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WALTER SISULU UNIVERSITY

FACULTY OF HEALTH SCIENCES

SCHOOL OF MEDICINE

THE CURRICULUM & ADMISSION CRITERIA

A PRESENTATION TO THE PORTFOLIO

COMMITTEE ON HEALTH

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THE CURRICULUM

1. BACKGROUND

The School of Medicine within the Faculty of Health Sciences is the youngest in South Africa and was inaugurated in 1985 as the 8th Medical School. The Founding Dean, in her inaugural address, gave two reasons why yet another Medical School in South Africa was justified. The first reason was that the existing Medical Schools did not graduate sufficient numbers of black doctors to make an impact in the country. The second was that the doctors that were produced were not appropriately trained to serve in both urban and rural areas of South Africa. The School of Medicine, therefore, aimed at not only producing more doctors but also at introducing health personnel education that is relevant to the needs of all the people of South Africa. The Motto: "Excellence through Relevance" was adopted. This is what led the Faculty to adopt a Problem-Based Learning and Community-Based Education in this university in 1992.

2. VISION OF THE FACULTY

The Faculty of Health Sciences will be the leader in Problem-Based Learning (PBL), Community-Based Education (CBE) and Community Partnerships in Africa, in order to improve the quality of life of all the people served.

3. MISSION OF THE FACULTY

The Faculty of Health Sciences is committed to excellence in Problem-Based Learning (PBL), Community-Based Education (CBE) and social responsiveness through the integration of community service into its learning programmes that involve innovative teaching and research, with special emphasis on Primary Health Care (PHC), and sustainable rural development in partnership with communities and service providers.

4. PRINCIPLES

- **Building partnerships between university, community and service providers that should guide teaching & learning, research and community engagement throughout the faculty**
- **Developing an appropriate recruitment and selection process that enables the faculty to recruit from communities with greatest need.** This process also:
 - looks at both academic performance and personal attributes of prospective students. It includes community members and health professionals in

service as members of the selection committee and thus members of the interviewing panels

- **Developing an appropriate curriculum that is based on the primary health care approach and guided by health and social needs.** This curriculum includes:
 - early clinical exposure
 - significant learning in the community
 - problem-based learning as a vehicle for community-based education & service
 - integration of basic sciences, clinical medicine and population medicine from 1st year to final year
 - student centredness and self-directed learning
- **Developing a student support programme that ensures access for success.** This programme includes:
 - a student mentoring programme, where senior students are mentors for junior students, staff members are mentors to needy students and community members are mentors to all students in the community
 - provision of financial assistance to almost all students coming from disadvantaged backgrounds with the help of the government bursary scheme
- **Recruiting and developing appropriate teaching staff that has passion for community engagement** including health professionals in the workplace (general/family practitioners, nurses, health promoters, social workers etc.), community health workers and community liaison officers. This initiative requires:
 - Training of academic staff across disciplines to be tutors/facilitators of small group learning within an integrated curriculum beyond their respective disciplines/specializations
 - Training of health professionals also as tutors/facilitators of small group learning centrally, in the skills laboratory and in the community
 - Recruitment of community health workers and community liaison officers to be teachers and mentors that guide students in the community
- **Developing an appropriate and expanded teaching and learning platform that will enable the faculty to admit more students and also enable teaching to take place mainly in secondary and primary health care settings rather than at tertiary hospitals.** In this regard, each Learning Complex, including a District Learning Complex (consisting of a district hospital(s) & associated community health centres and/or clinics), should have:

- a learning centre that has seminar/tutorial rooms with teaching equipment, a skills laboratory and a library with intra and internet facilities, in addition to patient care facilities.
 - accommodation for students and staff
- **Providing tangible, sustainable, integrated and comprehensive primary health care services that are based on relevance, equity, quality and cost effectiveness.** This can be achieved through:
- teaching and application of the biopsychosocial model throughout the teaching platform
 - exposing the students to community diagnosis that is followed by intervention projects, based on feasible and prioritized community needs
 - family attachment scheme that enables students to follow patients into their homes over a period of time
 - District hospital and community health centre visits by academic staff for teaching of students, capacity building to peripheral staff and service to the community.

