

**COURSE CURRICULUM FOR FIRST PROFESSIONAL
BSRMS
(PRESCRIBED BY NCISM)**

Subject/Course:

grub pa lus

(Subject Code: SRUG-GL)

(Human Anatomy and Physiology)

**(Applicable from 2022-23 batch onwards for 5 years or until
further notification by NCISM, whichever is earlier)**



**BOARD OF UNANI, SIDHA AND SOWA-RIGPA
NATIONAL COMMISSION FOR INDIAN SYSTEM OF
MEDICINE**

NEW DELHI-110058



SOWA-RIGPA COURSE CURRICULUM & SYLLABUS

Session: First Professional B.S.R.M.S.

Subject/Course: *grub pa lus* (Human Anatomy and Physiology)

Subject Code: SRUG-GL

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Preface:

grub pa lus ('*grub pa*' literal meaning of formed or composed of, and '*lus*' meaning of human body) which here refers to the gross level of human body formed from the five elements and consciousness, does not refer to the subtle level of human body protectively composed of *rtsa rlung thegle*, understanding of which cannot be applied clinically.

Coverage: This course covers the phenomenon of human body from conception, existence to natural death. Beginning with the Summary of the Explanatory Tantra, it covers the grosser aspect of human body, including: 1. *lus changs tsul* (embryology), 2. *lus kyi 'dra dpe* (description of structures and functions of the human body through similes and metaphors), 3. *lus kyi gnas lugs* (structure and position of human body) including structures and applied anatomy mentioned in the chapters of *man ngag rgyud* (the Oral Instruction Tantra) dealing with treatments of exogenous wounds of the head and neck, torso and abdomens, and upper and lower extremities, 4. *lus kyi mtshan nyid* (body functions), 5. *lus kyi las dang dbye ba* (body classification and actions), and 6. *lus kyi 'jig ltas* (omens of imminent death). This course is also supplemented with modules of modern anatomy and physiology as the study of these two disciplines is backbone of allopathic medicine and becomes a must-learn-subject for all medical students.

Design: This course contains extensive non-lecture sessions —demonstrative teaching, clinical observation and practical. The introduction of non-lecture theory and practical to this course will be a milestone for the development of Sowa-Rigpa education system. As we all know: “we hear, we forget; we see, we remember, and we do, we learn.” Therefore, this course is designed to ensure that students cannot merely be a meditative listener rather physically be an active doer.

Significance: Zukhar Lodhoe Gyalpo, an eminent scholar of Sowa-Rigpa, born in 16th century, remarked importance of the study of anatomy and physiology for medical students, which are here paraphrased as follows: "Someone who does not know the structures and functions of channels, never understands the anatomy and physiology of the human body. Someone who does not know the human body physiologically as well as anatomically, never understands the nature of disease. Someone who does not know pathology, never knows how to implement therapeutic measures. Someone who does not know the therapeutic principles, eventually does not know anything about Sowa-Rigpa."

Goal: after enrolling in this course, students be able to describe formation and development of human body, all the structures and functions of human body, be able to identify muscles, bones and channels, therapeutic points, and finally be able to prognosticate clearly whether the patient will live or die by knowing the physiological changes that occur before death and during dying process. More precisely, learn the healthy status of the body and the mind, to know the unhealthy status of the body and the mind.

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SOWA-RIGPA COURSE CURRICULUM & SYLLABUS

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Subject/Course: *grub pa lus* (Human Anatomy and Physiology)

Subject Code: SRUG-GL

Summary

TEACHING HOURS DISTRIBUTION

Papers	Lecture hours (90 Hours)	Non-Lecture hours (190 Hours)	Total hours
Paper 1: <i>grub pa lus</i> (Human Anatomy)	45	28	73
Paper 2: <i>grub pa lus</i> (Human Physiology)	45	28	73
Practical	NA	134	134
Grand total			280

Examination (Papers & Mark Distribution)					
Item	Theory Component Marks	Practical Component Marks			
		Practical	Viva	Elective	Internal Assessment
Paper I	100	100	20	10 (Set-FA)*	20
Paper II	100				
Sub-Total	200	150			
Total marks	350				

