

温州医学院

眼视光学院

SCHOOL OF
OPHTHALMOLOGY
& OPTOMETRY
Wenzhou
Medical College

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前言

眼视光学是一门既具有经典传统色彩、又具有现代高科技特征的医学专业，也是一类饶有趣味、充满挑战、富有回报的医疗职业，该专业以光学、药物、手术等手段，以改善和促进清晰舒适视力为目标，以保护眼睛健康为己任，这是一项给人类带来光明的崇高事业。

温州医学院在国内最早创立了眼视光专业，经十余年的尝试和努力，并集世界发达国家之经验和我国发展之国情，已对专业的形式和内容、深度和广度、内涵和外延有了一定的认识和理解，简而言之，可将其特征概括如下：

- 1、该专业隶属于医学系统；
- 2、高级专业人才由医学院校培养；
- 3、专业知识结构为现代眼科学和视光学两大学科的有机整合；
- 4、本科毕业生可获医学学士学位并取得医师资格；
- 5、具有处方权和手术权。

目前温州医学院眼视光学院主要培养五年制的本科生和进一步深造的研究生，经过本专业教育、训练而毕业的眼视光医师，将能处理与眼睛健康和视力保健相关的生理、心理、病理、环境和社会等诸多影响因素，从而在最大限度、最大范围内提供最有效、最优质的医疗健康服务。毕业后可在各级医院、眼视光学临床门诊、科学研究机构，以及涉及视力保健产品的公司、眼镜企业就业。本学院同时还成功地发展了眼视光专业的成人教育、继续教育系统，可为在职的眼科医师、视光学医师、视力保健工作人员、眼镜验配从业人员进行规范而合格的职业培训。

为培养和造就高素质、高水平、高度社会责任感的眼视光医师，我们将始终努力做到：

- 吸引和发展业务精湛的教职员工，他们将对学生的成长和发展作出全面承诺；
- 创造一个结合传统、改革、发展和世界同步的动态环境，促进对专业的专注和使命感；
- 培养责任感、文明道德行为和同情心，建立终身学习的自觉性；
- 建立以病人为中心的服务观念，并以精湛的专业技术服务大众；
- 发展科学研究，并以研究成果裨益于专业进步；

属于本专业的所有教职员工和学生都面临机遇和挑战，因为这是一个前景灿烂、充满生机的医学领域，光明使者的崇高职责和业绩将会赋予我们和我们所关心的人们更多的幸福和快乐。

Ophthalmology & Optometry is the medical health profession with characteristic of classic and modern technology. Ophthalmology & Optometry offers a wide variety of interesting challenge, and rewarding careers care for the most treasured of our human senses through medical technology of vision aids, drugs and surgery.

The School of Ophthalmology & Optometry of Wenzhou Medical College was the first educational institute with the establishment of the ophthalmology and optometry program. It was set up in 1988 and has been operating successfully. We have better understanding and further explored the principles and value of ophthalmology & optometry by extending through information sharing with colleagues locally and oversea. Briefly speaking, features of higher optometry education represented involve: 1) discipline categorized into medicine; 2) Professional trained in a medical area; 3) professional knowledge made up of two integral parts of modern ophthalmology and optometry; 4) Bachelor's degree of Medicine and doctorate to be offered upon completion of five-year full-time course; 5) qualification to prescribe medicine and surgery. The graduates of this five-year course are educated and trained to provide both diagnosis and treatment of eye disease and to deal with a broad range of physiological, physical, environmental and sociological issues that have an impact on effective patient care in the optimum health care. Careers development are in hospitals, optometry clinics, industrial, consulting institution, teaching and research departments. In addition to the high degree education, the school also offers the in-service education system for the practitioners to uplift the quality and quantity of their service.

The mission of the School of Ophthalmology & Optometry is to provide the optometric needs to the public by producing graduates at the highest proficiency, integrity, and professionalism. In achieving its mission, the school.

- Attracts and supports a faculty which excels at teaching and is committed to the growth and development of students;
- Creates a dynamic environment which combines tradition and innovation, and fosters intellectual inquiry and sense of responsibility;
- Cultivates compassionate and ethical behavior, and advocates life-long learning
- Encourage and support personnel in every aspect to develop the "patient first" attitude and instills sense of duty for the health and social welfare of the community.
- Facilitate clinical research for the benefit of eye health care.

The faculty and students involved in the school will find that the profession is an opportunity for a challenge. It is a bright, productive and enjoyable career and we are entrusted with the responsibility for caring for a precious gift—the gift of sight.

