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K. Komiyama, Professor and Head of Oral Biology

A. Livingston, Dean of Veterinary Medicine

- J. W. Quail, Professor of Chemistry
- R. L. Randell, Associate Professor of
- Biology

G. Searcy, Professor of Veterinary Pathology Professor of Dentistry, T.B.A. *Denotes non-members of faculty.

GENERAL INFORMATION

The College of Medicine was fully accredited in 1957 by the Association of Canadian Medical Colleges, the Association of American Medical Colleges and the Council on Medical Education and Hospitals of the American Medical Association. Connected with the medical building is the Royal University Hospital of approximately 420 beds with departments directed by the professional heads of the corresponding university departments. Clinical teaching is carried out also in St. Paul's Hospital and City Hospital in Saskatoon, and at the General Hospital, and Pasqua Hospital.

Candidates for the degree of Doctor of Medicine may apply for admission to the college after a minimum of two years following Grade 12 in the pre-medicine program in the College of Arts and Science. Admission procedures are outlined below.

For medical students who wish to undertake additional study in one of the medical sciences, a program is offered leading to the degree of Bachelor of Science in Medicine - B.Sc. (Med.).

Programs in Physical Therapy are provided in the College of Medicine. Consult the School of Physical Therapy section of the *Calendar* for details. No degree program in Occupational Therapy is offered at present at this university, but those contemplating such professional training may take Pre-Occupational Therapy courses in the College of Arts and Science. For details, see Pre-Professional Programs in the College of Arts and Science section of the *Calendar*.

ADMISSION REQUIREMENTS

RESIDENCY AND CITIZENSHIP SASKATCHEWAN RESIDENTS

Qualified applicants must be Canadian citizens or landed immigrants at the time of application.

Applicants normally must have resided in Saskatchewan for three years prior to September 1 of the year in which admission is being sought. However, applicants who have left the province but have previously lived in Saskatchewan for an accumulated period of 15 years (permanent residency) will be treated as residents. Applicants who have previously lived in Saskatchewan for an accumulated period of less than 15 years and do not qualify under the three year condition will receive credit of one year toward the three-year requirement for every five years residency in the province.

An exception to the three-year ruling may be made for members of the Armed Forces of Canada or RCMP or for an applicant whose spouse, parent, or guardian has moved to Saskatchewan for reasons of employment or training. In this case, the applicant must have resided in Saskatchewan for at least 12 consecutive months directly preceding the time of application.

In support of claim to qualify as a resident of Saskatchewan (as noted above), the Admissions Committee will take into account:

• Place of residence of parents, guardian or breadwinner;

 Reasons for any break in continuity of residence, which will include attendance at an out-of-province educational institution, summer employment where applicable, and any other reason deemed to be relevant by the Committee;

• Filing of income tax return as a resident of Saskatchewan (where applicable); Driver's License, Hospitalization.

Note: Residency will date from when Driver's License and Hospitalization have been changed.

• Residency in the Northwest, Nunavut or Yukon Territories.

OUT-OF PROVINCE RESIDENTS

Up to five positions of a total of 55 may be offered to out of province applicants.

Applicants must be Canadian citizens or landed immigrants and have lived in Canada at least three years at the time of application.

An overall average of 70% is required for the prerequisite courses.

An overall average of 80% for the *two best full* under-graduate years is required for out-of-province students. *The two full years must be completed at the time of application*. The top 15 are invited for an interview based on the average of their best two full years. (In the past several years, the average of the top 15 was 90% and higher.)

All applicants must meet the academic requirements outlined in this document. *No exceptions are made.*

All the prerequisites, or their equivalents, must be completed by April of the year in which the application is made. The prerequisite courses are as listed in the *University of Saskatchewan Calendar*.

Ontario applicants - Grade 13 or OAC English is *not* considered the equivalent of ENG 110.6. Introductory university level English is required.

Transcripts* - Copies of transcripts from all universities attended other than Saskatchewan universities *must* be attached to the application. In addition, *official* transcripts must be forwarded by the issuing university directly to the College of Medicine. Transcripts in a language other than English must have an official translation attached.

Calendar* - A calendar from the university attended (if non-Canadian) *must* be included with the application, if in the English language.

Applicants who have attended universities outside of Saskatchewan* are encouraged to check with the Office of the Registrar before applying to determine

whether credit will be granted for the courses taken. In cases where interpretation of marks of a student with at least two years of study from an international university is not possible, the individual will be required to complete one full year of study at an approved university with at least an 85% or the required two full years.

Deadline for out-of-province applicants is December 1 of the year prior to admission. Please note this differs from the Saskatchewan residents' deadline of January 15.

* Saskatchewan residents who have attended universities outside of Saskatchewan must also follow these rules.

ACADEMIC REQUIREMENTS

The academic requirements for the College of Medicine are as follows:

Admission to the Arts and Science premedical program, i.e. graduation from Grade 12 in Saskatchewan with credit for English A30 and B30, Mathematics B30 and C30 (or Algebra 30 and Geometry-Trigonometry 30), Biology 30, Chemistry 30 and Physics 30. A minimum admission average on the required subjects is 65%.

Prerequisites. Students must have completed a number of required courses in the College of Arts and Science before entering the College of Medicine. If students intend to complete a prerequisite course at Intersession of the year of admission, they must obtain permission from the Admissions Chair (Saskatchewan residents only). At the University of Saskatchewan, the required courses are:

BIOCH 200.3 and 211.3

required.

