COMPETENCY BASED DYNAMIC CURRICULUM
for
THIRD PROFESSIONAL B.S.R.M.S.
(PRESCRIBED BY NCISM)

Subject/Course:

ཞིབ་འཇུག་གི་ཐབས་ལམ་དང་བསྡུར་རྩིས།

Zhib 'jug thabs lam dang bsdur rtsis

Subject Code: SRUG-ZD

RESEARCH METHODOLOGY AND
MEDICAL STATISTICS

(Applicable from 2022-23 batch, from the academic year 2025-26 onwards for 5 batches or until further notification by NCISM, whichever is earlier)

ncism
प्राणाभिसरः प्राणायतनानाम्

BOARD OF UNANI, SIDDHA & SOWA-RIGPA
NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE
NEW DELHI-110026

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Preface

The subject of **Research Methodology and Medical Statistic** has been newly introduced into the Bachelor of Sowa-Rigpa Medicine and Surgery (B.S.R.M.S.) undergraduate curriculum. Its primary goal is to cultivate a new generation of research-oriented Tibetan medicine scholars. While Tibetan medicine boasts a rich history dating back to the 8th century—with early anatomical dissections and foundational studies into body structure—it has evolved over the centuries through extensive observation in the nature and its surrounding, research into classical texts, medicinal compounds, and clinical applications.

Despite this legacy, the global landscape of scientific research has shifted significantly, now guided by international standards and rigorous methodologies. To ensure that traditional practitioners are equipped to meet these modern expectations, this course provides essential training in contemporary research principles, methodologies, and publication practices. It has been strategically incorporated into the third professional year of the B.S.R.M.S. program to foster a research culture early in students' academic development.

In today's scientific era, generating high-quality, evidence-based research is a pressing challenge for practitioners of traditional medicine. However, the long-standing efficacy of Tibetan medicine—from ancient practices like hot water therapy for indigestion to its more recent supportive role in the management of COVID-19—has drawn the attention of the global scientific community. As such, this course supports a critical shift from experience-based to evidence-based practice by integrating traditional knowledge with modern research frameworks.

Students will learn key aspects of the research process, including the definition and types of research, topic selection, literature review, data collection methods, research design, statistical analysis, presentation of findings, paper publication, and issues related to copyright, patents, intellectual property rights, and citation practices. Beyond lectures, students will also engage in group-based, practical training sessions focused on documentation and statistical tools.

The course spans 18 months and includes a total of 100 hours Teaching Learning session; 60 hours of classroom instruction and 40 hours of practical, non-lecture-based work—covering 22 core topics in research methodology and Medical Statistics.

By bridging the gap between Tibetan medicine's traditional wisdom and the standards of modern scientific research, this subject aims to foster integrated healthcare outcomes. Ultimately, it is expected to enhance global awareness of Tibetan medicine, stimulate research interest, and deliver meaningful health benefits to diverse populations across the world.

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SOWA-RIGPA COURSE CURRICULLUM & SYLLABUS

THIRD PROFESSIONAL
B.S.R.M.S.

Subject Code: SRUG-ZD

RESEARCH METHODOLOGY AND MEDICAL-STATISTICS

Summary

Papers	Lecture Hours	Non-Lecture Hours	Total Teaching Hours
One	60	40	100
Practical	-	-	-
Grand Total			**100**

Examination (Papers & Mark Distribution)					
Item	**Theory Component Marks**	**Practical Component Marks**			
		Practical	**Viva**	**Elective**	**IA**
Paper-I	**100**	-	30	-	20
Sub-Total	**50**	50			
Total Marks	**150**				

Important Note: - The User Manual III B.S.R.M.S. is a valuable resource that provides comprehensive details about the curriculum file. It will help you understand and implement the curriculum. Please read the User Manual III before reading this curriculum file. The curriculum file has been thoroughly reviewed and verified for accuracy. However, if you find any discrepancies, please note that the contents related to the MSE regulation, 2022 should be considered authentic.