温州医学院眼视光学院介绍

温州医学院位于东海之滨的沿海开放城市浙江省温州市，温州医学院是率先在我国开展眼视光学研究和教育的高等医学院校：1976年在我国著名眼科专家缪天荣教授的领导下，建立了眼科学术研究室；1978年，在我国首次招收以眼科学为研究方向的研究生；1988年，经国家有关部门批准，建立眼视光专业，成立我国第一个培养眼视光高级医学专业人才的院系；1992年，经国家卫生部批准建立卫生部眼视光研究中心；1997年在形成一定规模的基础上，建立了眼视光学院。二十多年的风雨历程，几代学人的艰苦创业，从无到有，从小到大，终于形成了一定的规模、相当的优势和明显的特色，迎来了温州医学院眼视光事业的春天。

□ 在眼视光学的医学高等教育方面：自创办眼视光专业以来，我们在积极消化、吸收国外视光学教育先进知识和经验的同时，努力探索走一条适合中国国情、有中国特色的眼视光学发展道路，在人才培养目标方面，首先要求学生在校视光专业方面具有较全面的专业知识和实践能力，以填补我国在该领域高级人才方面的空白，逐步与当今国际视光专业教育“接轨”，同时又强调现代眼科学知识和技能的训练，使学生毕业后即能以其专长为人民的眼睛健康和视觉保健贡献力量，另外在课程设置方面加强基础医学、临床医学等专业科目，做到医理结合，多学科结合，使专业知识结构趋向合理，具有“宽口径”特点，毕业生既适合于较高级、较专门化的临床、教学和科研单位，又适合各级基层单位，做到既专又广，能上能下。至今已毕业大学生125人，研究生30人，他们分别在浙江和全国各地开展眼科和视光学诊疗工作，用人单位反馈良好，现有在校本科生125人，目前已有许多用人单位前来预定毕业生，据此今年眼视光专业招生人数已扩大一倍，面向全国招生的区域也更广。现我们拥有一支包括教授、副教授、讲师等职称的60余人的专职教学队伍，拥有自己编写的与国际接轨的中文系列眼视光专业教材，建立了完整的教学评估体系和电脑多媒体教学系统，仪器价值达1300万元，教学设备和实验室堪称全国领先。有关眼视光学的教学研究成果两次获得浙江省优秀教学成果一等奖。我们的实践还得到政府有关部门和国内著名眼科专家的认可，目前已有多家国内知名医科大学随我们之后建立或正在筹建眼视光专业，由此我们也受到国际学术界的瞩目和赞赏，认为这是一新的视光学教育模式，是西方国家为之奋斗数十年、上百年尚未达到的目标，是当今全球最佳的视光学教育模式之一。可以这样认为，经过十多年的探索和实践，我们已建立了比较完整的具有中国特色的眼视光学教学体系，形成了被国际上称之为眼视光学的“中国温州模式”，确立了温州医学院在眼视光学教育领域的国际地位。就其特征简而言之，以温州医学院为代表的眼视光高等教育主要包含以下内容：1、学科隶属于医学系统的范畴；2、高级专门人才由医科院校培养；3、专业知识结构为现代眼科学和视光学两大学科的有机整合；4、五年制本科毕业生可获医学学士学位并取得教师资格；5、具有处方权和手术权。；

□ 在眼视光学的在职教育方面：为了解我国验光配镜从业人员的职业培训之燃眉之急，我们还积极开展与视光学相关的在职教育、继续教育、成人教育和函授教育。除了完成浙江省的医学继续教育任务外，自1993年以来，多次开办各种类型、各种层次的全国性质验光配镜培训课程。如与中国最大的隐形眼镜企业美国博士伦公司举办了为期十四个月的隐形眼镜函授课程；与轻工部眼镜质检中心合作对眼镜质检和眼镜从业人员举办了为期九个月的视光学初级函授课程；尤其值得一提的是与美国强生视力保健公司合作进行的隐形眼镜教育项目，在三年多的时

Introduction to School of Ophthalmology & Optometry Wenzhou Medical College

Wenzhou Medical College (WMC), the first medical institution of higher learning to conduct research and educational work on Ophthalmology and Optometry, is situated in Wenzhou, Zhejiang Province, a coastal city opening to the outside and bordering the East China Sea. With innumerable trials and hard-hips experienced and arduous pioneering effort made generations of dedicated scholars, Ophthalmology and Optometry practice in WMC has developed from nothing to the one with considerable magnitude, dominant position and distinctive features. The chronicle listed below will show you the rapid development in this field.

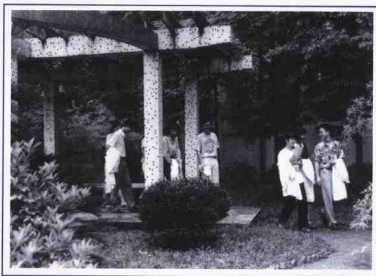
- 1976 The Laboratory of Ophthalmic Optics was founded, thanks to Prof. Miao Tianrong, the advocate and well-known Ophthalmologist.
- 1978 The first post-graduate program in China majoring in Ophthalmic optics was enrolled.
- 1988 First the Faculty and then the Dept. of Ophthalmology and Optometry was set up, the first one in China to train the advanced professionals.
- 1992 The Optometry Research Center of Ministry of Public Health was established.
- 1997 School of Ophthalmology & Optometry was set up.