BIOL 110.6 (general) CHEM 111.3 (general) CHEM 251.3 (organic) ENG 110.6 or any two of ENG 111.3, 112.3, 113.3, 114.3

PHYS 111.6 (general) A full course equivalent (6 credit units) in the social sciences or humanities

The Standard First Aid Certificate must be obtained by June 15 of the year of entry. If accepted, a copy of this certificate is

Students may schedule their prerequisite courses (listed above) as they wish but they must attain an overall academic average of 70% in them to be considered for admission. If the average is below 70%, students may improve their average in the prerequisite courses by taking *higher level* courses in the same subject areas.

The Medical College Admission Test (MCAT). All applicants are required to write the MCAT. A minimal score of 8 will be required in the sciences and verbal reasoning sections, and N in writing skills. Scores must be available by the application deadline.

Note: There are only two sittings to write the MCAT; one in April and one in August. The best scores obtained at any one sitting in the last 5 years will be used. Registration packages should be picked up from the Dean's Office by early February.

Average for Admission. To establish an academic average for consideration by the

Admissions Committee, applicants must complete two full undergraduate years of study, taken between September and April. Sixty credit units (30 per year) at the University of Saskatchewan and The University of Regina, is considered a full load. Applicants must attain a minimum of 78% in the two-year average to be considered for admission (80% or higher for out of province). Courses taken at Intersession are not considered in the twoyear average.

Applicants may improve their average for admission by taking an additional full year(s) of university study. However, all programs must lead to a degree or, where students already have (an) undergraduate degree(s), to a certificate** or to a degree in another discipline. It is not acceptable for students who have spent several years at university to take largely 100 level courses to improve their average, nor is it acceptable for students to repeat a course they have already taken and use the new grade for competitive purposes. If in doubt, students are advised to consult the Admissions Office.

**See the College of Arts and Science section of the *Calendar*, under *Advanced and Honours Certificates*.

All applicants must fulfill all the academic requirements. No exceptions are made.

Saskatchewan residents who have taken university education outside of Saskatchewan must follow the rules set out in *Out-of Province Residents* (see * in previous section).

During the university year, an applicant may file an application for admission to Medicine assuming he/she will satisfactorily complete the April examinations of the year for which application is made.

Graduate Students. In considering graduate students who have completed a graduate degree, their average will be based either on their total academic record in their undergraduate program plus their formal courses in their graduate program or their two best full undergraduate years, whichever works to their advantage.

Special Cases. The Admissions Committee may consider up to two special case entrants per year (Saskatchewan residents only). An example would be a single parent whose family responsibilities prevent them from attending university full time. Such applicants must still meet all other academic requirements.

Deferrals. Applicants admitted to first year Medicine may be allowed to defer entry for up to two years. This is normally granted only to postgraduate students to allow them to complete a Masters or Ph.D. degree. Request for deferral must be submitted at the time of acceptance (Saskatchewan residents only). Two deferrals may be granted each year.

CRITERIA FOR SELECTION

Criteria for selection are academic performance and personal qualities.

Academic performance is based on applicants' two best full undergraduate years of study (at the University of Saskatchewan, five full course equivalents taken between September and April are considered to be one full academic year) given that performance has been reasonably consistent or has improved.

Personal qualities are assessed primarily by interview. Three applicants will be interviewed for each position, chosen on the basis of their academic performance in their best full year. However, for the final decision in June, the average of the best two full years will be used. Interviews are approximately 45 minutes and occur during a weekend in March. The applicant is interviewed by a team of four; a medical doctor (who may be a faculty member), a full-time faculty member, a current medical student, a non-medical lay person from the community at large. The interview team is not given any information about the candidate prior to the interview. Interview scores (24 possible points) are calculated by totalling individual interviewers' assessments (scale 1-6).

Three letters of reference are also considered.

The weighting of academic performance to personal qualities is approximately 3:1.

Candidates for Medicine are selected by the Admissions Committee of the College of Medicine on the basis of rank order of competitiveness and consideration of information pertinent to individual applicants. The Committee treats applicants anonymously, i.e. Committee members are provided appropriate information about applicants but without their names.

All candidates are notified of their acceptance by the end of June.

COUNSELLING OF APPLICANTS TO MEDICAL SCHOOL

The Admission's Office is available to assist all applicants who seek counselling regarding admission to Medicine. It is policy, however, not to instruct applicants as to a specific course of action they should follow but to provide the information needed for them to make their own choice with respect to the alternatives available. The following points require special attention:

• No official of the Faculty can guarantee the admission of any applicant. Admission is determined by the Admissions Committee on the basis of an annual competition.

 All applicants are advised to supplement any personal inquiries with written inquiries so that an official response can be made. It is only these written responses which will be considered as evidence of the official advice given by Faculty.

 Applicants are encouraged to discuss their plans to apply for entrance to Medicine with those who can usefully advise them, but they should be aware that second and third hand information about admissions policies is often incorrect and should not be relied upon.

Students should select their courses with a goal in mind. There should be largely upper level courses in their second year and subsequent years, not simply "easy courses" in order to achieve a good mark.

Since many applicants are not accepted into the College of Medicine, students should chose courses in their pre-medical program that could lead to a satisfactory alternative career.