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SOWA-RIGPA COURSE CURRICULLUM & SYLLABUS

Third Professional B.S.R.M.S.

Table-1: Course Code and Name of Course

Course code	Subject	Name of Course
SRUG-ZD	ཞིབ་འཇུག་གི་ཐབས་ལམ་དང་བསྡུར་རྩིས། *zhib 'jub thabs lam dang bsdur rstsis*	Research Methodology and Medical Statistics

Table-2: Theory (Contents, Terms and Distribution of Hours)

Chapter No.	Topics Section A: Research Methodology	Term (I/II/III)	Distribution of Hours
			Research Methodology 60 Hrs.
1	Introduction to Research	I	2
2	Historical Developments in Research	I	5
3	Types of Research	I	5
4	Literary Research	I	5
5	Experimental Research	I	3
6	The concept and Importance of Research Ethics	I	2
10	Clinical Research	II	11
11	Research Designs and Terminologies	II	10
12	Intellectual property right (IPR)/Patent/TKDL	II	2
16	Research Process	III	10
17	Research Critiquing	III	2
18	Introducing Different Research Database and Portals related to Sowa-Rigpa	III	3
Grand Total (Hrs.)		I/II/III	60

Chapter No.	Topics Section B: Medical Statistics	Term (I/II/III)	Distribution of Hours
			Medical Statistics 40 Hrs.
7	Introduction to Biostatistics	I	2
8	Common Statistical Terms and Notations	I	3
9	Collection of Data and Data Sampling	I	3
13	Presentation of Data	II	6
14	Measures of Central Tendency	II	5
15	Measures of Deviation/Dispersion/Variability	II	5
19	Probability	III	4
20	Hypothesis and Test of Hypothesis	III	5
21	Parametric and Non-Parametric Test	III	5
22	Introduction to Commonly used Statistical Software	III	2
Grand Total (Hrs.)		I/II/III	40

Table-3A: Theory (Lecture and Non-Lecture: Distribution of Hours)

Sr. No.	Research Methodology (Topics & Sub-topics)	Term (I/II/III)	Lecture Hours (LH)	Non-Lecture Hours (NLH)
At the end of the chapter/sub-chapter/section, the students should be able to				
1	**Introduction to Research** 1.1 Etymology, Definition and Synonyms of the word Research 1.2 Research in Sowa-Rigpa: Need, Scope and Importance 1.3 Concept of Evidence-Based Medicine	I	2	X
2	**Historical developments in research** 2.1 Historical Background of Modern Research. 2.2 Introduction to Evidences of Research in Sowa-Rigpa Classics.	I	3	2
3	**Types of Research** 3.1 Primary and Secondary 3.2 Basic (Pure) and Applied 3.3 Qualitative, Quantitative and Mixed 3.4 Observational and Interventional 3.5 Descriptive and Analytical 3.6 Other types of Research	I	3	2

4	**Literary Research** 4.1 Definition and Objectives 4.2 Methodology 4.3 Importance of Literature Review	I	3	2
5	**Experimental Research** 5.1 Definition and Characteristics 5.2 Types of Experimental Research	I	2	1
6	**The concept and Importance of Research Ethics** 6.1 Need and Significance 6.2 Institutional Animal Ethics Committee (IAEC) and Institutional Human Ethics Committee (IHEC/IEC)	I	1	1
10	**Clinical Research** 10.1 Types of Clinical Research 10.2. Testing Drugs in Humans-Phase I-IV 10.3 Study Design 10.4 Elements of the Clinical Trial Protocol	II	7	4
11	**Research Designs and Terminologies** 11.1 Case Reports 11.2 Case Series 11.3 Cross Sectional and Longitudinal 11.4 Cohort Studies 11.5 Case Control 11.6 Clinical Trials (Randomized Controlled Trials) 11.7 Advantages and Disadvantages of the Different Research Study Designs	II	7	3
12	**Intellectual property right (IPR)/Patent/ TKDL** 12.1 Definition and Importance 12.2 Types and Objectives	II	2	X
16	**Research process** 16.1 Selecting a research topic 16.2 Reviewing of the literature. 16.3 Formulating research hypothesis 16.4 Aims & Objectives Planning the Research 16.5 Materials and Methods 16.6 Conducting the Research (data collection, analysis and interpretation) 16.7 Drawing Conclusions. 16.8 Reporting of Research (Scientific writing) 16.9 Research Report such as CARE, CONSORT, IMRaD, FINER, MeSH, etc.	III	6	4
17	**Research Critiquing** 17.1 Definition and Significance	III	2	X