5. VALUES

- **Academic freedom** in teaching and learning, research and community service.
- **Quality management** and integrity in teaching and learning, research and community service
- **Equity** in all activities of the faculty, be it in student matters, staff matters, patient care and community service in general.
- **Democratic governance** at all levels of management.
- **Student access for success** in all programmes within the faculty
- **Staff development and leadership capacity** for all faculty staff.
- **Batho pele principles** of good character, respect and humility in our daily activities.
- **Cost effectiveness** in handling institutional resources at all times.
- **Relevance and responsiveness** to the needs of those we serve, especially students and the community, as well as being cognizant of the global community

6. OVERALL PURPOSE OF THE PROGRAMME

The programme is designed to produce doctors who are equipped with the necessary professional knowledge, skills and attitudes to deal with the health care problems of the people of South Africa.

7. CRITICAL OUTCOMES

The programme is designed to produce doctors who:

- Are equipped with the necessary scientific and professional knowledge, skills and attitudes to deal with the health care problems of urban and rural communities, families and individuals in South Africa;
- Are motivated to work in both urban and rural primary health care settings in South Africa and who can find professional and personal satisfaction in such work;
- Are able and motivated to work in health care teams to the benefit of the people of this country;
- Are able to educate and motivate communities, families and individuals to take personal responsibility for their health;
- Can think critically and creatively to deal with the health care problems of communities, families and individuals and have the necessary knowledge and skills to do research appropriate to the needs of the community;
- Are equally committed to the prevention as to the management of illness and are capable of understanding health care problems in their biological, psychological and socio-economic context;
- Are self-directed and lifelong learners who will be able to adapt to changing circumstances in South Africa, keep up with developments in their profession and have the necessary motivation and background to acquire relevant specialized qualifications to fulfill the needs of the country and to advance their own careers;
- Exhibit high levels of ethical and administrative insight, skills and integrity; and
- Are more committed to the person than to the disease.

8. SPECIFIC OUTCOMES

On completion of the undergraduate medical education and training programme, the doctor must have knowledge, skills and attitude as outlined below.

Knowledge outcomes

The programme must produce a doctor who has essential knowledge that is necessary for medical practice, including knowledge of:

- Basic sciences as a foundation for clinical medicine.
- Psychological, social, environmental, spiritual and cultural factors that contribute to illness and disease of individuals, families and communities.
- Principles of health promotion and disease prevention.
- A clinical reasoning process that leads to problem solving.
- Pathophysiology of common problems encountered in medical practice.
- How to make a comprehensive assessment based on illness and disease.
- How to make a comprehensive and shared management plan, which includes:
 - Management of presenting problems.
 - Management of ongoing chronic problems including rehabilitation
 - Modification of help-seeking behaviour of patients, families and communities.
 - Opportunistic health promotion
- The principles of rational therapeutics.
- Rational use and ordering of basic and special investigations.
- Common problems encountered in health care.
- Health care problems encountered in primary, secondary and tertiary health care.
- Epidemiology and biostatistics.
- Health service management and administration.
- Ethical issues relevant to medical practice.

Skills outcomes

The programme must produce a doctor who has essential skills that are required for medical practice, including the following:

- **Communication skills including:**
 - Language skills
 - Computer skills
 - Interviewing skills
 - Writing skills
 - Referral skills
 - Team-work
- **Clinical skills including:**
 - History taking
 - Performance of a physical examination
 - Assessment of a patients' mental state
 - Performance of side room tests and procedures
 - Interpretation of findings
 - Making a comprehensive assessment based on illness and disease
 - Formulation of a comprehensive and shared management plan
 - Counseling skills including basic counseling and counseling of a patient for HIV and AIDS.

▪ **Attitudinal outcomes**

The programme must produce a doctor who has an appropriate attitude for medical practice, such as the following:

- Commitment to the person rather than disease or special technique.

