

# SHIVAJI UNIVERSITY, KOLHAPUR



‘A<sup>++</sup>’ Accredited by NAAC (2021)

with CGPA 3.52

**Faculty of Interdisciplinary Studies Structure,  
Scheme and Syllabus for Bachelor of Vocation  
(B. Voc.)**

**NURSING**

**Part I- Sem. I & II**

**CBCS PATTERN**

**Syllabus to be implemented from**

(Subject to the modifications that will be made from time to time) Syllabus  
to be implemented from June, 2022 onwards.

**As Per National Education Policy 2020**

## SHIVAJI UNIVERSITY KOLHAPUR

### STRUCTURE AND SYLLABUS OF B.VOC.

#### Bachelor of Vocation (B.Voc.) – Nursing

<b>TITLE</b>	:	B.Voc. (Nursing) Syllabus ( Semester Pattern)
<b>YEAR OF IMPLEMENTATION:</b>		<b>Syllabus will be implemented from June, 2022</b>
<b>DURATION</b>	:	B. Voc. Part I, II and III ( ThreeYears) B. Voc. Part I - Diploma ( One Year ) B. Voc. Part II - Advanced Diploma ( Second Year) B. Voc. Part III – Degree ( ThirdYear)
<b>PATTERN OF EXAMINATION :</b>		Semester Pattern
<ul style="list-style-type: none"><li>• <b>Theory Examination</b></li><li>• <b>Practical Examination</b></li></ul>	-	At the end of semester as per Shivaji University Rules i) In the 1 <sup>st</sup> , 3 <sup>rd</sup> and 5 <sup>th</sup> semester of B.Voc. there will be internal assessment of practical record, related report submission and project reports at the end of semester ii) In the second semester of B. Voc. I, there will be internal practical examination at the end of semester iii) In the 4 <sup>th</sup> and 6 <sup>th</sup> semester of B. Voc. there will be external practical examination at the end of semester
<b>MEDIUM OF INSTRUCTION:</b>		English.
<b>STRUCTURE OF COURSE</b>	:	B. Voc. Part – I, II and III. Two Semester Per Year, Two General Papers per year / semester Three Vocational Papers per Year / Semester Three Practical papers per Year / Semester one Project/Industry Visit/Study Tour/Survey

## **SCHEME OF EXAMINATION:**

### **A) THEORY-**

- The theory examination shall be at the end of the each semester.
- All the general theory papers shall carry 40 marks and all vocational theory papers shall carry 50 marks.
- Evaluation of the performance of the students in theory shall be on the basis of semester examination as mentioned above.
- Question paper will be set in the view of entire syllabus preferably covering each unit of the syllabus.
- **Nature of question paper for Theory examination** (Excluding Business Communication Paper)
  - i) There will be seven questions carrying equal marks.
  - ii) Students will have to solve any five questions

Que. No. 1: Short answer type question with internal choice (Two out of Three)

Que. No. 2 to Que. No. 6: Long answer type questions.

Que. No. 7: Short Notes with internal choice (Two out of Three)

### **B) PRACTICALS:**

Evaluation of the performance of the students in practical shall be on the basis of semester examination ( Internal assessment at the end of Semester I, II and III and V and external examination at the end of Semester IV and VI as mentioned separately in each paper

### **Standard of Passing:**

As per the guidelines and rules for B. Voc. (Attached Separately – Annexure I)

### **Eligibility Criteria:**

1. The Eligibility for admission is 10+2 or equivalent, in Science stream from any recognized board or University.
2. The Candidates who have passed DMLT, D.Farm, GNM

Rayat Shikshan Sanstha's

Savitribai Phule Mahila Mahavidyalaya, Satara.

**B.Voc. in Nursing**

**Course Structure**

**B.Voc.I (Diploma) Semester-I**

Sr.No	Paper No	Title of the Paper	Theory/ Practical	Distribution of Marks		Total	Credits	
				Theory	Practical		Theory	Practical
1.	I	Business Communication-I	Theory and Practical	40	10	50	03	02
2.	II	Psychology -I	Theory and Practical	40	10	50	03	02
3.	III	Anatomy and Physiology -I	Theory	50	-	50	03	-
4.	IV	Biochemistry, Nutrition and Dietetics -I	Theory	50	-	50	03	-
5.	V	Microbiology and Pathology -I	Theory	50	-	50	03	-
6.	VI	Lab. Work- Anatomy and Physiology -I	Practical	-	50	50	-	03
7.	VII	Lab. Work- Biochemistry, Nutrition and Dietetics -I	Practical	-	50	50	-	03
8.	VIII	Labwork - Microbiology and Pathology -I	Practical	-	50	50	-	03
9.	IX	Internship and Project Work- First Aid	---	-	50	50	-	02
Total				230	220	450	15	15

Rayat Shikshan Sanstha's

Savitribai Phule Mahila Mahavidyalaya, Satara.