CHANCES FOR ADMISSION

The number of positions available in first year Medicine is limited to 55 (50 inprovince, 5 out of province). Approximately 280 applications (in-province) are received, as well as approximately 280 applications from out of province. *Realistically, to be competitive academically, an overall twoyear average of over 80% (88% for out of province applicants) is required.*

APPLICANTS WITH DISABILITIES AND ADMISSION TO MEDICINE

While a disability should not preclude an applicant from consideration for admission, the disability must not prevent the applicant from communicating with patients and colleagues, from making observations and analyzing clinical data, and from making the medical judgements expected of a physician who has completed the educational program leading to the M.D. degree at this university.

APPLICATION FORMS

Application forms may be obtained from the Admissions Secretary, College of Medicine, in August of the year preceding entry or from the web site at http://www.usask.ca/medicine

The application deadline for Saskatchewan residents is January 15 of the year of entry. There is a non-refundable application fee of \$40. For out-of-province applicants, the application deadline is December 1 of the year preceding entry and the non-refundable application fee is \$75. Enquiries concerning admissions should be directed to the Admissions Secretary, College of Medicine, (306)966-8554 or e-mail med.admissions@usask.ca

ADMISSION OF ABORIGINAL STUDENTS

(Saskatchewan Residents only) Three first year spaces are reserved for persons of Canadian Aboriginal descent. Applicants will require an average of 78% or higher assessed on their two best 30-credit unit pre-medicine years and at least 16/24 on the interview. Applicants of Aboriginal descent will compete within this category, not against the entire applicant pool. Applicants should identify themselves on the application for admission.

REGISTRATION

Registration materials will be sent to eligible students in July. Those wishing to register in person after receipt of the registration materials may do so in the Dean's Office, A204 Health Sciences Building up to the first day of classes.

Late registrations will be permitted only by prior special ruling, following the presentation of acceptable reasons. See the General Information section of the *Calendar* for regulations governing late registrations.

ATTENDANCE

Students are expected to attend all lectures, laboratory periods, seminars and patient contacts regularly. Interactive seminars and patient contact is an unique educational experience, irreplaceable from alternative sources. Students who are persistently tardy or absent from lectures or who neglect academic work, will be subject to disciplinary action and may be excluded from final examinations.

Students must have approval to undertake extramural clerkships and only academically competent students should engage in this work.

DOCTOR OF MEDICINE PROGRAM

Students entering the College of Medicine will take a four-year medical program which is divided into four phases. This follows the two-year pre-medical program detailed under Admission in this section of the *Calendar.*

FIRST MEDICAL YEAR - PHASE A (33 weeks)

ANAT 232 (Cell Biology and Histology) ANAT 234 (Introductory Neuroanatomy) ANAT 235 (Gross Anatomy and Embryology) BIOCH 204 (Medical Biochemistry) BIOCH 210 (Nutrition) INTDL 201 (CPR) INTDL 202 (The History of Medicine) INTDL 202 (The History of Medicine) INTDL 205 (Professional Skills A) MICRO 204 (Immunology) PHSIO 202 (Physiology)

SECOND MEDICAL YEAR - PHASE B

(33 weeks)
INTDL 303 (Interdepartmental Clinical Systems I)
INTDL 304 (Clinical Sciences I)
MICRO 303 (Microbiology and Infectious Disease I)
PATH 301 (General Pathology)
PATH 302 (Systemic Pathology)
PEDS 302 (Human Genetics)
PHCOL 301 (Pharmacology)

THIRD MEDICAL YEAR - PHASE C Term One Only

(15 weeks)

CH&EP 401 (Community Health and Epidemiology) INTDL 403 (Interdepartmental Clinical Systems II) INTDL 404 (Clinical Sciences II) INTDL 405 (Interdepartmental Clinical Linking Courses) MICRO 403 (Microbiology and Infectious Diseases II)

THIRD AND FOURTH MEDICAL YEAR - PHASE D

Term Two and Fourth Medical Year

(67 week Undergraduate Junior Rotating Internship)

ANAES 501 (Anaesthesiology) FAMED 503 (Family Medicine/Emergency) INTDL 502 (Elective) INTDL 503 (Post clerkship Selective) MED 505 (Medicine/Neurosciences) OB&GY 501 (Obstetrics and Gynecology) PEDS 501 (Pediatrics) PSIAT 501 (Psychiatry) SURG 501 (Surgery)

Before students can undertake this final year, they must be registered with the College of Physicians and Surgeons and have a Certificate of Registration (Undergraduate) on the Educational Register of the College of Physicians and Surgeons of Saskatchewan. (This applies to students in both the previous and revised curricula).

IMPORTANT DATES

August 24 - August 25 Orientation for first year

August 28 Classes begin for first, second and third

year December 8

Last day of classes for first, second and third year

December 11 - December 15 Examinations for first, second and third year January 3

Phase D registration for third year

February 19 - 24 Mid-Term break for first and second year April 27

Last day of classes for first year* and final year

May 11 Last day of classes for second year

April 30 - May 11* Examinations for first year

May 14 - May 25

Examinations for second year

May 14 - May 25 Community Experience for first year *Examinations for first year will end on May 11, followed by a compulsory Community experience.

PROMOTION AND GRADUATION

Promotion is dependent on the student's achieving a grade of at least 50% in every course of that phase and obtaining a weighted average of at least 60% for the phase. The student must also achieve a "pass" mark in the elective.

A student who fails to achieve promotion will be required to:

 Pass a supplemental examination(s) or do the remedial work and pass a supplemental examination(s) if he/she is unsatisfactory in any course(s) equivalent to 6 credit units or less;

• Repeat the phase or to discontinue if he/she is unsatisfactory in more than 6 credit units.