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SOWA-RIGPA COURSE CURRICULUM & SYLLABUS

Table 1:- Course Code and Name of Course

Sl. No	Name of the subject		
	Subject Code	Subject	Equivalent Terms
2	SRUG-GL	<i>grub pa lus</i>	Human Anatomy and Physiology

Table 2 :- THEORY (CONTENTS, TERM AND DISTRIBUTION OF HOURS)

Paper 1: *grub pa lus* (Human Anatomy)

Chapters	Term (I/II/III)	Distribution of Hours
1. Summary of the Explanatory Tantra and Embryology བཤད་རྒྱུད་ཚོམ་ཚིག་དང་ལུས་ཚགས་རྒྱུ་	I	23
2. Simile and metaphors for body parts ལུས་ཀྱི་འདྲ་དཔེ།	II	10
3. Sowa-Rigpa Anatomy: Part One ལུས་ཚེད་ལུས་ཀྱི་གནས་ལུགས།	II	20
4. Sowa-Rigpa Anatomy: Part Two ལུས་ཀྱི་གནས་ལུགས།	III	20

Table 2 :- THEORY (CONTENTS, TERM AND DISTRIBUTION OF HOURS)

Paper 2: *grub pa lus* (Human Physiology)

Chapters	Term (I/II/III)	Distribution of Hours
Body constituents གནོད་བྱ་ལམས།	I	20
<i>Nyes pa</i> གནོད་བྱེད་ཉེས་པ།	II	30
Body classification and Omens of imminent death ལུས་ཀྱི་དབྱེ་བ་དང་འཇིག་རྟེན།	III	23

Table 3 :- A. THEORY (CONTENTS, TERM AND DISTRIBUTION OF HOURS)

Paper 1: grub pa lus (Human Anatomy)

Chapter/ Sub-headings	Lecture (L)/ Non- Lecture NL)	Teaching- Learning (TL) Methods	Distribution of hours	
			LH	NLH
Chapter 1: Summary of Explanatory Tantra and Embryology བཤད་པའི་རྒྱུད་ཀྱི་ཚོམ་ཚིག་དང་ལུས་ཀྱི་རྒྱུ་ K-Describe embryology S-Identify body parts using metaphors A-Realise the importance of embryology			23	
a) Causes for conception ལུས་ཀྱི་རྒྱུ་	L/NL	Lecture, Blended learning	5	3
b) Conditions for prenatal development འཕེལ་བའི་རྒྱུ་	L/NL	Lecture, AV aids, charts	7	3
c) Signs of birth བཙའ་བའི་རྟགས།	L/NL	Lecture, AV aids/ clinical exposure	3	2
Chapter 2: Similes and metaphors for body parts ལུས་ཀྱི་འདྲ་དཔེ། K-Describe similes and metaphors for body parts S-Identify body parts using metaphors A-Realise the importance of metaphors			10	
a) Description of the physical body through similes and metaphors ཕྱི་སྤང་པོ་འདྲ་བའི་དཔེ།	L/NL	Lecture, Blended learning, Project- based learning	3	1
b) Description of the internal organs through similes and metaphors ནང་དོན་ཚོམ་འདྲ་བའི་དཔེ།	L/NL	Lecture, Blended learning, Project- based learning	3	2
c) Description of vulnerable body parts through similes and metaphors གཉན་པ་གནད་ཀྱི་དཔེ་དོན།	L	Lecture	1	-
Chapter 3: Sowa-Rigpa Anatomy: Part One ལུས་ཀྱི་གནས་ལུགས། K-Understand and describe concept of Sowa-Rigpa Anatomy S-Identify the structures in Sowa-Rigpa Anatomy A-Value the importance of structures in Sowa-Rigpa Anatomy and their roles			20	
a) Required quantity of <i>nyes pa</i> ཉེས་པ་གསུམ་གྱི་ཕྱི་ཚད།	L/NL	Lecture, Projection	1	1