	17.2 Understanding the key aspects of research critique			
18	**Introducing different Research Database and Portals related to Sowa-Rigpa** 18.1 Database like PUBMED, AYUSH Research Portal, Research gate, Men-Tsee-Khang research site, Mentsee journal, SCOPUS, UGC CARE, JEBIM, etc.	III	2	1
			40	**20**

Sr. No.	Medical Statistics (Topics & Sub-topics)	Term (I/II/III)	Lecture Hours (LH)	Non-Lecture Hours (NLH)
7	**Introduction to Biostatistics** 7.1 Definition 7.2 Scope 7.3 Types (Descriptive & Inferential) 7.4. Importance of utilization of Medical Statistics in Sowa-Rigpa	I	2	X
8	**Common Statistical Terms and Notations** 8.1 Population 8.2 Sample 8.3 Data 8.4 Variable 8.5 Normal Distribution	I	1	2
9	**Collection of Data and Data Sampling** 9.1 Source of Data 9.2 Method of Data Collection 9.3 Data Sampling	I	1	2
13	**Presentation of Data** 13.1 Tabular 13.2 Graphical 13.3 Diagrammatical	II	2	4
14	**Measures of Central Tendency** 14.1 Percentile 14.2 Measures of Central Tendency (Average) • Mean • Median • Mode	II	1	4

15	**Measures of Deviation/Dispersion/Variability** 15.1 Range 15.2 Quartile Deviation 15.3 Mean Deviation 15.4 Standard Deviation 15.5 Variance and Co-efficient of Variation. 15.6 Standard Error 15.7 Qualities of Good Measure of Variability	II	3	2
19	**Probability** 19.1 Definition 19.2 Law of Probability 19.3 Theory of Probability	III	3	1
20	**Hypothesis and Test of Hypothesis** 20.1 Definition 20.2 Types 20.3 Significance 20.4 Errors	III	3	2
21	**Parametric and Non-Parametric Test** 21.1 Introduction 21.2 Parametric Test 21.3 Non-Parametric Test	III	3	2
22	**Introduction to Commonly Used Software** 22.1 Commonly Used Statistical Software 22.2 Application of Computer in Statistics 22.3 AI in Biostatistics	III	1	1

Table-3B: Theory (Lecture and Non-Lecture: Teaching Methods)

Chapter No.	Research Methodology (Topics & Sub-topics)	Lecture (L) / Non-Lecture (NL)	Teaching Learning Methods (TL)	Distribution of Hours	
				LH	NLH
1. Introduction to Research **K:** Define research and state its relevance in Sowa-Rigpa and evidence-based practice. **A:** Acknowledge the role of research in traditional medicine and develop a research-oriented mindset.					
	1.1 Etymology, Definition and Synonyms of the Word Research 1.2 Research in Sowa-Rigpa-its' Need, Scope and Importance 1.3 Concept of Evidence-Based Medicine	L	Lecture with PPT	2	X
2. Historical Developments in Research **K:** Recall key milestones in modern research and mention research elements from Sowa-Rigpa classics. **S:** Compare early research approaches in modern and Sowa-Rigpa system. **A:** Appreciate the scholarly depth of classical texts and respect traditional contributions to research thinking					