Education

Since the establishment of the Faculty of Ophthalmology and Optometry, we've been striving to seek a better and more Chinese way of Optometry education by positively digesting and absorbing the foreign advanced knowledge and the valuable experience. On one hand, students are required to develop comprehensive Optometric expertise and practical skills in order to satisfy the urgent need of the society for the optometric elite, hereby gradually coming in line with the international optometry education. On the other hand, modern ophthalmological knowledge and skills are equally emphasized so that the students, after they graduate from the college, will render better and wider services. To achieve this goal, we provide them with a multi-disciplinary curriculum based on an integrated science policy to rationalize the knowledge make-up which includes basic medicine and clinical medicine. In this way the students are trained to become professionals of high caliber and more flexible in taking up either advanced and specialized teaching and research work in the higher institutes or clinical work in the general grassroot units of all levels. Up to now, 25 graduates and 30 post-graduates have been turned out, who are serving as ophthalmologists or optometrists in Zhejiang and other parts of the country. Desirable feedback has been drawn from their working units. Now the undergraduates are 125 in number, and the enrollment will be doubled in the fall 1998, considering the fact that the students who are to graduate in the following two years have already been reserved in advance. We now have a professional teaching staff of 60, who are professors, associate professors and lecturers. Course book series in Chinese in line with international practice, along with a complete set of teaching evaluation system and computerized multi-media teaching devices are available.

The teaching and laboratory equipment worth 15 million YUAN may be rated as the first class in China. Our teaching and research projects in the field of Ophthalmology and Optometry have been twice awarded the First Prize for Excellent Teaching Achievements in Zhejiang Province. What we have achieved here in WMC are also highly valued by both the government and the experts, which can be best confirmed by the successive establishment of the similar Optometry programs in the famous medical universities like Sun Yat-sen Medical University (Guangzhou), West China Medical University (Chengdu) and Shanghai Medical University (Shanghai). For this reason we've become the focus of worldwide and are highly appreciated among academic circles abroad. They take it to be a brand-new and optimal pattern for Optometry education in the world, for which the Western countries have been struggling hard for decades, even for centuries. We may well follow that after more than ten years of exploration and practice, we've set up an integrated system in Optometric and Ophthalmological education with Chinese features, now widely known as "Wenzhou Model" thus establishing itself as a member of standing on the international stage. Briefly speaking, features of higher Optometry education represented by WMC involve: 1) a discipline categorized into medicine; 2) specialized advanced professionals to be trained by medical universities; 3) professional knowledge made up of two integral parts of modern Ophthalmology and Optometry; 4) Bachelor's degree of and doctorship to be offered on completion of five-year full-time courses; 5) rights granted to prescribe medicine and surgery.

间里，已在十多个城市举办了17期培训班，培训眼科医师和验配师近800人，这是国内第一个有固定教师队伍、有教学大纲、有教材、有实验课的隐形眼镜在职培训课程。作为领导和策划者，我们成功地组织了来自全国的教师访问学者队伍多次赴美国进修学习，我们编写了教学大纲和教材，制作了先进的电脑多媒体教学软件，建立了较完善的教学评估体系，做到了隐形眼镜教育者教育、验配师教育、眼科医师教育、配戴者教育系列一条龙，为我国的眼镜和隐形眼镜等在职教育闯出了新路子。我们还对台湾地区的眼镜业开展为期三年（6个学期）的视光学专业函授教育，参加人员200多人，去年已胜利完成，部分学员已进入高一层次的眼视光学研讨班继续学习。这对提高台湾的眼镜业水平起到了很好的作用，也对海峡两岸的眼镜业交流起到了很好的作用。我们还积极帮助全国兄弟院校和医疗单位培训师资、眼视光学专业研究生和眼视光学专业人员，已有十几位各类人员分别在我院进修教学和临床，回到原单位后都成为眼视光学的骨干力量，发挥了很好的作用。



在眼视光学的临床医疗方面：我们在眼视光学的临床方面，积极、慎重地尝试将传统意义上的眼科学和视光学有机地结合在一起，认真实践并应用这种具有明显中国特点的理论，首先要求学生的知识和临床技能集眼科和视光学两者为一体，并融会贯通；同时设计我们的眼视光医院为两者的有机结合，1997年4月奠基的温州医学院眼视光医院将成为这方面的先行者。该医院座落在温州医学院大门西侧，占地1500平方米，共建七层，总面积6500平方米，今年10月正式启动使用。它包括开展屈光不正矫治、弱视治疗、低视力康复、近视手术矫治等视光学测试和诊治手段，同时它还包括眼底病、角膜炎、白内障、青光眼等眼科常见病的检查、诊断、治疗（药物和手术）。温州医学院眼视光医院的建设已引起国内外的广泛重视。破土动工时，包括国际视光