**B.Voc. in Nursing**

**Course Structure**

**B.Voc.I (Diploma) Semester-II**

Sr.No	Paper No	Title of the Paper	Theory/ Practical	Distribution of Marks		Total	Credits	
				Theory	Practical		Theory	Practical
1.	X	Business Communication- II	Theory and Practical	40	10	50	03	02
2.	XI	Psychology -II	Theory and Practical	40	10	50	03	02
3.	XII	Anatomy and Physiology -II	Theory	50	-	50	03	-
4.	XIII	Biochemistry , Nutrituion and Dietetics -II	Theory	50	-	50	03	-
5.	XIV	Microbiology and Pathology -II	Theory	50	-	50	03	-
6.	XV	Lab. Work- Anatomy and Physiology -II	Practical	-	50	50	-	03
7.	XVI	Lab. Work- Biochemistry, Nutrituion and Dietetics -II	Practical	-	50	50	-	03
8.	XVII	Labwork - Microbiology and Pathology -II	Practical	-	50	50	-	03
9.	XVII I	Internship and Project Work- First Aid	---	-	50	50	-	02
Total				230	220	450	15	15

**Scheme of Teaching: B.Voc.- Part I (Diploma) Semester-I**

Sr. No.	Paper No.	Title	Distribution of workload (per week)		
			Theory	Practical	Total
1.	X	Business Communication- II	4	2	6
2.	XI	Psychology -II	4	2	6
3.	XII	Anatomy and Physiology -II	4	-	4
4.	XIII	Biochemistry , Nutrituion and Dietetics -II	4	-	4
5.	XIV	Microbiology and Pathology -II	4	-	4
6.	XV	Lab. Work- Anatomy and Physiology -II	-	4	4
7.	XVI	Lab. Work- Biochemistry, Nutrituion and Dietetics –II	-	4	4
8.	XVII	Labwork - Microbiology and Pathology –II	-	4	4
9.	XVIII	Internship and Project Work- First Aid	-	-	-
		Total	20	16	36

**Scheme of Teaching: B.Voc.- Part I (Diploma) Semester-II**

Sr. No.	Paper No.	Title	Distribution of workload (per week)		
			Theory	Practical	Total
1.	X	Business Communication- II	4	2	6
2.	XI	Psychology -II	4	2	6
3.	XII	Anatomy and Physiology -II	4	-	4
4.	XIII	Biochemistry , Nutrituion and Dietetics -II	4	-	4
5.	XIV	Microbiology and Pathology -II	4	-	4
6.	XV	Lab. Work- Anatomy and Physiology -II	-	4	4
7.	XVI	Lab. Work- Biochemistry, Nutrituion and Dietetics –II	-	4	4
8.	XVII	Labwork - Microbiology and Pathology –II	-	4	4
9.	XVIII	Internship and Project Work- First Aid	-	-	-
		Total	20	16	36

**Eligibility for Admission**  
Diploma

10 + 2 from Science faculty or equivalent

**Eligibility for Faculty**

GNM

**M.D./M.B.B.S**

M.Sc. (Nursing, Biochemistry, Microbiology, Nutrition,) with NET / SET/Ph.D., M. A (English) with NET/SET/Ph.D. for Business Communication  
M. A (Psychology) with NET/SET/Ph.D. for Psychology

**Eligibility for Laboratory Assistant: B.Sc. (Nursing)**

**Staffing Pattern :**

**In 1<sup>st</sup> Year of B. Voc. - 1 Full Time and 1 Guest Lecturer**

6 CHB Lecturers for Business Communication, Psychology, Biochemistry, Nutrition, Microbiology, Pathology

**Laboratory Assistant**

**: For 1<sup>st</sup> Year of B. Voc. - 1 Part-time**

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**SHIVAJI UNIVERSITY, KOLHAPUR**

**B. Voc. Part – I, Semester - I**

**Nursing**

**Paper – I: Business Communication-I**

**Total Workload: 06 lectures per week of 60 min.**

**Distribution of Workload:**

Theory: 04 lectures per week

Practical: 02 lectures per week per batch of 20 students

**Units Prescribed for Theory:**

**Marks:40**

**Unit- I: Use of English in Business Environment.**

Business Vocabulary: Vocabulary for banking, marketing and for maintaining public relations.

What is a sentence? Elements of a sentence. Types of sentence: Simple, compound, complex.

**Unit- II: Writing a Letter of Application and CV/Resume**

Structure of a letter of application for various posts CV/ and its essentials

Resume

**Unit- III: Presenting Information / Data.**

Presenting information/data using graphics like tables, pie charts, tree diagrams, bar diagrams, graphs, flowcharts

**Unit - IV: Interview Technique**

Dos and don'ts of an interview preparing for an interview  
Presenting documents Language used in an interview

**Practical:Based on the theory units:**

**Marks: 10**

**Reference Books:**

- Sethi, Anjanee & Bhavana Adhikari. *Business Communication*. New Delhi: Tata McGraw Hill Tickoo,
- Champa & Jaya Sasikumar. *Writing with a Purpose*. New York: OUP, 1979.
- Sonie, Subhash C. *Mastering the Art of Effective Business Communication*. New Delhi: Student Aid Publication, 2008.
- Herekar, Praksh. *Business Communication*. Pune: Mehta Publications, 2007.
- Herekar, Praksh. *Principals of Business Communication*. Pune: Mehta Publi. 2003

## **Pattern of a Question Paper**

### **B. Voc. Part-I Business Communication-I**

#### **Semester-I Paper: I**

**Time:2 hours**

**Total Marks:40**

Q.1 Do as directed. Question items on **Unit 1** to be asked.(10 out 12) 10

Q.2 Write a letter of application. 10

OR

Draft a CV/ Resume for a particular post.