		based learning		
b) Required quantity of <i>lus zungs</i> (body constituents) ཇང་ཚད་ལུས་རྒྱུ་ལུགས།	L/NL	Lecture, Project based learning/discussion	10	8
Chapter 4: Sowa-Rigpa Anatomy: Part Two ལུས་ཀྱི་གནས་ལུགས། K-Understand and describe concept of Sowa-Rigpa Anatomy S-Identify the structures in Sowa-Rigpa Anatomy A-Value the importance of structures in Sowa-Rigpa Anatomy and their roles			20	
a) Structure of blood vessels and nerves འབྲེལ་པ་རྩ་ཡི་གནས་ལུགས།	L/NL	Lecture, Blended learning/Project-based learning	6	4
b) Structure of vulnerable body parts གཉན་པ་གནད་ཀྱི་གནས་ལུགས།	L/NL	Lecture, Blended learning/Project-based learning	5	3
c) Structures of orifices རྒྱ་ལམ་ལུ་གཤི་གནས་ལུགས།	L	Lecture	1	1
Total hours			45	28
Grand total of hours			73	

Table 3 :- THEORY (CONTENTS, TERM AND DISTRIBUTION OF HOURS)

Paper 2: grub pa lus (Human Physiology)

Chapter/ Sub-headings	Lecture (L)/ Non- Lecture (NL)	Teaching-Learning (TL) Methods	Distribution of hours	
			LH	NLH
Chapter 1: Body constituents གནོད་བྱ་ལམས། K- Describe body constituents S- Identify each of the body constituents A- Recognise the importance of the body constituents			20	
a) Definition of body ལུས་ཀྱི་ངོ་རྒྱུ་ཚིག།	L	Lecture	1	-
b) Classification of body constituents and excrements གནོད་བྱ་ལུ་འབྲེལ་བ།	L	Lecture	1	-
c) Functions of the body constituents and excrements གནོད་བྱ་ལུ་སྲི་ལས།	L/NL	Lecture, Team based learning	3	3

d) The digestive heat མེ་དྲོད།	L/NL	Lecture, Project based learning	3	4
e) Transformation of bodily constituents འགྲུར་ཚུལ།	L/NL	Lecture, Discussion	2	2
f) Transformation duration of bodily constituents འབྲས་བུ་རྩོགས་དུས།	L	Lecture	1	-
Chapter 2: nyes pa གནོད་ཕྱིན་ཉེས་པ། K- Discuss <i>nyes pa</i> S- Identify the location of <i>nyes pa</i> A- Value the importance of <i>nyes pa</i>			30	
a) Classification of <i>nyes pa</i> གནོད་ཕྱིན་ཉེས་པའི་དབྱེ་བ།	L	Lecture	5	-
b) Formation of <i>nyes pa</i> ; Body constitutions མངལ་དུ་གྲུབ་པའི་ཚུལ། རང་བཞིན་བདུན་དུ་འགྲུར་ཚུལ།	L/NL	Lecture, Blended learning	1	3
c) The characteristics of the digestive heat; Characteristics of the bowel movement མེ་དྲོད་འགྲུར་ཚུལ། རྩོད་པ་སྐྱོ།	L/NL	Lecture, Team based learning	1	2
d) Location of <i>nyes pa</i> གནོད་ཕྱིན་ཉེས་པའི་གནས་ས།	L/NL	Lecture, Inquiry based learning	2	3
e) Functions of <i>nyes pa</i> གནོད་ཕྱིན་ཉེས་པའི་ལས།	L/NL	Lecture, Project based learning	5	4
f) Characteristics of <i>nyes pa</i> ཉེས་པའི་མཚན་ཉིད།	L	Lecture	4	-
Chapter 3: Body classification and Omens of imminent death ལུས་ཀྱི་དབྱེ་བ་དང་འཛིག་ལྟས། K- Discuss the omens of the imminent death A- Value the importance of omens of imminent death			23	
a) Actions of the body ལུས་ཀྱི་ལས།	L	Lecture	4	-
b) Body classification ལུས་ཀྱི་དབྱེ་བ།	L/NL	Lecture, Edutainment /Kinesthetics learning	2	3
c) Distant signs རིང་བའི་ལྟས།	L	Lecture, Role play	5	2
d) Immediate signs ཉེ་བའི་ལྟས།	L/NL	Lecture, Early clinical exposure	3	2
e) Indefinite omens མ་དེས་པའི་ལྟས།	L	Lecture	1	-

f) Definite omens ངེས་པའི་འཆི་ལྷན་བཞུགས་པ།	L	Lecture	1	-
Total hours			45	28
Grand total of hours			73	