A student may be required to discontinue the study of Medicine for non-academic reasons such as health.

The M.D. degree with Distinction will be awarded to the student who obtains a weighted average of at least 75% in two of the first three medical phases, a weighted average of at least 75% in the final medical phase, and a cumulative weighted average of at least 75% over the four phases of the medical program.

The M.D. degree with Great Distinction will be awarded to the student who obtains a weighted average of at least 80% in two of the first three medical phases, a weighted average of at least 75% in the final medical phase, and a cumulative weighted average of at least 80% over the entire medical program.

These requirements are under review.

See the General Information section of the *Calendar* for a full explanation of the grading system and the literal descriptors associated with each grade category.

REQUIREMENTS FOR LICENSE TO PRACTICE

Students are reminded that a university degree in medicine does not in itself confer the right to practice medicine. This is granted only by the licensing body of the province in which one intends to practice. In Saskatchewan, the licensing body is the College of Physicians and Surgeons of Saskatchewan. Students in medicine should enrol prior to their first year with the Registrar, 211 4th Ave. S., Saskaton SK S7K 2L4.

The examinations of the Medical Council of Canada, all or in part, will be held separately from the university examinations at the end of the final year. On the completion of a minimum of two years of postgraduate training the student is then entitled to apply for registration in any province of Canada for license to practice on complying with provincial regulations including the payment of license fee. Licensure requirements vary from province to province.

Note: Licensure requirements in Canada are changing rapidly. Further information can be obtained from the College of Physicians and Surgeons.

For postgraduate training to meet the above requirements, graduates of Medicine of the University of Saskatchewan are required to take postgraduate training in a Canadian hospital approved for training by the Canadian Medical Association. If a non-Canadian hospital is selected, it must provide satisfactory postgraduate training and must be affiliated with an approved medical school (see current Directory, Council of Teaching Hospitals, published by the Association of American Medical Colleges).

MICROSCOPES AND INSTRUMENTS

Each student on registering for the first medical year must provide a microscope approved by the Professor of Anatomy.

In the first medical year, the following instruments will be required:

Stethoscope, Blood Pressure Cuff, Diagnostic Set (Auriscope and Ophthalmoscope), Reflex Hammer and Tuning Fork (128C). Department heads concerned will advise on types or models preferred.

BACHELOR OF SCIENCE IN MEDICINE PROGRAM

This program is designed to provide medical students with the opportunity to study some aspect of medical sciences in depth and to gain some experience in research.

Requirements for the degree can be met *either:*

• by spending one academic year in study and research, or

• by arranging a program of two consecutive summers of research and study.

ADMISSION

Any student admitted to the College of Medicine for study toward the M.D. degree who has a cumulative weighted average of 70% or higher is gualified to apply.

Admission to the program will depend on approval of a program of study by the B.Sc. (Med.) Education Committee.

Submissions regarding research proposals are approved before students are recruited to the program. Prospective students may work with faculty members (supervisors) in the preparation of the research proposal.

Projects approved by the B.Sc.(Med.) Committee will be posted and students will be invited to make application with the research supervisor by mid-January.

Formal admission to the program will be granted to successful candidates and students must register and pay fees before June of that year.

REQUIREMENTS FOR THE DEGREE

Satisfactory completion of the program entails:

• Completion of all requirements for the M.D. degree;

 A cumulative weighted average of 70% in Phases A-C of the undergraduate medical curriculum;

• Satisfactory completion of the required courses (CH&EP 390, 392, INTDL 390, 391, 392, 393 and 395) and of the research component of the B.Sc.(Med.) program.

The M.D. and B.Sc. (Med.) degrees will be awarded simultaneously. Further information may be obtained from the Dean of Medicine's office.

FEES, PAYMENT OF FEES, CANCELLATIONS AND REFUNDS, WITHDRAWALS AND COURSE CHANGES

See the General Information section of the *Calendar.*

COURSE DESCRIPTIONS

See the General Information section of the *Calendar* for an explanation of the format used in course descriptions.

ANAESTHESIA

The department participates in the teaching of: INTDL 303 (Interdepartmental Clinical Systems I), 403 (Interdepartmental Clinical Systems II), 405 (Interdepartmental Clinical Linking Courses) and PHCOL 301 (Pharmacology).

The department also offers extended electives to medical and dental students, interns and residents for primary teaching or to medical practitioners to refresh knowledge and upgrade clinical skills.

A fully accredited Royal College Program is conducted.

ANAES 501.2 Anaesthesiology PD(C) 2 weeks

This is a compulsory rotation for final year medical students with the terminal objective that the graduating student possess the technical expertise of ACLS with the knowledge required of a family practitioner to competently prepare and counsel patients for anaesthesia and surgery at a basic level. Students are taught perioperative management. This includes preoperative evaluation and optimization, adult, pediatric, obstetric and outpatient anaesthesia and monitoring, and postoperative care including recovery room, intensive care and pain management. Interactive seminars and rounds cover related material. Clinical exposure is provided at the Regina General Hospital and all three Saskatoon hospitals.

ANATOMY AND CELL BIOLOGY

ANAT 232.6 Cell Biology and Histology 1&2 PA

An introduction to cell biology from a medical perspective followed by a survey of tissue organization and systematic study of the normal arrangement of cells and tissues into organs and organ systems.