- Awareness of the subjective aspects of medicine, that is, sensitivity to feelings, thoughts and expectations of patients and also awareness of own values, attitudes and feelings.
- Ability to listen actively with empathy in order to appreciate the purpose and intentions of patients.
- Ability to build trust through being worthy of trust.
- Ability to negotiate agreements that honestly reflect interests of both doctor and patient.
- Respect for cultural diversity and patients' beliefs.
- Positive approach towards primary health care and community-based education and service.
- Understanding the basis of medical ethics.
- Understanding the general code of conduct of a doctor towards patients
- Appreciation of health as a human right.
- Understanding the doctors' responsibilities towards his colleagues and other members of the health care team.

9. CONTENT

The content focuses on the national health issues and is therefore relevant to the needs of the community. It consists of core curriculum and electives. The work covered in this training programme is as shown in table 1 below.

Table 1: Work covered in the undergraduate medical education & training programme

PHASE I				PHASE II		PHASE III		
Phase I(a) Year I (Level I)		Phase I(b) Year 2 (Level II)		Year 3 (Level III)		Phase 3(a) Year 4 (Level IV)	Phase 3(b) Year 5 (Level V)	Phase 3 (c) Year 6 (Level VI)
Sem.1	Sem.2	Sem.1	Sem.2	Sem.1	Sem.2	Sem.1 & 2)	Sem.1 & 2	Sem 1 & 2
Medical Biology	Nutrition, GIT, & Metabolism	Renal, Body Fluids, Reproductive System	Neuroscience, Head & Neck, Eye, Ear, Nose & Throat	Man, Environment, Stress, Adaptation & Disease	Gastro Intestinal Tract and urogenital system	-	-	Electives 4w
Medical Chemistry	Cell Biology & Cell Metabolism	Cardio Respiratory System	Musculoskeletal System	Disorders of Growth, Cardiovascular & Respiratory system	Central Nervous System and endocrine system	Internal Medicine 6w	Adult Medicine 8w	Internal Medicine 6w
Medical Physics				Disorders of Alimentary System & of Genitourinary Tract	Musculoskeletal system and trauma	Obst. & Gynae 6w	Marternity 8w	Obst. & Gynae 6w
Human Behavioural Science & Medical Ethics	Clinical Communication Skills	Clinical Skills	Clinical Skills	Neuro-endocrine, Skin & Musculoskeletal Disorders	Clinical Skills	Paeds & Child Health 6w	Child Health 8w	Paeds & Child Health 6w
General Communication Skills				Forensic Med	Community Med	Psychiatry 5w	Surgery 8w	Psychiatry 6w
	COBES 2w		COBES 3w	Community Med Clinical Skills	COBES 3w	General Surgery & Radiology 6w	COBES 8w	Family Medicine 6w
			COBES 4w	Clinical Skills		Surgical Specialities 12w		General Surgery & Radiology 6w
				COBES 4w		Community Med 2w		
						Forensic Med 2w		

COBES = Community-Based Education & Service
W = Weeks
Year 5 = Integrated Longitudinal Community Clerkship, where Adult Medicine includes Psychiatry, and Surgery includes Gynaecology & all other surgical specialities.

Because of the integrated nature of the curriculum, especially in Phase 1 and 11, modularization and semesterisation do not exactly apply. Course coding and credits is as shown in table 2 below.

Table 2: Course coding and credits for the integrated curriculum. The table shows the course code, course title, semester, and credits for each course. The courses are grouped into Phase I and Phase II.

