core courses, according to "Surgical Learning Passport--The Internship Program for Fifth and Sixth Medical Students", which include the internship courses General Surgery, Colorectal Surgery, Pediatric Surgery, Neurosurgery, Plastic Surgery, Cardiovascular Surgery and Thoracic Surgery. They will learn general ideas about surgery, understand common surgical diseases, and strengthen their ability to analyze medical history and

Faculty

The department of surgery, up to August, 2009, has fourteen full-time teachers, three professors, three associate professors, four assistant professors and four lecturers. Besides, the department has invited twenty-nine domestic and overseas surgical experts to be part-time teachers, who include eleven professors, three associate professors, four assistant professors and eleven lecturers. There are total forty-four clinic teachers, including seven professors, seven associate professors, four assistant professors and twenty-six lecturers, who are all together teaching general surgery and clinic courses.

Distinctive Feature of Research

To follow policies of the medical school for creating a higher research atmosphere and enhancing better quality and larger quantity of paper publication, faculties are encouraged to apply for research projects, campus and off-campus; further, they are welcome to join many seminars, domestic and overseas. Here is a list of each department's research field:

General Surgery: It contains clinical research of common cancers, such as colorectal cancer, liver cancer, stomach cancer, breast cancer; and fundamental medicine research of molecular biology and cancer information. In addition, minimally invasive surgery is very useful to cure and study these diseases: obesity, acute appendicitis and gastroenterology.

Neurosurgery: It emphasizes fundamental and clinical research of brain trauma, brain tumor, cerebrovascular accident and degenerative neurological disease.

Plastic Surgery: It consists of six major sections of orthopedic trauma (upper limbs trauma, facial fractures), cancer reconstruction, burn treatment, reconstruction of congenital defects, chronic wound treatment and cosmetic surgery. It has been constantly progressing in innovative surgical operation, high quality service, staff training, research and development.

Cardiovascular Surgery: It has united fundamental and clinical research to lead domestic translational medical research of cardiac surgery.

Thoracic Surgery: It covers lung, esophagus, pleura, trachea, mediastinum, diaphragm, chest wall, and so on. It is the most important to study the treatment of lung cancer, esophageal cancer, and pneumothorax.

Pediatric Surgery: Laparoscopy has been well developed to make a perfect surgery of minimized wound, least pain and fastest recovery.

Prospect

To integrate a firm basis of clinical teaching plan, professors of surgery department will get

involved in practice teaching of anatomy.

Students can solidify fundamental knowledge and clinical application from what they learn from the clinical anatomy curriculum.

To organize a cooperation between clinical and fundamental research, the surgery department will integrate physiology, pathology, microbiology and immunology to perform the fundamental research of clinic.

(Yon-Shiau Chiang, Director/Associate Professor)

婦產學科

簡史及概況

婦產學科教授範圍涵蓋婦科教學、產科教學及不孕症暨生殖內分泌。教學方向針對專業學識、臨床醫學服務及研究發展，三大方向齊頭並進，學生亦可藉此使臨床處理技能日益進步。

為使學生能具全面性的了解，特別針對學生依婦科、產科與不孕症各分科，各相關醫院據此設計完整的核心課程，並邀請各大醫院婦產科學之專家授課，以期收得最佳之學習效果。婦產部有晨會、病例討論會，以及專題演講等，並定期邀請國內外婦產科專家參與，以提昇本部教學活動品質。

婦產學科希望除了培養全方位專科醫師外，也讓學生更能決定未來之習醫方向。除了全人教學，我們也期待藉由優良的學術研究表現帶領學科。此外，學科為教職人員舉辦各類在職訓練精進教學方式，並舉辦各種國內學術演講，更加強與國際學術交流，邀請國內外之外賓專家舉行專題講座，以期邁向國際大學之林。

教學目標與特色

生殖科技為本學科發展特色之一，八十二年成立『生殖醫學研究中心』以發展尖端生殖醫學科技，目前為國內之佼佼者，國際上亦享有聲譽。同年度起，醫學研究所開始招收婦產科研究生，八十六年開始設立臨床醫學博士班，積極培訓婦產科專業研究人才。藉由臨床工作與學術研究緊密結合，本學科已成為國內首屈一指的婦產科及生殖科技中心重鎮。研究重點包括為子宮內膜異位症、精子形態動力、卵子顯微注射、胚胎著床與自然老化。生殖醫學中心將同時積極推動與國內外各大醫學中心及中央研究單位之交流及合作，以提昇本科之學術地位。

婦科方面，婦產部具備最新之腹腔鏡系統，以訓練手術人才，本科腹腔鏡手術之創新與純熟已臻國際水準。婦科癌症團隊亦為院方癌症中心之一環，積極提昇癌症診療品質，目前正從事卵巢癌之研究。在產科方面，新大樓具備全新產房設備，增設中央監控式胎心音監視器，提昇產科服務品質。