2.1 Historical background of modern research. 2.2 Introduction to evidences of research in Sowa-Rigpa classics.	L/NL	Lecture with PPT/Finding historical evidence of research in ancient Sowa-Rigpa literature by students: Student will be divided into two groups to find evidence of researches conducted before 12th Century (*bstanpa snga dar*) and after 12th century (*bstanpa phyi dar*) in Sowa-Rigpa classics. Each group will have to present their findings followed by group discussion.	3	2
3. Types of Research **K:** List major types of research and differentiate between them based on purpose, approach, and application. **S:** Classify given research scenarios into appropriate research types. **A:** Recognize the value of selecting suitable research types for effective inquiry and responsible knowledge generation.				
3.1 Primary and Secondary 3.2 Basic (Pure) and Applied 3.3 Qualitative, Quantitative and Mixed 3.4 Observational and Interventional 3.5 Descriptive and Analytical 3.6 Other types of Research	L/NL	Lecture with PPT/A set of research papers with short descriptions of various studies on Sowa-Rigpa are given to the students. Student will be asked to classify the research study which may be either primary, secondary, descriptive, basic, applied and translational research. The teacher may entertain a class discussion to clarify any doubts from the students.	3	2
4. Literary Research **K:** Define literary research and state its objectives and methods. **S:** Demonstrate steps to conduct a literature review in a given topic. **A:** Realize the significance of literature review in building research perspective and ensuring academic integrity.				
4.1 Definition and Objectives 4.2 Methodology 4.3 Important of Literature review	L/NL	Lecture with PPT/Group project: Student will be assigned to collect data or to review on the following topics. • Literary research conducted in pre-buddhist era. • Sowa-Rigpa Manuscripts • Literary research in Sorig *tengyur* • Literary review on Sowa-Rigpa classical texts translated in foreign languages. • Data collection on Sorig	3	2

		Scholar's *sung'bum* (Classical texts).		
5. Experimental Research **K:** Describe experimental research and distinguish its major types. **S:** Identify characteristics of experimental design in sample research studies. **A:** Value the role of controlled experimentation in generating reliable scientific evidence.				
5.1 Definition and Characteristics 5.2 Types of Experimental research	L/NL	Lecture with PPT/Each student will be assigned to present one experimental research done in OPD/IPD/ Pharmacy and external therapy.	2	1
6. The concept and Importance of Research Ethics **K:** State the need for research ethics and describe the roles of IAEC and IHEC/IEC. **S:** Identify ethical considerations in studies involving human or animal participants. **A:** Commit to conducting research with integrity, compassion, and regulatory compliance.				
6.1 Need and significance 6.2 Institutional Animal Ethics Committee (IAEC) and Institutional Human Ethics Committee (IHEC/IEC)	L/NL	Lecture with PPT/Divide student into small group and ask them to discuss the ethical challenges, role of IHEC/ IEC in addressing the ethical issue and decide whether the proposed research project should be approved or not considering the ethical principles they learned.	1	1
10. Clinical Research **K:** List phases of clinical trials and types of clinical research. **S:** Outline elements of a clinical trial protocol using standard formats. **A:** Commit to ethical principles while participating in clinical research.				
10.1 Types of Clinical Research 10.2 Testing Drugs in Humans (Phases I-IV) 10.3 Study Design 10.4 Elements of the Clinical Trial Protocol	L/NL	Lecture with PPT/Activity: Student will be given task to collect data on Sowa-Rigpa clinical research. Each student will be assigned to present a simple study design and trial protocol on Sowa-Rigpa treatment on one disease	7	4
11. Research Designs and Terminologies **K:** Compare various research designs and identify their strengths and limitations. **S:** Classify research cases using appropriate design terminology. **A:** Value the appropriate use of study design in scientific research.				
11.1 Case Reports 11.2 Case Series 11.3 Cross Sectional and Longitudinal 11.4 Cohort Studies 11.5 Case Control	L/NL	Lecture with PPT/Activity: Assign students to collect data on Sowa-Rigpa case reports and case series. 2 hours group activity: Students	7	3