Q.3 Present a given information or data using a table/chart/pie diagram, etc. 10

(Any one diagram to be drawn.)

Q. 4 Fill in the blanks in the given interview. 10

#### **Practical Evaluation:**

**Marks: 10**

Oral and Presentation based on the units prescribed.

**SHIVAJI UNIVERSITY, KOLHAPUR**

**B. Voc. Part – I, Semester - I**

**Nursing**

**Paper – II: Psychology-I**

**Total Workload: 06 lectures per week of 60 min.**

**Distribution of Workload:**

Theory: 04 lectures per week

Practical: 02 lectures per week per batch of 20 students

Total Marks: 50 marks (Theory 40+Practical 10)

**Objectives :**

Students will be able to :

1. Understand the importance of psychology in personal and professional life.
2. Understand the biology of human behavior.
3. Understand cognitive and affective processes of human mind.
4. Applying psychological principles while performing nursing duties.

**Unit I : Introduction to Psychology**

1. History and origin of science of psychology
2. Definitions & scope of psychology
3. Relevance to nursing
4. Methods of psychology

**Unit II- Biology of Human behavior**

1. Body mind relationship
2. Genetics and behavior
3. Brain and behavior
4. Association Cortex, Rt and Lt Hemispheres
5. Psychology of Sensations
6. Muscular and glandular controls of behavior
7. Nature of behavior of an organism/Integrated Responses

### **Unit III- Cognitive process**

1. **Attention** – Definition, characteristics and types
2. **Perception**: Meaning, Principles, factors affecting objects, depth, distance and motion. Errors in perception.
3. **Learning**: Nature, types, learner and learning, factors influencing, laws and theories, process, transfer, study habits
4. **Memory**: Meaning, Types, Nature factors influencing, Development Theories and methods of memorizing and Forgetting
5. **Thinking**: Types and levels, stages of development, Relationship with language and communication
6. **Intelligence**: Meaning, classification, uses, theories
7. **Aptitude**: concept, types Individual differences and variability
8. **Psychometric Assessments** of cognitive processes
9. **Alterations in cognitive process** Applications

### **Unit IV-Motivation, Emotions, Stress, Attitudes and their Influence on behavior**

1. **Motivation**: Meaning, Concepts, Types, Theories, Motives and behavior, Maslow's theory, Formation of self-concept, Conflicts and frustration, conflict resolution

#### **2. Emotions & stress**

Emotion: Definition, components, changes in emotions, theories, emotional adjustments, emotions in health and illness

Stress, stressors, cycle, effect, adaptation & coping

3. **Attitude**: Meaning, nature, development, factors affecting Behavior and attitudes, Attitudinal change

4. **Psychometric assessments** of emotions and attitudes

5. **Alterations in emotions**

6. **Applications**

**Paractical: Based on the theory units**

**Marks-10**

**Reference Books :**

1. Bhctic B. D. & Craig M: Element of psychology and mental hygiene for Nurses, Chennai. Orient Longmal.
2. Hurlock E: Development psychology: Tata McGraw Hill Book Co. Dodge Fernald and Peter S. Fernald, Introduction to Psychology, 5 editions, AITBS, 2004.
3. Jacob Anthikad, Psychology for Graduate Nurses, 3 editions, Jaypee, 2004.
4. Morgan C.T. & King, Introduction to Psychology, 7 editions, Megrow bill international.
5. Second course in psychology, Higher secondary std. XII K.T. Basantani, Sheth publishers Pvt. Ltd, 9th ed. 2005
6. Second course in Psychology, Higher secondary std. XI K.T. Basantani, Sheth publishers Pvt. Ltd, 8th ed. 2005
7. Hurlock E: Development psychology: Tata MC grow Hill Book Co.
8. Longman Pvt. Ltd 2. Dandekar, W.N. : Fundamentals of experimental psychology ; Kolhapur : MoghePrakashan

**SHIVAJI UNIVERSITY, KOLHAPUR**

**B. Voc. Part – I, Semester - I**

**Nursing**

**Paper – III: Anatomy and Physiology- I**

**Total Workload: 04 lectures per week of 60 min.**

**Distribution of Workload:**

Theory: 04 lectures per week

Total Marks: 50 marks

**Objectives:**

- 1) To understand different parts of human body, anatomical position and common anatomical terms.
- 2) To understand structure and working of different systems in Human Body
- 3) To apply the knowledge of Anatomy and Physiology in Nursing Practice.