ANAT 234.3 Introductory Neuroanatomy 2 PA

Prerequisite(s): For Arts and Science students only: ANAT 202 or equivalent and

permission of the department. An introduction to the anatomy of the human brain and spinal cord through lectures, laboratory dissections, and clinical correlation tutorials.

ANAT 235.9 Gross Anatomy and Embryology 1&2 PA

Introduction to the basic human body plan, including a detailed study by regional dissections and related studies of human embryology, radiological and clinical anatomy.

OTHER COURSES

ANAT 200.3 Introduction to Cell Biology

ANAT 210.3 Basic Human Anatomy

ANAT 325.3 Advanced Human Cell Biology

ANAT 330.3 Developmental Biology ANAT 331.3 Methods in Cell and

Developmental Biology

ANAT 401.6 Undergraduate Research Project

ANAT 402.6 Honours Research Project

ANAT 404.3 Cellular Neurobiology

ANAT 405.3 Current Topics in Cell Biology

ANAT 490.0 Seminar

For details on these courses, see the College of Arts and Science section of the Calendar.

BIOCHEMISTRY

BIOCH 204.6

Medical Biochemistry 1&2 PA

Reviews the structure and function of biomolecules, organization and general principles of metabolism, production and utilization of energy, and replication and expression of genetic information. The use of biochemical knowledge in the investigation and management of human disease will be emphasized through a caseoriented approach.

Note: For students in Medicine only.

BIOCH 210.2 Nutrition

1 PA (10 weeks)

Selected topics in human nutrition. Issues to be discussed will deal with nutritional assessment techniques, eating behaviour, diet and physiological status, primary nutritional diseases, nutritional considerations in other diseases, and public health aspects of nutrition.

OTHER COURSES

BIOCH 200.3 Molecules of Life

BIOCH 211.3 Introductory Metabolism

BIOCH 212.3 Introductory Biochemical Techniques

BIOCH 220.3 Introductory Plant Biochemistry

BIOCH 230.3 Information Transfer - DNA to Proteins

BIOCH 310.3 Proteins and Enzymes

BIOCH 311.3 Introductory Molecular Biology

BIOCH 412.3 Protein Structure, Function and Engineering

BIOCH 420.3 Advanced Plant Biochemistry BIOCH 429.3 Enzymology

BIOCH 430.3 Cell Biochemistry

BIOCH 432.3 Lipid Metabolism

BIOCH 435.3 Intermediary Metabolism

BIOCH 436.3 Advanced Molecular Biology BIOCH 488.3 Research Approaches in Biochemistry

BIOCH 489.6 Extended Research Approaches in Biochemistry

BIOCH 490.0 Seminar

For details on these courses, see the College of Arts and Science section of the *Calendar*.

COMMUNITY HEALTH AND EPIDEMIOLOGY

The department participates in INTDL 204 (Life Cycles and Humanities), 303 (Interdepartmental Clinical Systems I), and 403 (Interdepartmental Clinical Systems II).

CH&EP 190.3

Northern Health Issues Prerequisite(s): Biology 30.

CH&EP 390.3 Research Methodology in Health Sciences I

CH&EP 392.3 Research Methodology in Health Sciences II

These form part of the B.Sc. (Med.) program. One of the above will be held each summer. Topics include design of clinical trials, experimental design, research statistics, evaluation of literature, ethics of experimentation, computer applications and research, scientific writing for publication and for grant application, writing and presentation of scientific papers.

CH&EP 401.6 Community Health and Epidemiology 1 PC (3S)

Provides a population perspective to health and the prevention and treatment of illness. It concentrates on the public health knowledge, skills and attitudes which all doctors will require in their professional careers. An understanding of epidemiology and biostatistics is essential for the evaluation of services, critical appraisal of the literature, and participation in research. Introduction to topics in the area of complementary medicine will also be included.

CH&EP 402.3 International Health 1 (3S)

Provides an introduction to international health within a framework of peoplecentered development and primary health care. The course links health and development issues that are common overseas and in Saskatchewan. Students are introduced to patterns of disease, the context in which they occur, and strategies and actions for enhancing well-being. Related aspects of gender, ecology, education, indigenous beliefs and practices, economic and political systems, and foreign aid are explored.

FAMILY MEDICINE

ELECTIVE

The department offers a four-week elective in Family Medicine.

FAMED 503.6 Family Medicine/Emergency PD (C) 6 weeks

Clerkship students will participate in a fourweek primary outpatient-based experience in a rural or remote area. The four principles of Family Medicine will be stressed. The Family Medicine clerkship will provide exposure to the full spectrum of early undifferentiated health problems commonly encountered in the community setting. Clerkship students will also have a two-week rotation in an Emergency Department.

INTERDEPARTMENTAL COURSES

INTDL 201.0 Cardio-Pulmonary Resuscitation PA

Provides a basic level of knowledge and skill in first aid and basic cardiac life support.

INTDL 202.1 The History of Medicine PA(1T)

Addresses the historical basis of medical science, the evolution of clinical medicine, the aspects of health care, including that in Canada and Saskatchewan. Instructional methods will include lectures, seminars, and tutorials.

INTDL 204.6 Life Cycle and Humanities PA

Examines the facts, principles, and concepts of normal physical and psychological growth, of development, and of aging. At each stage of the life cycle, common characteristics and adaptational problems are discussed.