11.6 Clinical Trials (Randomized Controlled Trials) 11.7 Advantages and Disadvantages of the Different Research Study Designs		will be asked to create a list of clinical questions that could be investigated via randomized control studies. Divide students into small group and each group is assigned a clinical question and tasked with designing an RCT to answer it.		
12. Intellectual property right (IPR)/Patent/TKDL **K:** Define IPR, its types and objectives.				
12.1 Definition and Importance 12.2 Types and Objectives	L	Lecture with PPT	2	X
16. Research Process **K:** Describe each step of the research process from topic selection to reporting. **S:** Draft a basic research plan including hypothesis, methods, and objectives. **A:** Adopt a systematic and ethical approach to conducting research.				
16.1 Selecting a research topic 16.2 Reviewing of the literature. 16.3 Formulating research hypothesis 16.4 Aims & Objectives 16.5 Materials and Methods 16.6 Conducting the Research (data collection, analysis and interpretation) 16.7 Drawing Conclusions. 16.8 Reporting of Research (Scientific writing) 16.9 Research report such as CARE, CONSORT, IMRaD, FINER, MeSH, STROBE, etc.	L/NL	Lecture with PPT/ Activity: • 2 hrs of activity on selecting research topic and literature review. Student will be divided into 2-3 small groups and they will brainstorm on the relevant research topics such as *skyabab, glo-gcong, cham-rims* diseases and also about the aims and objectives of the specific research topic they have selected. Student will be then asked to find and review relevant literature / articles on their selected research topic using online databases and discuss how this literature review informs their own research work and solve research problem. • 2 hrs activity on finding Materials, Methodology and research report: Based on their selected research study, student will choose the research type and appropriate techniques such as pulse and urine diagnosis and other tools, instruments, data resource and software required for the study. Teacher may assist them to identify their target population, sample size and sampling method and then ask them to select the statistical analysis techniques they	6	4

		will use to interpret their data. Teacher may also introduce the different reporting guidelines such as STROBE for observational studies and CARE for case reports. Analyse and interpret the data draw conclusion. Finally, student will be asked to prepare a full report on their selected research study.		
17. Research Critiquing **K:** Define research critique and its purpose.				
17.1 Definition and Significance 17.2 Understanding the key aspects of research critique	L	Lecture with PPT	2	X
18. Introduction to different Research Database and Portals related to Sowa-Rigpa **K:** List major research databases relevant to Sowa-Rigpa. **S:** Search for articles using research databases and portals. **A:** Recognize the importance of accessing reliable research sources.				
18.1. Database like PUBMED, AYUSH Research Portal, Research gate, Men-Tsee-Khang research site, Mentsee journal, Bod Rigpa, CCTM Journal, SCOPUS, UGC CARE, JEBIM, etc.	L/NL	Lecture with PPT/Each Student will be assigned to search one or two Sowa-Rigpa research study from the research database and portals like PUBMED, etc. Then each student has to present summary or findings of that research topic.	2	1

Chapter No.	Medical Statistics (Topics & Sub-topics)	Lecture (L) / Non-Lecture (NL)	Teaching Learning Methods (TL)	Distribution of Hours	
				L	NL
7. Introduction to Biostatistics **K:** Define Biostatistics and list its types and scope. **S:** Identify situations where descriptive or inferential statistics are applicable. **A:** Recognize the importance of statistics in evidence-based Sowa-Rigpa practice.					
7.1 Definition 7.2 Scope 7.3 Types (Descriptive & Inferential) 7.4 Importance of utilization of medical statistics in Sowa-Rigpa		L	Lecture with PPT	2	X
8. Common Statistical Terms and Notations **K:** Recall key statistical terms such as population, sample, and variables. **S:** Distinguish between data types and interpret normal distribution. **A:** Appreciate clarity and precision in using statistical terminology.					