**Unit I-Introduction to Human Anatomy, Physiology and Nursing:**

- 1.Common anatomical terms
- 2.Different parts of human body
- 3.Anatomical Position

**Unit II- Skeletal System:**

- 1.Bones and joints and their working
- 2.Types of bones and their Physiology

**Unit III- Skin and Muscular System:**

- 1.Function of Skin
2. Types of Muscles and its Function

**Unit IV- Digestive and Respiratory System:**

**a) Digestive System:**

1. Different Parts of Digestive Systems
2. Glands Related to Digestive System

**b) Respiratory System:**

Structure of Larynx , Trachea, Bronchi and Lungs.

**Reference Books :**

1. Waugh, Anne (2003), “ Ross & Wilson’s Anatomy & Physiology in health & illness’’10thed., Churchill Livingstone.
2. Anthony & Thibodcon (2000), “Anatomy & Physiology for nurses’’ 11th ed., C.V.,Mosby Co., London.
3. Greig, Rhind, “ Riddle’s Anatomy & Physiology’’, 7th ed., Churchill Livingstone.
4. Singh, I. B. (2005), “Anatomy & Physiology for nurses”, 1st ed., Jaypee.
5. Tortora, (2003), “Principles of Anatomy & Physiology,” 10th ed., Wiley inter.
6. Chaurasia, B.D. (2004), “Human Anatomy”, 4th ed., CBS publishers.
7. Sembulingam, “Essentials of Medical Physiology,” 3rd Edition 2004 J.P. Publications.
- 10.T Clenister and Jean Rosy (1974). “Anatomy and Physiology for Nurses” 2nd Edition, William Hernmarni Medical BK. Ltd.
8. Ganong. F. William, “Review of Medical Physiology”, 15th Edition, Prentice Hall,International Inc., Appleton and Lange.
9. Guyton and Hall, “Textbook of Medical Physiology,” 9th Edition, A Prism2. Indian Edn. Pvt. Ltd.

**SHIVAJI UNIVERSITY, KOLHAPUR**

**B. Voc. Part – I, Semester - I**

**Nursing**

**Paper – IV: Biochemistry, Nutrition and Dietetics- I**

**Total Workload: 04 lectures per week of 60 min.**

**Distribution of Workload:**

Theory: 04 lectures per week

Total Marks: 50 marks

**Objectives:**

- 1) To understand the basic concept of Biochemistry.
- 2) 2) To apply the knowledge of Nutrition and Protein in Nursing Practice

**Unit-I Introduction to biochemistry**

- a) Introduction to biochemistry
- b) Study of cell
- c) Biochemical functions of various components of Cell.
- d) Cell membrane and transport

**Unit II- Nucleic Acids**

**A. Nucleotides –**

- a) chemistry and its biological significance.
- b) Nucleotide metabolism and medical importance.
- c) Chemical nature of nucleic acids- DNA, RNA.
- d) Structure and medical significance of DNA and RNA

**B. Enzymes-**

- a) Nature and functions,
- b) nomenclature and classification,
- c) Mechanism of action of enzymes,
- d) diagnostic importance of enzymes and SERM

### **Unit III -Food –I**

- a) Introduction & definition ,socio-cultural aspects of food
- b) Macronutrients , Micronutrients & their functions
- c)Macronutrients- carbohydrates, Fats ,Protein and their deficiency
- d) Micronutrients – Vitamins, Minerals and their deficiency
- e) Water

### **Unit IV- Food -II**

- a) Factors determining food acceptance.
- b) Functions of food
- c) Meal patterns - choice of right food
- d) Major deficiency diseases related to carbohydrates, Fats, Protein, Vitamins , Minerals

### **References Books:**

- B. Srilakshmi: Dietetics, New Age International Publishers.
- B. Srilakshmi: Nutrition Science , New Age International Publishers
- B. Srilakshmi: Food Science , New Age International Publishers
- Dr.Jyotisingh ,Handbook of Nutrition & Dietetics ,Lotus press publishers .New delhi -02
- Dominic W.S.Wong, Mechanism and Theory in food chemistry ,CBS Publishers Pvt Ltd.
- Gopalan, C. etal : Nutritive value of Indian Foods, Indian Council of Medical Research
- Guyton. A.C. Hall, J.E. : Text Book of Medical Physiology – 9 Ed/ Prism Books (Pvt.) Ltd. Bangalore
- Norman N.Potter ,Joseph H.Hotchkiss ,:Food Science, Fifth edition ,CBS Publishers Pvt Ltd
- Swaminathan, M. : Essentials of Foods and Nutrition, Vols -I and II. Ganesh and Co. Madras.
- Sunetra Roday : Food Hygiene and sanitation with case studies ,Second edition ,McGraw Hil Education (India) Pvt Ltd .
- Shubhangi A. Joshi ,Nutrition& Dietetics ,fourth edition ,McGraw Hill Education (India) Pvt Ltd

**SHIVAJI UNIVERSITY, KOLHAPUR**

**B. Voc. Part – I, Semester - I**

**Nursing**

**Paper – V: Microbiology and Pathology- I**

**Total Workload: 04 lectures per week of 60 min.**

**Distribution of Workload:**

Theory: 04 lectures per week

Total Marks: 50 marks

**Objectives:**

1. Understand different Concepts, terminology and Principles of Microbiology
2. Understand Pathogenic organisms and special pathology
3. Apply the knowledge of pathology in Nursing Practice.