学委员会主席、亚太区视光学会主席、国际知名大学的院长在内的八个国家和地区的近三十位国际专家、教授，来自国内著名医科大学和医院的眼科教授和专家、来自国家卫生部有关司局、浙江省和温州市的有关领导参加了庆祝仪式。在建设过程中，来访宾客络绎不绝，关注兴趣者比比皆是，充分说明这种模式的引人注目之处和特殊意义所在。

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在眼视光学的科学研究方面：温州医学院早在一九七七年就建立了我国第一个眼视光学研究机构，是我国最早开展该领域科学研究的单位，并已取得了大量有影响的研究成果。在国内外学术杂志发表有关眼视光学研究论文百多篇。其中在国外权威性学术杂志发表论文二十余篇，申报并已批准国家发明专利、使用新型专利近10项，已在中国标准出版社、天津科技出版社、上海科技出版社、浙江科技出版社、浙江大学出版社等分别出版《标准对数视力表》、《眼镜学》、《临床视觉光学》、《隐形眼镜学》、《汉字阅读视力表》等专著，其中大部分著作作为填补国内空白之作，同时还有《隐形眼镜基础》等多本译作出版。标准对数视力表于1990年被定为国家标准，在全国强制实施，多项成果获得国家和省市科技奖。一些成果通过国际、国内学术会议向国内、外介绍，还有的被列为卫生部的重大推广项目等。目前在研的项目分别被列为国家自然科学基金、浙江省自然科学基金、国家教委优秀青年基金、卫生部科研基金等的资助项目，其大部分研究处于国内领先水平。有鉴于此，从1984年起至今连续三届被评为浙江省高校重点学科，还被评为浙江省重点研究实验室。1992年4月，国家卫生部经过专家咨询、严格考察、多方论证后决定在温州医学院建立卫生部视光学研究中心。建立该中心的目的是：适应人民群众对视觉健康和眼保健的要求，缩小中国与发达国家视光学领域的差距。卫生部视光学研究中心的建立为温州医学院的眼视光学学科发展带来了契机和动力，奠定了它在国内外的学术地位。与此同时，卫生部部长陈敏章为中心题词：“愿视光学研究中心为发展我国视光学事业作出贡献。”

在眼视光学的国际交流方面：温州医学院眼视光学学科一直重视国际间的合作和交流，已先后与美国新英格兰视光学院、休斯敦大学视光学院、加州大学伯克利视光学院、澳大利亚墨尔本大学视光学院、新南威尔士大学视光学院、新西兰奥克兰大学视光学院、日本名古屋薄池眼镜学院、香港理工大学视光学系等建立了教学和科研协作关系。1992年10月，美国新英格兰视光学院派出以院长、董事会主席率领的代表团前来温州与我们签定姐妹学院关系协议，该协议包括：1、眼视光学访问学者计划；2、眼视光学合作科研计划；3、举行国际眼视光学会议；4、眼视光学学生交流计划。到目前为止，上述协议的绝大多数内容已实施，现在合作内容已扩展到全国的主要医科大学，为发展中国的眼视光学教育起到了不可磨灭的作用。1994年和1997年我们在美国新英格兰视光学院等的帮助下，分别在北京、上海和温州召开了第一届和第二届“卫生部视光学研究中心国际顾问委员会会议”。来自国际和国内的眼科和视光学专家欢聚一堂，共商中国眼视光学发展大计，这两次会议在国际和国内都产生了很大的影响。1997年12月，以温州医学院为首的五所中国医学高等院校代表聚首美国德州圣安东尼奥商榷，一致同意建立了中国医学院校眼视光学高等教育协作组，并推举温州医学院为组长单位和秘书长单位。今年4月，来自美国著名大学的校长们和中国的知名医科大学的眼科教授再次会聚温州，召开“中美眼视光学教育战略研讨会”。共商中国眼视光学教育大计。近年来，我们还多次代表中国在国际眼视光学会议上发言、演讲，介绍中国眼保健和眼视光学进展情况，展示中国眼视光学教育和科研成果。我们的成员也进入了眼视光学国际大家庭行列，如担任亚太区视光学委员会执行委员、担任国际隐形眼镜教育委员会委员兼中国负责人等。