8.1 Population 8.2 Sample 8.3 Data 8.4 Variable 8.5 Normal Distribution	L/NL	Lecture with PPT/Students will be given hands on training and task to create statistical classifications on the data provided. Teachers may demonstrate or assist them on each statistical type, etc.	1	2
9. Collection of Data and Data Sampling **K:** Describe sources and methods of data collection and sampling. **S:** Demonstrate steps to collect data and apply basic sampling techniques. **A:** Acknowledge the importance of ethical and systematic data collection.				
9.1 Source of Data 9.2 Method of Data Collection 9.3 Data Sampling	L/NL	Lecture with PPT/ Demonstration: The teacher elaborates on practical aspects of data collection methods using various patient scenarios. Hands on training given to the student. The teacher then concludes and summarizes the key aspects of data collection and their applicability in different scenarios.	1	2
13. Presentation of Data **K:** List methods of data presentation: tables, graphs, and diagrams. **S:** Construct simple tables, charts, and diagrams for given data. **A:** Appreciate the role of visual tools in effective communication of findings				
13.1 Tabular 13.2 Graphical 13.3 Diagrammatical	L/NL	Lecture with PPT/Demonstration: Teacher will demonstrate the practical aspects of Tabular, Graphical and Diagrammatical chart. Based on a research data, hands on training will be given to students and asked them to present a data in Tabular, Graphical and Diagrammatical chart.	2	4
14. Measures of Central Tendency **K:** Define mean, median, mode, and percentile. **S:** Calculate central tendency values for sample data. **A:** Recognize the value of summarizing data through averages.				
14.1 Percentile 14.2 Measures of central Tendency (Average) • Mean • Median • Mode	L/NL	Lecture with PPT/ Demonstration: Based on one Sowa-Rigpa research data, teacher will demonstrate how to calculate variance and coefficient variation from the given data.	1	4

		Hands on training: The students will be provided with 3 or 4 data sets to calculate variance and coefficient variation from the data. Conclusion and summarization: The teacher will discuss the data sets and explain variance and coefficient of variation and their applicability and furthermore, the teacher will elaborate on good measures of dispersion.		
15. Measures of Deviation/ Dispersion/ Variability **K:** List types of statistical variability and their formulas. **S:** Compute standard deviation, variance, and related measures. **A:** Acknowledge variability as a key to interpreting research data.				
15.1 Range 15.2 Quartile deviation 15.3 Mean deviation 15.4 Standard deviation 15.5 Variance and Co-efficient of Variation. 15.6 Standard error 15.7 Qualities of good measure of variability	L/NL	Lecture with PPT/ Demonstration: Using one specific Sowa-Rigpa research data, the teacher will demonstrate how to calculate range, mean deviation and standard deviation from the given data. Hands on training: Student will be given some other data to calculate the Range, Mean Deviation and the standard deviation from the data. Teacher and student will then engage in discussion on difference between range, mean deviation and standard deviation.	3	2
19. Probability **K:** Define probability and its basic laws. **S:** Apply basic probability rules to medical scenarios. **A:** Value probability as a basis for statistical inference.				
19.1 Definition 19.2 Law of Probability 19.3 Theory of Probability	L/NL	Lecture with PPT/Demonstration: Teacher will demonstrate the normal distribution curve and its variations like skewness and kurtosis, using different data. Demonstration on probability based on the normal distribution. Hands on training: Students will be given tabulated data to develop	3	1