Table 3:- B PRACTICAL (NON-LECTURE)
grub pa lus (Human Anatomy and physiology)

Sl. No	Name of the practical	Term (I/II/III)	Distribution of Hours
A. grub pa lus (Human Anatomy)		67 Hours	
1	Identification of bones རྩ་གནད་ངོས་འཛིན།	I	3
2	Identification of muscles ཤ་གནད་ངོས་འཛིན།	I	3
3	Identification of ligaments and tendons རྩ་རྒྱས་ངོས་འཛིན།	I	2
4	Introduction to Human Anatomy- Part One Structure of: a) Human cells, tissues b) Skeletal system c) Muscular system	I	10
5	Identification of arteries, veins and nerves རྩ་གནད་ངོས་འཛིན།	II	6
6	Surface anatomy of visceral organs བྱང་ལོག་ཡུལ་ཐིག	II	8
7	Introduction to Human Anatomy- Part Two Structure of: a) Nervous system b) Sensory organs c) Cardiovascular system d) Respiratory system	II	10
8	Introduction of moxibustion points མེ་གསང་ངོ་སྟོང།	III	5
9	Introduction of bloodletting points གདར་གསང་ངོ་སྟོང།	III	5
10	Introduction of surgical points བྱར་གསང་ངོ་སྟོང།	III	5
11	Introduction to Human Anatomy- Part Three Structure of a) Digestive system b) Excretory system c) Reproductive system d) Endocrine system	III	10
B. grub pa lus (Human Physiology)		67 Hours	
1	Assessment of the digestive heat	I	2
2	Assessment for the status of body constituents	I	4
3	Measurement of blood pressure through pulse reading	I	

4	Perform the muscle reflex under the supervision of the teacher	I	2
5	Measurement of pulse rate	I	2
6	A. Measurement of body temperature B. Measurement of blood pressure C. Calculation of Body Mass Index (BMI)	I	10
7	Functions of the vital organs (chart)	II	7
8	Functions of the vessel organs	II	8
9	the procedure of the three <i>me drod</i> (digestive heat)	II	5
10	Sowa-Rigpa urine examination	II	5
11	Demonstrate <i>me drod</i> under the supervision of the teacher	II	5
13	Demonstrate the peripheral nervous system	III	6
14	Examining the sensory functions	III	5
15	Perform the procedure Inspection of respiratory system	III	6
Grand total hours			134

Table 4. Assessment Summary

A. Number of papers and Marks Distribution

Sl.No.	Subject	Papers	Theory	Practical or Clinical Assessment					Grand Total
				Practical or clinical	Viva	Electives	IA	Total	
2.	<i>grub pa lus</i> (Human Anatomy and Physiology) Paper-1 & Paper-2	2	200	100	20	10 (Set-FA)*	20	150	350

B. Scheme of Assessment (formative and Summative)

SN	Professional Course	Duration of Professional Course		
		First Term (1-6 Months)	Second Term (7-12 Months)	Third Term (13-18 Months)
1	First	3 PA & First TT	3 PA & Second TT	3 PA & UE

PA: Periodical Assessment; TT: Term Test; UE: University Examinations

C. Calculation Method for Internal Assessment Marks (20 Marks)

Term	Periodical Assessment				Term Test	Term Assessment	
	A	B	C	D	E	F	G
	1 (20)	2 (20)	3 (20)	Average (A+B+C/3) (20)	Theory (MCQ + SAQ + LAQ) & Practical (Converted to 20)	Sub Total (40 marks)	Term Assessment (20 marks)
First						D+E	D+E/2
Second						D+E	D+E/2
Third					Nil	D	D
Final IA	Final Internal Assessment: Average of three Term Assessment marks as shown in 'G' column						