我们还与国际著名的眼保健跨国企业建立了良好的关系，如美国的Johnson & Johnson、Ciba Vision、Bausch & Lomb公司，日本的Topcon株式会社，日本的Hoya光学公司，法国的Essilor公司等。这些企业给了我们许多支持和帮助，并共同开展眼视光学教育和研究。如Johnson & Johnson公司、日本的Topcon株式会社、Hoya光学公司和Essilor公司还分别在温州医学院建立了与眼视光学教育有关的合作培训项目。

Clinical practice

We've prudently but vigorously tried to apply to practice the theory with Chinese unique features by integrating Optometry with traditional Ophthalmology. For this purpose, the students are required to achieve mastery through an integrated study of Ophthalmology and Optometry both in theoretical knowledge and clinical skills. The Hospital of Ophthalmology & Optometry, whose foundation was laid in April 1997, is designed to satisfy this requirement and will be forerunner. The seven-story hospital building, covering an area of 1500m² with a floor space of 6500m², is located in WMC on the west side of the school gate. It is expected to be put into use in October 1998. Various Optometric tests and devices will find application to the treatment of ametropia, amblyopia, low vision, PRK as well as the examination, diagnosis and treatment (medical and surgical) of the common Ophthalmological diseases like ocular fundus disease, keratopathy, cataract, glaucoma. The hospital under construction has attracted wide attention both at home and abroad. Attending the foundation laying ceremony were Mayor of Wenzhou City and important officials from Ministry of Public Health and Provincial Bureau of Public Health, apart from approximately 30 experts, professors, ophthalmologists and optometrists from eight countries and districts including the Chairman of World Council of Optometry (WCO), Chairman of Asia-Pacific Optometry Council (APOC) and presidents of well known colleges and universities. A continuous flow of visitors still came in the course of its construction, expressing great enthusiasm and interest in the project. From the above we may feel how significant and conspicuous this integrated model is!

International Exchange

School of Ophthalmology & Optometry, WMC has always been attaching great importance to the international cooperation and exchange. Intercollegiate cooperations have been established one after another with New England College of Optometry, (U.S.A.), Berkley School of Optometry, University of California, School of Optometry, University of Melbourne (Australia) and Department of Optometry, Hongkong Polytechnic. In October 1992, New England College of Optometry sent to WMC the delegation led by the President of the College and the Chairman of the Board Trustee and friendly intercollegiate agreement was signed, which includes 1) visiting scholar program; 2) cooperative scientific research program; 3) launching of international optometric symposiums; 4) student exchange program, with most of them successfully fulfilled. Now the co-operative programs are being extended to more medical universities in China. In 1994 and 1997, with the help of the New England College of Optometry, the 1st and 2nd meetings of International Advisory Committee of the Optometry Research Center were successfully held in Beijing, Shanghai and Wenzhou respectively. These two meetings were highly influential since it brought to gather the Ophthalmologists and Optometrists from home and abroad to deliberate over the matters of vital importance concerning the further developments of China's Optometric profession. In the past few years, we've taken an active part in all kinds of academic conferences and on many occasions addressed the meeting on behalf of China, introducing the latest development of China's eye care profession and displaying the achievements in Optometric education and research. Some of our faculty members are appointed the executive member of APOC, member of IACLE (Chinese coordinator). What we've accomplished for China's Optometry development has been reported more than once in the international news media and Optometric journals.

We've also established friendly relations with world-known transitional eye care cooperations, such as Johnson & Johnson, Ciba Vision, Bausch & Lomb, Topcon, Hoya, Essilor. All of them have not only given us invaluable help and generous support but also cooperatively conducted Optometry education and research programs. Cooperative training centers of Optometry education have been set up in WMC in collaboration with Johnson & Johnson, Topcon, Hoya and Essilor.



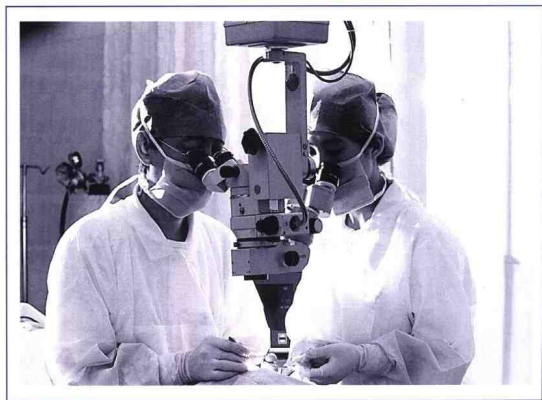
温州医学院眼视光专业(五年制本科)课程表
 THE CURRICULUM FOR UNDERGRADUATE(5-YEAR)
 IN THE SCHOOL OF OPTOMETRY & OPHTHALMOLOGY
 AT WENZHOU MEDICAL COLLEGE