		normal distribution curves. Then they conduct probability predictions from the curve. Conclusion and summarization: The teacher will then entertain a group discussion on the findings and also help to clarify doubts of the students.		
20. Hypothesis and Test of Hypothesis **K:** Define hypothesis, its types, and significance. **S:** Differentiate between Type I and Type II errors in hypothesis testing. **A:** Respect the role of hypothesis testing in evidence generation.				
20.1 Definition 20.2 Types 20.3 Significance 20.4 Errors	L/NL	Lecture with PPT/Demonstration: Teacher will demonstrate systemic development of a hypothesis, the steps involved in testing a hypothesis using data from different scientific articles. Then divide students in 2-3 groups and they will be given hands on training to develop hypothesis, record the steps of hypothesis testing and present their data in class. Teacher and student then discuss on the hypotheses developed and concludes with significant points regarding the testing of the hypothesis.	3	2
21. Parametric and Non-Parametric Test **K:** Identify parametric and non-parametric test types. **S:** Choose appropriate statistical test for given data type. **A:** Acknowledge the role of test selection in valid research conclusions.				
21.1 Introduction 21.2 Parametric Test 21.3 Non-Parametric Test	L/NL	Lecture with PPT/Demonstration: Teacher will first demonstrate the difference between parametric and non-parametric tests and introduce various parametric and nonparametric tests. Hands-on-training will be given to student on the application of parametric and nonparametric tests and student will record their findings. The teacher and student then discuss and summarize with the major points regarding the applicability of parametric and nonparametric tests.	3	2

22. Introduction to Commonly used statistical software **K:** List commonly used statistical software. **S:** Demonstrate basic application of software for data analysis. **A:** Recognize the role of technology in improving research accuracy.				
22.1 Commonly used statistical software 22.2 Application of computer in statistics 22.3 AI in biostatistics	L/NL	Lecture with PPT/Demonstration of software: Teacher will introduce the various statistical software and its features and demonstrates any of them by performing some simple statistical tests. Students will be then assigned to perform various statistical software on their own on given data and allow them to understand its features and make a note on the procedures. Teacher and student will then discuss and concludes with major points regarding statistical software and their applicability.	1	1

Table-4: Assessment Summary

4A. Number of paper and Marks Distribution

Subject	Paper	Theory	Practical or Clinical Assessment					Grand Total
			Practical or clinical	Viva	Electives	IA	Total	
zhib 'jub thabs lam dang bsdur rstsis Research Methodology & Medical Statistics	1	100	-	30	-	20	50	**150**

4B. Scheme of Assessment (Formative and Summative)

Sr.No.	Professional Course	Formative Assessment			Summative Assessment
		First Term (1-6Months)	Second Term (7-12 Months)	Third Term (13-18 Months)	
1	Third	3PA & First TT	3PA & Second TT	3PA	UE**
PA: Periodic Assessment; TT: Term Test; UE: University Examination. **University exam should be conducted on entire syllabus.					

4C.Term Wise contents for Periodic Assessments

ITEM	PAPER-I (Topic & Sub-topics)	ASSESSMENT METHODS
PA 1	1-2	Class presentation, MCQ quiz, Group assignment, etc.
PA 2	3-4	Problem-based assignment, small project, etc.
PA 3	5-9	MCQ quiz, class presentation, small project, work book maintenance, extra-curricular activities incl. library attendance, etc.
Term Test 1	1-9	MCQ, SAQ & LAQ as per the theory exam pattern & Viva voce
PA 4	10	Summary writing (Scientific writing), Class presentation, small group project, etc.
PA 5	11-12	MCQ quiz, problem-based assignment, group project, etc.
PA 6	13-15	Work book maintenance, class presentation, extra-curricular activities incl. library attendance, etc.
Term Test 2	10-15	MCQ, SAQ & LAQ as per the theory exam pattern & Viva voce
PA 7	16	Summary writing (Scientific writing), class presentation, small group project, etc.
PA 8	17-20	Problem-based assignment, small project, etc.
PA 9	21-22	Small project, MCQ quiz, work book maintenance, extra-curricular activities incl. library attendance, etc.
University Examination	1-22	MCQ, SAQ & LAQ as per the theory exam pattern & Viva Voce.