**Unit-I Introduction to Microbiology and Pathology**

• Importance of microbiology with respect to nursing • Historical prospective • Concept and terminology • Principles of microbiology

**Unit II- Microorganisms -General Characteristics**

• Structure and classification of microbes • Morphological types • Size and form of bacteria • Colony characteristics • Growth and nutrition of microbes –Temperature, Moisture, Blood and body fluids • Laboratory methods for identification of microorganisms • Staining techniques, gram staining, acid fast staining, hanging drop preparation • Culture various medias

**Unit III Pathogenic organisms**

• Importance of study of pathology • Definition of terms • Methods of technique • Cellular and tissue changes • Infiltration and regeneration • Inflammation and infection • Wound healing • Vascular changes • Microorganisms – Cocci, Bacilli, Spirochete, Mycoplasma, Rickettsia, Chlamydia • Viruses • Fungi-Superficial and deep mycosis • Parasites • Rodents and vectors

**Unit IV-Special pathology**

- Pathological changes in disease conditions of various systems
- Respiratory tract, Pericardial effusion, Gastro Intestinal Tract, Liver Gall bladder & pancreas, Kidneys and Urinary tract, Male and female genital systems, Central nervous system, Skeletal system

**Reference Books:**

1. Microbiology by Pelczar, M.J.Jr., Chan E.C.S., Krieger, N.R. 5th edition, 1986 (McGraw Hills Publication)
2. Fundamentals of Microbiology by Frobisher, Hindsdill, Crabtree, Good Heart, W.B. Saunders Company, 7th edition
3. Medical Microbiology Vol.I and II by Cruick Shank R., Duguid J. P., Marmion B.P., Swain R.H.A., XIIth edition, Churchill Livingston , New York
4. General Microbiology by Stanier R.Y.V thed tion, McMilan, London
5. Medical Microbiology by N.C. Dey and T. K. Dey
6. Practical Microbiology 1st edition (2002)R.C. Dubey, D.K. Maheshwari, published by S. Chand an company Ltd
7. Laboratory manual of food Microbiology by Neelimagarg, K. L. Garg, K. G. Mukerji published by LK International Publishing House (2017)
8. Medical laboratory technology Vol I and II, Kanai L Mukherjee, Swarajit Ghosh, Tata McGraw Hill Education Private Limited

**SHIVAJI UNIVERSITY, KOLHAPUR**

**B. Voc. Part – I, Semester - I**

**Nursing**

**Paper – VI: Lab Work and Practical- Anatomy and Physiology**

**Total Workload: 04 lectures per week of 60 min.**

**Distribution of Workload:**

Practical: 04 lectures per week per batch

Total Marks: 50 marks (Practicals 50)

**Objectives:**

1. To understand in detail the working and functioning of skeletal and joint System.
2. To understand in detail the working and functioning of skin, muscular, digestive and respiratory system of human body

**Practicals:**

**I) Skeletal and Joint System**

1. Audio –visual demonstration of Skeletal and Joint System
2. Demonstration of bones and joints with the help of skeleton and Surface Marking

**II) Skin and Muscular System**

3. Diagram Sketching, labeling of skin and muscular systems( Journal Sheet)

**III) Digestive System**

4. Diagram sketching and labeling of human digestive systems with the help of Charts
5. Diagram sketching and labeling of Glands related to Digestive System

**IV) Respiratory System**

6. Diagram sketching and labeling of Nose, Larynx, Trachea , Bronchi and Lungs
7. First Aid
8. Practical on use of Pulse Oxy-meter

**SHIVAJI UNIVERSITY, KOLHAPUR**

**B. Voc. Part – I, Semester - I**

**Nursing**

**Paper – VII: Lab Work and Practical- Biochemistry, Nutrition and Dietetics-I**

**Total Workload: 04 lectures per week of 60 min.**

**Distribution of Workload:**

Practical: 04 lectures per week per batch

Total Marks: 50 marks (Practicals 50)

**Objectives:**

- 1) To analyse and study safety and precaution in Biochemistry lab
- 2) To learn DNA, RNA, balanced diet, water purification methods, measurement of PH, vitamins, minerals, glucose

**Practicals :**

1. learning and understanding of Safety in biochemistry laboratory, guidance & Precaution while Practical
2. Diagram, sketching and labeling cell and its components.
3. Diagram, sketching and labeling of structure of DNA and RNA.
4. Preparation of balanced diet chart.
5. Preparation specific Diet charts in various disorders of systems.
6. Water purification method (1) Domestic water (2) Public/Community water supply.
7. Measurement of PH and Study of the buffers.
- 8) Estimation of vitamins, minerals and glucose.