课程	COURSE	总课时数 TOTAL	讲课 LECTURE	实验 LAB/ preclinic
第一学年 The first Professional year				
中国革命史	China History	51	51	
体育	Physical and Health Education	70	70	
英语 I	English I	85	85	
生物与遗传学	Biology and Genetics	68	32	36
基础化学	Chemistry	102		
物理	Physics	102	51	51
高等数学	Advanced Mathematics	51	51	
德育	Ethical Education		72	
法制学	Law for Medical Practice	54	54	
英语 II	English II	90	90	
医用化学	Medical Chemistry	108		
人体解剖学	Human General Anatomy	126		
组织胚胎学	Histoembryology	90	54	36



第二学年 The second professional year

社会主义学	Society and politics	54	54	
体育	Physical/health education	72	72	
英语III	English III	90	90	
生物学	Physiology	135	108	27
生物化学	Biochemistry	144	90	54
微机学	Computer Science	144	72	72
英语IV	English IV	90	90	
微生物与免疫学	Microbiology and Immunology	117	72	45
寄生虫学	Parasitology	72	36	36
病理解剖学	Anatomopathology	126	72	54



第三学年 The third professional year

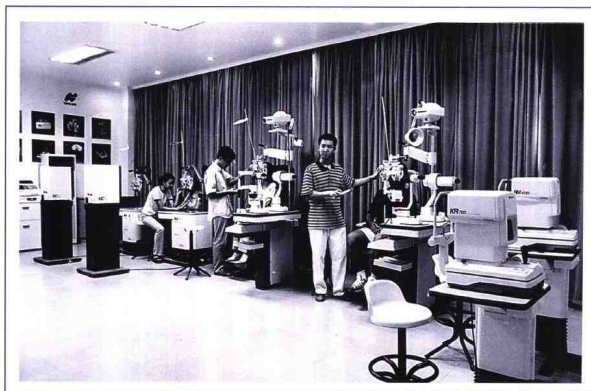
哲学	Philosophy	54	54	
局部解剖学	Topographic anatomy	72		
病理生理学	Pathophysiology	72	54	18
药理学	Pharmacology	99	72	27
诊断学	Diagnostics	144	72	72
眼科基础*	Basic science of Ophthalmology	63	53	10
应用光学*	Applied optics	54	36	18
医学影像学	Medical Imaging science	90	36	54
内科学	Internal Medicine	126	72	54
临床视光学基础*	Introduction to clinical optometry	63	18	45
眼公共卫生学	Public health on Primary Eyecare	45	24	21



第四学年 The fourth professional year

眼科学*	Advanced Ophthalmology	108	72	36
眼生理光学*	Ocular Physiologic Optics	54	36	18
眼镜学*	Ophthalmic Lenses	54	36	18
眼科光学器械*	Ophthalmology and Optometry Instrumentation	54	36	18
外科学	Surgery	144	90	54
皮肤科学	Dermatology	45	24	21
耳鼻喉科学	Otolaryngology	72	36	36
隐形眼镜学*	Contact Lenses	72	54	18
专业英语*	Optometry English	54	54	0
验光学*	Refraction	72	18	54
斜视/弱视学*	Strabismus/Amblyopia	27	21	6
双眼视*	Binocular Vision	25	14	11
低视力*	Low Vision	20	10	10
医学统计学	Medical Statistics	72	54	18

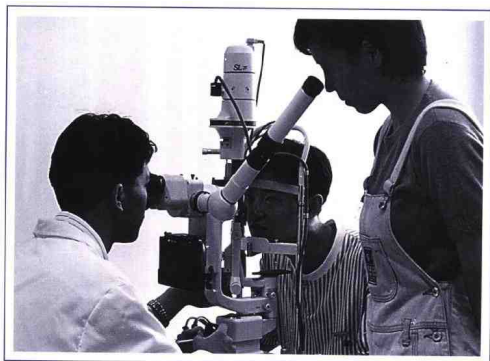
(*attached the brief introduction of the course)



第五学年

The fifth professional year

		CLINICAL ROTATION
毕业实习		
内科	Internal Medicine	8 weeks
外科	Surgery	8 weeks
耳鼻喉科	Otolaryngology	2 weeks
皮肤科	Dermatology	2 weeks
眼科学	Ophthalmology Clinic	16 weeks
眼科病房	Wards of Ophthalmology	8 weeks
眼科门诊	Out-patient Department of Ophthalmology	8 weeks
眼视光学	Optometry Clinic	8 weeks
视光第一门诊部	1st Optometry Clinic	
斜视/弱视门诊	Strabismus & Amblyopia Clinic	3 weeks
视光第二门诊部	2nd Optometry Clinic	2 weeks
近视眼激光治疗中心/白内障治疗中心		
	Refractive Surgery Center/Cataract Surgery Center	3 weeks



课程简介

Brief Introduction

to Courses of Optometry & Ophthalmology

■ 眼科学基础 Basic Science of Ophthalmology

Basic science of ophthalmology presents the basic knowledge and skills for ocular disease. After learning this course, the students are expected to know the occurrence and course of the ocular disease and basic examining, diagnostic and therapeutic methods. The contents are composed of ocular anatomy, physiology, pathology, pharmacology, microbiology, immunology, genetics and examination methods of the eye.