INTDL 205.6 Professional Skills A PA

Provides medical students with the opportunity to develop a wide array of skills upon which they will build throughout their professional lives. The development of effective, appropriate and satisfactory relationships with patients is fundamental to the success of this course and all future clinical experience. Various associated skills will be introduced as well: information management and critical thinking, financial management, practice management, etc. The Community Experience is a compulsory part of this course.

INTDL 303.12 Interdepartmental Clinical Systems I PB

Provides an interdisciplinary approach to diseases involving the major organ systems. With input from clinical, diagnostic and basic science departments, students will learn the pathogenesis and pathophysiology of specific diseases, the signs and symptoms of patients presenting with these diseases, and the diagnostic and therapeutic principles required for patient management. The following body systems will be covered: Hematology/Oncology, Female Reproductive, Kidney and Male Genitourinary, Gastrointestinal, Cardiovascular, Respiratory and Endocrine.

INTDL 304.12 Clinical Sciences I PB (C)

Through direct student/patient interaction and small group tutorials, stresses the refinement of basic clinical skills, the physician/patient relationship, and will introduce diagnostic and therapeutic strategies. Interdepartmental course with rotations through the clinical departments of Medicine, Medical Imaging, Surgery and its subspecialties, Pediatrics and Obstetrics & Gynecology.

INTDL 390.6 Medical Student Research I

INTDL 392.6 Medical Student Research II

These form part of the B.Sc.(Med.) program. They comprise the first and second components of a supervised research project.

INTDL 391.3 Literature Review I

INTDL 393.3 Literature Review II

These form part of the B.Sc. (Med.) program. A guided reading program which will provide background knowledge for students research project.

INTDL 395.6

Undergraduate Thesis and Research Seminar Presentation

Forms part of the B.Sc. (Med.) program. Involves a preparation of a formal undergraduate research thesis based on research experience. The thesis will be presented to peers and faculty at a formal research seminar.

INTDL 403.6 Interdepartmental Clinical Systems II 1 PC

Provides an interdisciplinary approach to diseases involving the major organ systems. With input from clinical, diagnostic and basic science departments, students will learn the pathogenesis and pathophysiology of specific diseases, the signs and symptoms of patients presenting with these diseases, and the diagnostic and therapeutic principles required for patient management. The following body systems will be covered: Neurology, Dermatology and Rheumatology.

INTDL 404.6 Clinical Sciences II 1 PC (C)

Through direct student/patient interaction and small group tutorials, stresses the refinement of basic clinical skills, the physician/patient relationship, and will introduce diagnostic and therapeutic strategies. Interdepartmental course with rotations through the clinical departments of Geriatrics, Neurosciences, Psychiatry and Rehabilitation Medicine.

INTDL 405.6

Interdepartmental Clinical Linking Courses

1 PC (L)

Provides basic principles, concepts and knowledge necessary for clerkship training in the areas of Anaesthesia, Art of Medicine, Healthcare Ethics, Law and Medicine, Medical Imaging, Neonatology, Ophthalmology, Orthopedics and Otolaryngology.

INTDL 502.0

Elective PD (C) 12 weeks

A wide choice of electives by subject and location is allowed. This elective period allows students to broaden their medical education and to explore in-depth future career opportunities.

INTDL 503.0 Postclerkship Selective PD (4 weeks)

A wide selection of options by subject and location will be allowed within these courses. The selective period allows students to broaden their medical education or to explore in-depth future career or research areas. This selective will take place at the end of Phase D.

SPECIAL TOPICS

INTDL 398.3 1/2(3S) INDTDL 399.6 1&2(3S) INTDL 498.3 1/2(3S) INTDL 499.6 1&2(3S) *Note:* The courses above are offered occasionally by visiting faculty and in other special situations. Students interested in these courses should contact the department for more information.

MEDSP 598.3

MEDSP 599.6 Special topic courses that are offered by the various departments in the College of Medicine. These provide students with opportunities to study areas of special interest.

MEDICAL IMAGING

The department participates in INTDL 303 (Interdepartmental Clinical Systems I), 403 (Interdepartmental Clinical Systems II) and 304 (Clinical Sciences I).

The department offers a four-week elective in either Diagnostic Radiology, including CT scanning and Ultrasound, and MR, or Nuclear Medicine during the final medical year. The elective experience can be arranged in either Saskatoon or Regina.

MEDICINE

The department participates in INTDL 303 (Interdepartmental Clinical Systems I), 403 (Interdepartmental Clinical Systems II), 304 (Clinical Sciences I), 404 (Clinical Sciences II), 405 (Interdepartmental Clinical Linking Courses). and 500 (Clinical Neurosciences).

MED 505.12

Internal Medicine/Neurosciences PD (C) 12 weeks

A mandatory clinical rotation through various sections of the Department of Medicine (including Geriatrics and Neurosciences) designed to provide students with the opportunity to apply the knowledge and principles of General Internal Medicine in both hospital and outpatient settings. Operating under the close supervision of residents and attending staff, students will be responsible for the evaluation, investigation, treatment and on-going care of patients.

FOR DENTAL STUDENTS

Basic Internal Medicine

See College of Dentistry section of the *Calendar* on Diagnostic and Surgical Sciences.

MICROBIOLOGY AND IMMUNOLOGY

MICRO 204.2 Immunology 2 PA

Outlines the basic principles of immunology and the application of these principles to the understanding of infection and immunity, mechanisms of immune injury, and autoimmune disease.