**SHIVAJI UNIVERSITY, KOLHAPUR**

**B. Voc. Part – I, Semester - I**

**Nursing**

**Paper – VIII: Lab Work and Practical- Microbiology and Pathology- I**

**Total Workload: 04 lectures per week of 60 min.**

**Distribution of Workload:**

Practical: 04 lectures per week per batch

Total Marks: 50 marks (Practicals 50)

**Objectives:**

1. Understand how to control Demonstration of laboratory equipments Microbiology and Pathology
2. Understand Pathogenic organisms and special pathology
3. Apply the knowledge of clinical pathology in Nursing Practice

**Practicals :**

- 1) Demonstration of laboratory equipments- Incubator, Autoclave, Hot air oven, Seitz filter , Distilled water plant, anaerobic jar
- 2) Microscopic examination of bacteria by,
  - a. Monochrome staining
  - b. Gram staining
  - c. Negative staining
  - d. Cell wall staining
- 3) Preparation of bacteriological culture media (Peptone water, Nutrient broth, Nutrient agar, Mac Coney's agar).
- 4) Preparation of culture media for fungi (Sabouraud's agar, PDA)
- 5) Observation of motility by hanging drop technique

**SHIVAJI UNIVERSITY, KOLHAPUR**

**B. Voc. Part – I, Semester - I**

**Nursing**

**Paper –IX: Internship/ Project Work-First Aid- I**

**Total Workload: 04 lectures per week of 60 min.**

**Distribution of Workload:**

Practical: 04 lectures per week per batch

Total Marks: 50 marks (Practicals 50)

Internship in associated hospital for hands on training and Project work based on any one aspect / Problem related to syllabus.

**Scheme of External Evaluation :-**

**a) Internship**

- |                                 |          |
|---------------------------------|----------|
| 1) Internship Report            | 15 Marks |
| 2) Presentation and viva - Voce | 10Marks  |

**b) Project Work**

- |    |                              |
|----|------------------------------|
| 1) | Project Report               |
|    | 15 Marks                     |
| 2) | Presentation and viva - Voce |
|    | 10 Marks                     |

**I) Format of Internship Report**

1. Introduction to Course and relevance of associated institutes
2. Objective of Internship
3. Schedule and Attendance of Internship
4. Detail Report on Hands on training regarding acquired skills
5. Conclusion

**II) Project Design and Methodology**

1. Introduction
2. Selection of Problem
3. Objectives
4. Statement of Problem / Project
5. Data Collection, Interpretation
6. Finding and Suggestions
7. Appendices, Bibliography

➤ **Note :**

**Guidelines for internship**

1. Every candidate have to devote per day 2 hours in associated hospital
2. Candidate has to write daily report of work done, and should maintain the daily dairy
3. Candidate has to follow all the rules of associated institute / hospitals.

**Guidelines for Project**

1. Every candidate will be given the mentor for the project, she has to prepare the project work. Under his/ her supervision
2. All candidates must have to follow the **Project Design and Methodology** format.

**SHIVAJI UNIVERSITY, KOLHAPUR**

**B. Voc. Part – I, Semester - I**

**Nursing**

**Paper – X: Business Communication-II**

**Total Workload: 06 lectures per week of 60 min.**

**Distribution of Workload:**

Theory: 04 lectures per week

Practical: 02 lectures per week per batch of 20 students

**Units Prescribed for Theory:**

**Marks:40**

**Unit- I: Group Discussion**

Preparing for a Group Discussion Initiating a Discussion Eliciting Opinions, views etc. Expressing Agreement /Disagreement Making Suggestions; Accepting and Declining Suggestions Summingup.

**Unit- II: Business Correspondence**

Writing Memos, e-mails, complaints, inquiries,etc. Inviting Quotations Placing Orders, Tenders, etc

**Unit- III: English for Negotiation.**

Business Negotiations Agenda for Negotiation Stages of Negotiation

**Unit - IV: English for Marketing**

Describing/Explaining a Product/Service Promotion of a Product Dealing/ bargaining with Customers Marketing a Product/Service: Using Pamphlets, Hoardings, Advertisement, Public Function/Festival

Practical: Based on the theory units Marks: 10

**Reference Books:**

- Herekar, Praksh. *Business Communication*. Pune: Mehta Publications, 2007.
- Herekar, Praksh. *Principals of Business Communication*. Pune: Mehta Publications, 200
- John, David. *Group Discussions*. New Delhi: Arihant Publications.
- Kumar, Varinder. *Business Communication*. New Delhi: Kalyani Publishers, 2000.
- Pardeshi, P.C. *Managerial Communication*. Pune: Nirali Prakashan, 2008.
- Pradhan, N. S. *Business Communication*. Mumbai: Himalaya Publishing House, 2005.
- Rai, Urmila & S. M. Rai. *Business Communication*. Mumbai: Himalaya Publishing House, 2007.