D. Evaluation Methods for Periodical Assessment

Sl. No.	Evaluation Method
1.	Practical /Clinical Performance
2.	Viva Voce / Multiple Choice Question (MCQ)/ Modified Essay Question (MEQ)/Structured Questions
3.	Open Book Test (Problem Based)
4.	Summary Writing (Research papers)
5.	Class Presentations
6.	Work Book Maintenance
7.	Problem Based Assignment
8.	Objective Structured Clinical Examination (OSCE), Objective Structured Practical Examination (OSPE), Mini Clinical Evaluation Exercise (Mini-CEX), Direct Observation Procedures (DOP), Case Based Discussion (CBD)
9.	Extra-curricular activities (Social work, Public awareness, Surveillance activities, Sports or other activities which may be decided by the department).
10.	Small Project (Individual or Group)
11.	Oral Test, etc.

E. Question Paper Pattern

I PROFESSIONAL BSRMS EXAMINATIONS < SRUG-GL >

Time: 3 Hours Maximum Marks: 100

INSTRUCTIONS: All questions compulsory

		Number of Questions	Marks per question	Total Marks
Q 1	Multiple Choice Questions (MCQ)	20	1	20
Q 2	Short answer questions (SAQ)	8	5	40
Q 3	Long answer questions (LAQ)	4	10	40
				100

F. Distribution of theory Exam and Question paper-Blue print

Paper 1: *grub pa lus* (Human Anatomy)

Sl. No	Chapters	Marks	Types of Questions “Yes”-can be asked “No”- should not be asked		
			MCQ (1 mark)	SAQ (5 marks)	LAQ (10 marks)
1	Summary of the Explanatory Tantra and Embryology བཤད་རྒྱུད་ལྗོངས་ཚིག་དང་ལུས་ཆགས་རྒྱུ།	30	Yes (5Nos)	Yes (3Nos)	Yes (1No)
2	Similes and metaphors for body parts ལུས་ཀྱི་འདྲ་དཔེ།	10	Yes (5Nos)	Yes (1No)	No
3	Sowa-Rigpa Anatomy: Part One ལུས་ཀྱི་གནས་ལུགས་ཟུང་ཚད།	25	Yes (5Nos)	Yes (2Nos)	Yes (1No)
4	Sowa-Rigpa Anatomy: Part Two ལུས་ཀྱི་གནས་ལུགས།	35	Yes (5Nos)	Yes (2Nos)	Yes (2Nos)
Total marks		100	20	40	40

Distribution of theory Exam and Question paper-Blue print

Paper 2: *grub pa lus* (Human Physiology)

Sl. No	Chapters	Marks	Types of Questions “Yes”-can be asked “No”- should not be asked		
			MCQ (1 mark)	SAQ (5 marks)	LAQ (10 marks)
1	Body constituents གནོད་བྱ་ལམས།	30	Yes (5Nos)	Yes (3Nos)	Ye (1No)
2	<i>Nyes pa</i> གནོད་བྱེད་ཉེས་པ།	40	Yes (5Nos)	Yes (3Nos)	Yes (2Nos)
3	Body constitutions and Omens of imminent death ལུས་ཀྱི་དབྱེ་བ་དང་འཇིག་རྣམས།	30	Yes (10Nos)	Yes (2Nos)	Yes (1No)
Total marks		100	20	40	40

G. Distribution of Practical Exam

S N	Heads			Marks
1.	Sl. No	Practical name	Marks	100
	1	Identification of bones/muscles/tendons and ligaments/nerves and blood vessels	30	
	2	Surface markings	40	
	3	Identification of therapeutic points	10	
	4	Introduction to Human Anatomy (Identification of specimen/ spotter /models etc.,)	10	
	5	Introduction of Physiology A. Measurement of body temperature B. Measurement of blood pressure C. Calculation of Body Mass Index (BMI)	10	
	Total marks			
2.	Viva			20
3.	Internal Assessment			20
4.	Electives			10
Total				150

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