眼科学基础是为研究视觉器官疾病的防治掌握必要的基本理论、基本知识和基本技能。通过教学,使学生掌握眼病发生、发展的基本规律及眼病的检查、诊断和治疗的基本方法。主要内容包与眼科有关的眼的解剖、生理、病理、药理、微生物、免疫、遗传及眼科检查法等。

■ 应用光学 Applied Optics

Applied optics covers the topics of geometric optics and physical optics which associated with vision. Based on the eye as optical instrument, lecture and laboratory are focused on topics of image formation, lens and prism, co-axial spherical system, optical characteristics of lens on eye, light wave properties, light quantum properties.

通过对应光学基本内容、研究对象及所涉及的光学领域的了解,弄清应用光学与眼科、视光学的密切联系,另外,通过对光的本性的阐述,来了解光学发展的概况及现状。主要内容为几何光学的基本定律和成像概念、球面和共轴球面系统、理想光学系统、平面镜和棱镜、光度学和色度学基本知识、像差理论等。

■ 临床视光学基础 Introduction to Clinical Optometry

Introduction to clinical optometry covers the fundamental theories and methods of vision science and vision testing. Eye examination and vision measurement techniques are discussed, including schematic eye analysis, visual chart design and clinical application, light detection, color vision, factors affecting vision. Techniques for detection vision defects are discussed and analysis.

临床视光学是眼视光专业必修课,主要涉及视觉的基本理论及其临床检测,包括模型眼分析、光觉、色觉等诸多视觉影响因素分析、视觉检查方法和应用。该课程是在学生学习了《应用光学》、《眼镜学》的基础上,学习关于光学知识在人眼视觉的生理和病理现象及其处理方法诸方面的知识和技能。

■ 眼公共卫生学 Public Health on Primary Eyecare

Public health on primary eyecare presents the way of health care delivery and optometry practice in health care system. It provides the students the outline of organization and procedure of primary eye care, basic quantitative skills in biostatistics and epidemiology, analysis of research reports. It will emphasize the importance of the prevention of ocular trauma and vision problems.

通过本课程的教学,培养学生“预防为主”的观点,掌握眼保健组织的组织方法和工作方法,掌握眼科流行病学的调查方法,眼外伤的预防,青少年视力保护等方法,为将来开展防盲、治盲、低视力矫治打下基础。本课程的主要内容包括视力损害的公共卫生原理、眼卫生保健组织的分级、眼保健计划、眼科流行病学、眼外伤的预防、青少年的视力保护、防盲治盲和低视力矫治等。

■ 眼科学 Advanced Ophthalmology

Advanced ophthalmology provides the students with a comprehensive understanding of general eye exam. Ocular disease diagnosis and treatment. The students are expected to have good command of the management of conjunctive disease, cornea disease, glaucoma, retina problems and ocular abnormalities associated with system diseases.

眼科学是眼视光专业的主要专业课之一,属必修课。要求通过本课程的学习,了解并掌握常见眼病的诊断与处理

的知识和技能。主要内容有：结膜病、角膜病、青光眼、葡萄膜病、视网膜病等

■眼生理光学 Ocular Physiologic Optics

Ocular physiologic optics consists of fundamental knowledge related to visual optics such as physical, anatomical, physiological, pathological and biochemical contents, which adapted from Physiologic Optics by Adler. The topics will cover the cornea, the extraocular muscles, intraocular pressure, the vitreous, the lens, accommodation, the pupil, visual adaptation, visual acuity, color vision, etc.

生理光学的教学内容均围绕与视光学相关的基本知识，包括物理、解剖、生理、病理及生化等，统称为生理光学。本课程采用以Adler《眼生理学》有关章节编译而成。其主要内容包括：角膜、眼外肌、眼内压、玻璃体、水晶体、调节、瞳孔、视觉调节、视力、色觉、双眼视觉等。

■眼镜学 Ophthalmic Lenses

Ophthalmic lenses aims at fundamental theories and knowledge about ophthalmic lenses and fitting techniques. Spherical lens, spherocylindrical lens, toric lens, prism, bifocal lens, progressive lens, the theory of thick lens are provided. It also includes the topics of lens materials, specification of lenses, fitting techniques. Clinical application to correction vision are facilitated throughout lab and pre-clinic practice.