Phase	Course Code	Course Title	Semester	Credits
Phase I	COMED 101	Computer Fundamentals	1st	3
	COMED 102	Computer Applications	1st	3
	COMED 103	Computer Networks	1st	3
	COMED 104	Computer Graphics	1st	3
	COMED 105	Computer Security	1st	3
	COMED 106	Computer Ethics	1st	3
	COMED 107	Computer Law	1st	3
	COMED 108	Computer History	1st	3
	COMED 109	Computer Future	1st	3
	COMED 110	Computer Trends	1st	3
Phase II	COMED 201	Advanced Computer Fundamentals	2nd	3
	COMED 202	Advanced Computer Applications	2nd	3
	COMED 203	Advanced Computer Networks	2nd	3
	COMED 204	Advanced Computer Graphics	2nd	3
	COMED 205	Advanced Computer Security	2nd	3
	COMED 206	Advanced Computer Ethics	2nd	3
	COMED 207	Advanced Computer Law	2nd	3
	COMED 208	Advanced Computer History	2nd	3
	COMED 209	Advanced Computer Future	2nd	3
	COMED 210	Advanced Computer Trends	2nd	3

Table 3: A table showing the relationship between the course code and the semester. It lists the course code and the corresponding semester for each course.

9. CONTENT ORGANISATION

9.1 Phases

The curriculum is organized into 3 phases as follows:

Phase I	:	level I & II (Phases Ia & Ib respectively)
Phase II	:	level III
Phase III	:	level IV, V & VI (Phase IIIa, IIIb & IIIc respectively)

9.2 Themes

The content in each phase is organized into 4 themes as follows:

Theme 1	:	normal structure and function
Theme 2	:	abnormal structure and function
Theme 3	:	population medicine
Theme 4	:	clinical practice

9.3 The Spiral Curriculum

All 4 themes are introduced at level 1 but in various degrees of depth. New information in the next level is introduced in such a way that there is a link with the information obtained from the previous level. Previous learnings, therefore, act as building blocks, as students “walk” their way through from Phase I to Phase III.

9.4 Integration

There is both horizontal and vertical integration in this curriculum. In horizontal integration, boundaries are broken between subjects that are normally taught at the same level of the curriculum. This means that subjects like anatomy and physiology are taught in an integrated fashion with resultant loss of the traditional departmental control over the curriculum. In vertical integration, boundaries are broken between subjects that are normally taught at different levels of the curriculum. This means that clinical sciences are taught with basic sciences at the beginning of the programme. The bulk of the basic sciences are, however,

covered at the earlier years of study, whilst the bulk of the clinical sciences are covered at the later years as illustrated in figure 1 below.

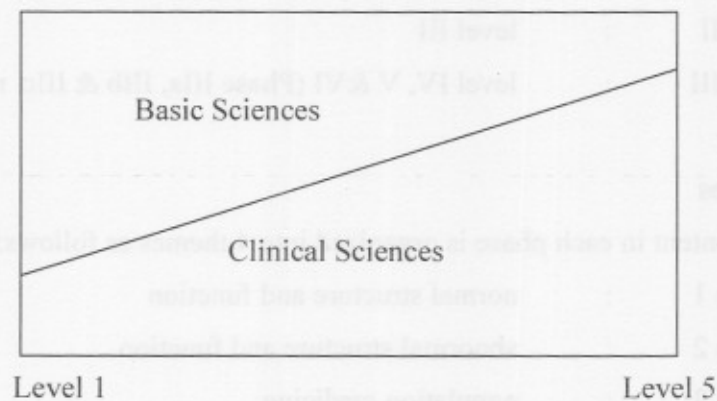


Figure 1: Wedge approach to vertical integration

The themes that deal mainly with basic sciences are normal structure and function, and abnormal structure and function.

Population Medicine includes mainly Behavioural Sciences, Medical Ethics and Community Medicine in Phase I and II, and is integrated into Clinical Practice in Phase III, especially under Family Medicine and Psychiatry. Medical Ethics is integrated in all Clinical Sciences.

Clinical Practice includes all the clinical sciences and is introduced in Phase I mainly as communication skills in clinical medicine and as paper cases in the tutorial process, also in Phase I. Clinicians teach first years in this curriculum.

Integration enables students to learn about all the aspects of the problem at the same time, and this introduces them to the holistic approach to medical practice. Integration encourages cooperation between departments and reduces duplication. This is in