MICRO 303.6 Microbiology and Infectious Diseases I 1&2 PB

Outlines the characteristics of microorganisms and emphasizes basic microbiologic principles. Incorporates both the etiologic approach to the teaching of medical microbiology and the systems approach to the teaching of infectious disease. Patient management problems stress the clinical approach to patients with infectious disease. Laboratory sessions emphasize the role of the laboratory in the diagnosis of infectious disease.

MICRO 403.3 Microbiology and Infectious Diseases II 1 PC

MICRO 303 and 403 cover the management of human infectious diseases, including diagnosis and treatment, and the underlying microbiological principles, using a largely case based format, with many small group sessions. The topics are scheduled over the available 1.5 years to complement the Systems approach to medical teaching.

OTHER COURSES

MICRO 214.3 Basic and Medical Microbiology Genetics and Physiology MICRO 308.3 Medical Bacteriology MICRO 309.3 Medical Virology MICRO 387.3 Microbial Genetic Systems (formerly 386) MICRO 390.3 Laboratory Aspects of Microbiology I (formerly 395) MICRO 391.3 Laboratory Aspects of Microbiology II (formerly 395) MICRO 416.3 Microbial Physiology (formerly 215) MICRO 417.3 Molecular Virology MICRO 421.3 Principles of Immunology MICRO 423.3 Immunopathogenesis of Microbial Infections MICRO 425.3 Molecular Basis of Microbial Pathogenesis

MICRO 216.3 Introductory Prokaryotic

MICRO 490.0 Seminar MICRO 491.6 Research Project in

Microbiology

For details on these courses, see the College of Arts and Science section of the *Calendar*.

OBSTETRICS, GYNECOLOGY AND REPRODUCTIVE SCIENCES

The department participates in IINTDL 204 (Life Cycles and Humanities), 303 (Interdepartmental Clinical Systems I), and 304 (Clinical Sciences I).

OB&GY 501.6 Obstetrics and Gynecology PD (6 weeks)

Provides final year medical students with direct clinical experience and participation in management of gynecologic and obstetric problems. The clinical teaching will take place in a teaching hospital affiliated with the University of Saskatchewan. Regular seminars, ward rounds, and departmental rounds will be used for teaching, as well as direct patient care, in both disciplines.

SUMMER RESEARCH PROJECTS

The department offers research which deals with clinical studies, basic research and clinical epidemiological projects. Funding is available through the Dean's Office.

Graduate courses are listed in the College of Graduate Studies and Research section of the *Calendar*.

OPHTHALMOLOGY

The department participates in INTDL 303 (Interdepartmental Clinical Systems I), 403 (Interdepartmental Clinical Systems II), 304 (Clinical Sciences I) and 405 (Interdepartmental Clinical Linking Courses).

The department offers an elective to the undergraduate junior interns.

PATHOLOGY

The department participates in INTDL 303 (Interdepartmental Clinical Systems I) and 403 (Interdepartmental Clinical Systems II).

PATH 301.6 **General Pathology** 1 PB

Lectures, gross and microscopic demonstrations, laboratory work, and seminars for second year dental and medical students, dealing with the general pathological conditions common to all systems of the body. An introduction to systemic pathology is also included.

PATH 302.6 Systemic Pathology 2 PB

Study of the pathogenetic mechanisms and pathology involved in clinical disease processes as applied to patient management.

PEDIATRICS

The Department participates in INTDL 303 (Interdepartmental Clinical Systems I), 403 (Interdepartmental Clinical Systems II), 304 (Clinical Sciences I) and 405 (Interdepartmental Linking Courses).

PEDS 302.3 **Human Genetics** 1&2 PB

Provides an applied clinical perspective of genetic disorders. Genetic diseases affecting humans, although diverse in their manifestations, share common etiology and subscribe to a few mechanisms of pathogenesis.

PEDS 501.6 Pediatrics PD (C) 6 weeks

A clinical rotation which is divided into segments such that students are exposed to the hospital care of the newborn, the young child, the older child, and to outpatient care. Special lectures are provided in all aspects of pediatric care.

PHARMACOLOGY

PHCOL 301.6 Pharmacology 1&2 PB

Students will learn the scientific rationale for the use of drugs. Lectures are followed by case based small group tutorials. The objective is to provide a sound knowledge of pharmacologic concepts and principles fundamental to the future application of drugs as a component of the therapeutic regimen.

OTHER COURSES

PHCOL 432.6 Special Studies in Pharmacology

For details on these courses, see the College of Arts and Science section of the Calendar

PHYSICAL MEDICINE AND REHABILITATION

The major clinical emphasis lies in the functional diagnosis and management of patients suffering from impairments, handicaps and long-term disabilities of the neuro-vascular-musculo-skeletal systems. and is presented by means of lectures, demonstrations and bedside teaching in the department, which are integrated with INTDL 303 (Interdepartmental Clinical Systems I), 403 (Interdepartmental Clinical Systems II) and 404 (Clinical Sciences II).

FLECTIVE

The department offers a four-week elective in Rehabilitation Medicine in the final medical year. Students are responsible for patient care on the ward and participate in outpatient clinics and weekly service rounds held by the teaching staff and members of the Physical Medicine and Rehabilitation Department.

SUMMER RESEARCH PROJECTS

The department offers research which deals with clinical studies, basic research and clinical epidemiological projects. Funding is available through the Dean's Office.