4D. 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**						

4E. Evaluation Methods for Periodical Assessment

Sr. No.	Evaluation Methods
1	Practical / Clinical Performance
2	Viva Voce, MCQs, MEQ (Modified Essay Questions/ Structured Questions)
3	Open Book Test (Problem Based)
4	Summary Writing (Sowa-Rigpa Research Papers)
5	Class Presentations based on the related subject
6	Problem Based Assignment
7	Objective Structured Clinical Examination (OSCE), Objective Structured Practical Examination (OPSE), Mini Clinical Evaluation Exercise (Mini-CEX), Direct Observation of Procedures (DOP), Case Based Discussion (CBD)
8	Extra-curricular Activities, (Social Work, Public Awareness, Surveillance Activities, Sports or Other Activities which may be decided by the department).
9	Small Project based on the related subject.
10	Work Book Maintenance

4F. Question Paper Pattern

THIRD PROFESSIONAL B.S.R.M.S. EXAMINATIONS

SRUG-ZD

Time: 3 Hours Maximum Marks: 100 Instructions: All questions compulsory

Section	Question Paper Pattern	Number of Questions	Marks per Question	Total Marks
A	Multiple Choice Questions (MCQ)	RM 10	1	10
		BS 10	1	10
B	Short Answer Questions (SAQ)	RM 4	5	20
		BS 4	5	20
C	Long Answer Questions (LAQ)	RM 3	10	30
		BS 1	10	10
Total no. of questions		**32**		**100 (RM 60 + BS 40)**

4G. Distribution of theory Exam and Question paper - Blue print

Chap. No.	Chapters of Research Methodology	Marks	Types of Questions "Yes"- can be asked "No"- should not be asked		
			MCQ (1 mark)	**SAQ (5 marks)**	**LAQ (10 marks)**
1	Introduction to Research	1	Yes (No.1)	No	No
2	Historical developments in research	6	Yes (No.1)	Yes (No.1)	No
3	Types of Research	6	Yes (No.1)	Yes (No.1)	No
4	Literary Research	6	Yes (No.1)	Yes (No.1)	No
5	Experimental Research	1	Yes (No.1)	No	No
6	The concept and Importance of Research Ethics	1	Yes (No.1)	No	No
10	Clinical Research	25	No	Yes (No.1)	Yes (No.1)
11	Research Designs and Terminologies		No		Yes (No.1)
12	Intellectual property right (IPR)/Patent/TKDL	1	Yes (No.1)	No	No

16	Research process	10	No	No	Yes (No.1)
17	Research critiquing	1	Yes (No.1)	No	No
18	Introduction to different Research Database and Portals related to Sowa-Rigpa	2	Yes (Nos.2)	No	No
Total marks		**60**	**10**	**20**	**30**

Chap. No.	**Chapters of Medical Statistics**	**Marks**	**Types of Questions "Yes"- can be asked "No"- should not be asked**		
			MCQ (1 mark)	**SAQ (5 marks)**	**LAQ (10 marks)**
7	Introduction to Biostatistics	1	Yes (No.1)	No	No
8	Common Statistical Terms and Notations	1	Yes (No.1)	No	No
9	Collection of Data and Data Sampling	6	Yes (No.1)	Yes (No.1)	No
13	Presentation of Data	16	No	No	Yes (No.1)
14	Measures of Central Tendency		Yes (No.1)	Yes (No.1)	
15	Measures of Deviation/ Dispersion/ Variability	5	No	Yes (No.1)	No
19	Probability	2	Yes (Nos.2)	No	No
20	Hypothesis and Test of Hypothesis	6	Yes (No.1)	Yes (No.1)	No
21	Parametric and Non-Parametric Test	2	Yes (Nos.2)	No	No
22	Introduction to commonly used statistical software	1	Yes (No.1)	No	No
Total marks		40	10	20	10

4H.Distribution of Practical Components: NA

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