- Sethi,A. &B. Adhikari.*BusinessCommunication*.NewDelhi:TataMcGrawHill.
- Sonie,Subhash C.*Mastering the Art of Effective Business Communication*. NewDelhi: Student Aid Publication, 2008.
- Tickoo, Champa& Jaya Sasikumar.*Writing with a Purpose*. New York: OUP, 1979.
- Whitehead,Jeoffrey & David H.Whitehead. *Business Correspondence*. Allahabad:Wheeler publishing 1996

**Pattern of Question Paper**

**B.Voc. Part-I**

**Business Communication-II**

**Semester –II Paper-II**

**Time:2hours**

**Total Marks:40**

- |   |    |
|---|----|
| Q. 1 Fill in the blanks in the following Group Discussion.<br>(On <b>Unit 5</b> ) (10 out 12)             | 10 |
| Q. 2 Attempt <b>ANY ONE</b> of the following ( <b>A</b> or <b>B</b> ):<br>(On <b>Unit 6</b> )             | 10 |
| Q. 3 Fill in the blanks with appropriate responses:<br>(On <b>Unit 7</b> )                                | 10 |
| Q. 4 Attempt <b>ANY ONE</b> of the following ( <b>A</b> or <b>B</b> ):<br>(On <b>Unit 8</b> ) (10 out 12) | 10 |

**PracticalEvaluation:**

Marks: 10

Oral and Presentation based on the units prescribed.

**SHIVAJI UNIVERSITY, KOLHAPUR**

**B. Voc. Part – I, Semester - I**

**Nursing**

**Paper – XI : Psychology-II**

**Total Workload: 06 lectures per week of 60 min.**

**Distribution of Workload:**

Theory: 04 lectures per week

Practical: 02 lectures per week per batch of 20 students

Total Marks: 50 marks (Theory 40+Practical 10)

**Objectives :**

1. Understand the influence of personality of human behavior.
2. Appreciates developmental psychology.
3. understands the significance of mental hygiene and mental health.
4. Assist with psychological assessments and tests.
5. Participating in psychological assessment of patients

**Unit I- Personality**

1. Definitions, topography, types, theories
2. Psychometric assessments of personality
3. Alterations in personality
4. Applications

**Unit II- Developmental Psychology**

1. Psychology of people at different ages from infancy to old age
2. Psychology of vulnerable individuals-challenged, women, sick, etc.
3. Psychology of groups

### **Unit III- Mental Hygiene and Mental Health**

1. Concept of mental hygiene and mental health
2. Characteristics of mentally healthy person
3. Warning signs of poor mental health
4. Promotive and preventive mental health - Strategies and services.
5. Ego defense mechanisms and implication
6. Personal and social adjustment
7. Guidance and counseling
8. Role of nurse

### **Unit IV- Psychological assessment & tests**

1. Types, development, characteristics - Principles, Uses, Interpretations and
2. Role of nurse in psychological assessment

### **Practical based on above theory units**

**Marks 10**

### **Reference Books**

1. Bhattacharya B. D. & Craig M: Element of psychology and mental hygiene for Nurses, Chennai. Orient Longman.
2. Hurlock E: Development psychology: Tata MC Graw Hill Book Co. Dodge Fernald and Peter S. Fernald, Introduction to Psychology, 5 editions, AITBS, 2004.
3. Jacob Anthikad, Psychology for Graduate Nurses, 3 editions, Jaypee, 2004.
4. Morgan C.T. & King, Introduction to Psychology, 7 editions, McGraw hill international.
5. Second course in psychology, Higher secondary std. XII K.T. Basantani, Sheth publishers Pvt. Ltd, 9th ed. 2005
6. Second course in Psychology, Higher secondary std. XI K.T. Basantani, Sheth publishers Pvt. Ltd, 8th ed. 2005
7. Hurlock E: Development psychology: Tata MC Graw Hill Book Co.
8. Longman Pvt. Ltd 2. Dandekar, W.N. : Fundamentals of experimental psychology ; Kolhapur : MoghePrakashan

**SHIVAJI UNIVERSITY, KOLHAPUR**

**B. Voc. Part – I, Semester - I**

**Nursing**

**Paper – XII: Anatomy and Physiology- II**

**Total Workload: 04 lectures per week of 60 min.**

**Distribution of Workload:**

Theory: 04 lectures per week

Total Marks: 50 marks

**Objectives:**

1. To acquire knowledge of the Cardio-vascular system
2. To students able to understand the Blood and Circulation system.
3. To understand the alteration in physiology disease and practice of nursing.

**Unit I- Cardio-vascular system**

1. Heart and pericardium
2. Arterial system
3. Venous System

**Unit II- Blood and Circulation**

1. Blood components and Functions
2. Blood Groups
3. Haemopoiesis of Blood, Destruction of Blood cells, Jaundice
4. Cardiac Cycle
5. Pulmonary Circulation
6. Portal Circulation
7. Coronary Circulation