眼镜学其宗旨是研究眼镜镜片的基本理论、基本知识和眼镜验配技术。内容包括球面镜片、球柱面镜片、环曲面镜片、棱镜和棱镜移心、双光、三光镜片、渐进镜片、厚透镜理论、镜片材料、镜架、镜片质量检测 and 镜片安装技术，以及在临床视觉矫正中的应用。

■眼视光器械学 Ophthalmologic and Optometric Instrumentation

Ophthalmologic and Optometric Instrumentation expects the students to master the optic principles of ophthalmologic & optometric instruments and facilities. The topics will cover slitlamp micro scope, retinoscope, ophthalmoscope, keratometer, optometer, lensmeter, tonometer, A B scan, Ophthalmological photographic facilities. The clinical application and maintenance will be emphasized.

本课程使学生能掌握常用眼视光器械的光学原理、了解它的基本结构、使用方法。主要内容包括眼科光学器械、视光学器械，涉及眼科检查诊断仪器，如裂隙灯显微镜、眼压计、检眼镜、眼科摄影器械、眼科超声仪等；视力测定仪器，如投影镜、验光仪等；还有眼和眼镜片光学参数测定仪器，如角膜曲率计、眼镜片屈光度测定仪等。

■隐形眼镜学 Contact Lenses

Contact lenses covers the basic knowledge and latest development of contact lens. It includes contact lens history, optics, material, manufacture, solution, fitting and evaluation, rigid lens and soft lens, contact lens for astigmatism. Special topics will cover contact lens fitting for keratoconus, children, presbyopia and its therapeutic use. Contact lens associated complications will be discussed on its diagnosis and management.

隐形眼镜涉及隐形眼镜的材料、制造、配戴和临床处理的基本内容和最新进展。主要内容有隐形眼镜光学、隐形眼镜材料、制造和类型、隐形眼镜护理液、角膜、泪膜与隐形眼镜配戴关系、病人的选择、配戴前评价、硬镜和透气硬镜、软镜、频繁更换型眼镜和抛弃型眼镜、圆锥角膜、散光、老视、儿童等特殊类型镜片等。通过本课程的教学，使学生了解和掌握隐形眼镜的性能、特点、临床应用、并发症的诊断和处理。

■专业英语 Optometry English

Optometry English provides for the students who have completed the College English (Vol.1-IV) and basic of ophthalmology and optometry courses. The students are expected to develop further ability of reading, speaking and writing in English on optometry practice. The contents will cover general ophthalmology, contact lens, clinical optometry and primary eye care.

本课程供五年制高等医学院校眼视光专业学生专业英语使用，对象为已经修完《大学英语》1-4册，具备一定语音、语法基础，能够借助辞典阅读中等深度的医学文献，而且具备了眼科学、视光学方面的知识和理论的高年级学生。该课程以专业英文教材作教学范本，内容涉及眼科学、眼镜学、临床视光学、隐形眼镜学等范

困，以期通过本课程学习使学生能较熟练使用英文版专业参考文献。

■ 验光学 Refraction

Refraction is based on laboratory and preclinic practice and problems solving discussion. The students will have proficiencies in clinical vision exam, subjective and objective refraction, binocular balance, phoria measurement.

验光学教学方式以实验室实习和临床前实习操作技能训练为主，并以小组方式和病例讨论方式作为学手段，学生通过该课程训练，掌握主观和客观验光的规范程序、双眼平衡、隐斜测量等。

■ 斜视 / 弱视学 Strabismus and Amblyopia

Strabismus and Amblyopia provides an approach to the clinical evaluation and management of patients with strabismus and amblyopia. Included are etiology, signs and symptoms, natural history, practical significance, and clinical management of comitant esotropia, comitant exotropia, and noncomitant strabismus. Associated anomalies discussed include eccentric fixation, anomalous retinal correspondence, ocular suppression, and abnormalities of the accommodative vergence relationship.

斜视 / 弱视学主要强调斜

视弱视病人的临床诊断和处理方法，所涉及的内容有：共转行斜视和非共转行斜视的病因、体征、症状，此外，还涉及偏心注视、异常视网膜对应点、视觉抑制等临床问题和处理方法。

■ 双眼视 Binocular Vision

Binocular vision covers the topics of orthoptics, conceptual and functional definitions of vision therapy. Three primary areas discussed in this course include: ocular motor, accommodative and binocular visual dysfunction and their redemption.

双眼视的教学内容有：正位视觉的概念，功能性视觉的定义，有关眼球动力学、调节和辐辏系统的协调和失调。学生通过该课程学习，掌握双眼视觉问题的检测方法以及训练方法。

■ 低视力 Low Vision

Low Vision discusses the epidemiology of visual impairment, functional effects of ocular disorders, principles of magnification, low vision examination techniques, and patients education and training in the use of low vision aids.

低视力课程的主要内容有：视觉损失的病因、视觉损失的功能评价、放大器的原理、低视力检查方法，使用低视力矫正器具的病人教育和训练。