PHYSIOLOGY

PHSIO 202.9 Physiology PA

An introduction to the basis mechanisms underlying the functions of the major organs and organ systems in mammals and the ways that these functions are controlled and coordinated in the normal, healthy state

OTHER COURSES

PHSIO 212.6 Human Physiology PHSIO 334.6 Experimental Basis of Physiology PHSIO 336.3 Excitable Cells (formerly 335) PHSIO 337.3 Cellular Basis of Physiological Function (formerly 335) PHSIO 346.3 Cardiovascular Physiology PHSIO 347.3 Respiratory Physiology PHSIO 348.3 Endocrinology PHSIO 350.3 Integrative Neuroscience (formerly 349) PHSIO 432.6 Physiological Research PHSIO 433.6 Integrative and Environmental Physiology PHSIO 490.0 Seminars in Physiology For details on these courses, see the College of Arts and Science section of the Calendar. PSYCHIATRY

The department participates in INTDL 303 (Interdepartmental Clinical Systems I), 403 (Interdepartmental Clinical Systems II), 404 (Clinical Sciences II).

PSIAT 501.6 Psychiatry PD (C) 6 weeks

A Clinical Clerkship in which the student will gain experience with inpatient, outpatient, and emergency consultations. Students will be expected to take part in the night call rotation as well. There is a seminar series.

SURGERY

The department participates in INTDL 303 (Interdepartmental Clinical Systems I), 403 (Interdepartmental Clinical Systems II), 304 (Clinical Sciences I) and 405 (Interdepartmental Clinical Linking Courses).

SURG 501.8 Surgery PD (C) 8 weeks

An eight-week senior clerkship on the surgical wards. Experience will be gained in the clinical management of General Surgery patients. Students may spend four of their eight weeks working on other than General Surgery wards selective. Opportunities available are in Cardiovascular-Thoracic Surgery, Intensive Care, Neurosurgery, Orthopedics, Otolaryngology, Plastic Surgery and Urology. During the clerkship students undertake a responsible role in the care of patients, they gain operating room experience and participate in teaching rounds, seminars, lectures and out patient clinics.

ELECTIVE

A four-week elective course is offered in the final medical year. This may be undertaken in General Surgery, Cardiovascular-Thoracic Surgery, Otolaryngology, Orthopedics, Plastic Surgery or Urology. The format for this course is similar to that for the required Senior Clerkship in Surgery, allowing the student to pursue a particular field in greater depth or to survey an additional surgical discipline.

POSTGRADUATE MEDICAL TRAINING PROGRAMS

The following postgraduate training programs approved by the Royal College of Physicians and Surgeons of Canada and the College of Family Physicians of Canada are offered Anaesthesia Community Health and Epidemiology Family Medicine Family Medicine/Emergency Medicine Rural Family Medicine Internal Medicine General Cardiology Respiratory Rheumatology Medical Imaging Neurology Obstetrics and Gynecology Ophthalmology Pathology General Pediatrics

Neonatal/Perinatal Medicine Pediatric Neurology Psychiatry Physical Medicine and Rehabilitation Surgery General Neurosurgery Orthopedic For details, consult departmental offices or the Dean's Office, A204 Health Sciences Building.

CONTINUING MEDICAL EDUCATION AND PROFESSIONAL DEVELOPMENT

The primary function of Continuing Medical Education and Professional Development is to assist physicians in Saskatchewan in their efforts to provide the highest possible quality of patient care.

The major objective is to improve health and reduce illness for people who receive medical care in Saskatchewan. Activities include major conferences in Saskatoon and Regina for family physicians and specialists in urban and rural areas.

• District Medical Society educational programs for physicians in the rural and urban areas

 Enhancement and remedial education programs for physicians with practice deficiencies.

· The provision of audio-visual and print resources upon request

· Consultation services to individual physicians or groups of physicians in the development of more effective continuing medical education and professional development programs

• The evaluation of C.M.E.P.D. programs and provision of feedback of the results to the individuals or groups involved in the planning

• Encouragement of physicians to become involved daily in effective learning experiences

 The fostering of a good attitude towards lifelong learning among undergraduate and graduate students in the College of Medicine

The program is carried on in full cooperation with the College of Physicians and Surgeons, Saskatchewan Medical Association, College of Family Physicians, The Royal College of Physicians and Surgeons, Saskatchewan Health, and individual members of the profession.

Many regional and hospital conferences are offered jointly with the College of Nursing. These programs are supported by the Heart and Stroke Foundation of Saskatchewan; Canadian Cancer Society, Saskatchewan Division; Saskatchewan Cancer Agency; and Saskatchewan Health.

DIVISION OF ONCOLOGY

The Division participates in INTDL 303 (Interdepartmental Clinical Systems I). The Division of Oncology participates in a course in Oncology for the undergraduate medical class. This 10-hour lecture series given within the Systems course deals with all the general areas of Oncology.

ELECTIVE

The Cancer Clinic also offers an elective to students who may wish to spend a month, either in the Clinic as a whole, or in any of the specific areas of Radiation, Medical or Pediatric Oncology.

LIBRARY

The Health Sciences Library is the primary resource centre for the Colleges of Medicine, Dentistry, Nursing, and the School of Physical Therapy. Through

specific agreements it also provides library services to health care personnel throughout the province.

The collection forms part of the University Library system and consists of over 60,000 volumes and 1000 biomedical journal subscriptions. Two special collections are housed in the Health Sciences Library: the Baltzan Medical Canadiana Collection and the Brodie History of Medicine Collection.