### **Unit III- Excretory and Reproductive System**

#### **a) Excretory System**

1. Kidneys
2. Ureter
3. Urinary Bladder and Urethra

#### **b) Reproductive System**

1. Male Reproductive System
2. Female Reproductive System
3. Sterilization

### **Unit IV- Endocrine System and Nervous system and Special Senses**

#### **a) Endocrine System:**

1. Definition, Function and Site of Glands

#### **b) Nervous system and Special Senses**

1. Meninges and CSF
2. Brain and Spinal Cord
3. Motor Nervous System

#### **Reference Books :**

1. Waugh, Anne (2003), "Ross & Wilson's Anatomy & Physiology in health & illness" 10th ed., Churchill Livingstone.
2. Anthony & Thibodcon (2000), "Anatomy & Physiology for nurses" 11th ed., C.V., Mosby Co., London.
3. Greig, Rhind, "Riddle's Anatomy & Physiology", 7th ed., Churchill Livingstone.
4. Singh, I. B. (2005), "Anatomy & Physiology for nurses", 1st ed., Jaypee.
5. Tortora, (2003), "Principles of Anatomy & Physiology," 10th ed., Wiley inter.
6. Chaurasia, B.D. (2004), "Human Anatomy", 4th ed., CBS publishers.
7. Sembulingam, "Essentials of Medical Physiology," 3rd Edition 2004 J.P. Publications.
10. T. Clenister and Jean Rosy (1974). "Anatomy and Physiology for Nurses" 2nd Edition, William Hernmarni Medical BK. Ltd.
8. Ganong. F. William, "Review of Medical Physiology", 15th Edition, Prentice Hall, International Inc., Appleton and Lange.
9. Guyton and Hall, "Textbook of Medical Physiology," 9th Edition, A Prism2. Indian Edn. Pvt. Ltd.

**SHIVAJI UNIVERSITY, KOLHAPUR**

**B. Voc. Part – I, Semester - I**

**Nursing**

**Paper – XIII: Biochemistry, Nutrition and Dietetics- II**

**Total Workload: 04 lectures per week of 60 min.**

**Distribution of Workload:**

Theory: 04 lectures per week

Total Marks: 50 marks

**Objectives:**

- To enable students to :
- To calculate the quantity of dietary ingredient as per calorie requirement.
- To understand the importance of nutrition in health.
- To understand health disorders due to improper diet

**Unit I- Carbohydrates.**

Introduction, classification, chemistry, properties of carbohydrates and their tests.

Biological functions of carbohydrates. Storage of carbohydrates in the body, liver and muscles, carbohydrate metabolism- glycolysis, TCA cycle, glycogenesis, glycogenolysis. genetic disorder of carbohydrate metabolism. Blood glucose and its regulation, GTT, hyperglycemia, hypoglycemia and Glucosuria

**Unit II- Lipids.**

**Lipid** - Introduction, classification, chemistry, properties, their test, Biological functions.

Lipid metabolism- biosynthesis of fats, fatty acid oxidation. storage of fats in the body, blood lipid, ketone bodies. Clinical disorders related with lipid metabolism

**Unit III- Vitamins and Minerals.**

**Vitamins** -. Introduction , classification, Structure, sources and biochemical functions of fat soluble and water soluble vitamins, clinical disorders related to vitamin deficiency.

**Minerals**-Introduction. Major minerals, trace minerals, their biochemical functions, disorders related to mineral deficiency and toxicity.

**Unit IV- Miscellaneous.**

Iron metabolism. Formation and breakdown of hemoglobin. Water, electrolytes and acid balance. pH of Blood and its regulation. Role of buffers, lungs, kidneys. Liver function tests, their biochemical principles.

**Reference Books:**

- B. Srilakshmi: Dietetics, New Age International Publishers.
- B. Srilakshmi: Nutrition Science, New Age International Publishers
- B. Srilakshmi: Food Science, New Age International Publishers
- Dr. Jyotisingh, Handbook of Nutrition & Dietetics, Lotus press publishers, New Delhi -02
- Dominic W.S. Wong, Mechanism and Theory in food chemistry, CBS Publishers Pvt Ltd.
- Gopalan, C. et al : Nutritive value of Indian Foods, Indian Council of Medical Research
- Guyton. A.C. Hall, J.E. : Text Book of Medical Physiology – 9 Ed/ Prism Books (Pvt.) Ltd. Bangalore
- Norman N. Potter, Joseph H. Hotchkiss, : Food Science, Fifth edition, CBS Publishers Pvt Ltd
- Swaminathan, M. : Essentials of Foods and Nutrition, Vols -I and II. Ganesh and Co. Madras.
- Sunetra Roday : Food Hygiene and sanitation with case studies, Second edition, McGraw Hill Education (India) Pvt Ltd.
- Shubhangi A. Joshi, Nutrition & Dietetics, fourth edition, McGraw Hill Education (India) Pvt Ltd

**SHIVAJI UNIVERSITY, KOLHAPUR**

**B. Voc. Part – I, Semester - I**

**Nursing**

**Paper – XIV: Microbiology and Pathology- II**

**Total Workload: 04 lectures per week of 60 min.**

**Distribution of Workload:**

Theory: 04 lectures per week

Total Marks: 50 marks

**Objectives:**

1. Understand how to control infection and develop Immunity of Human beings.
2. Understand Pathogenic organisms and special pathology
3. Apply the knowledge of clinical pathology in Nursing Practice.

**Unit I- Infection control**

• Infection: Sources, portals of entry and exit, transmission • Asepsis • Disinfection: Types and methods • Sterilization: Types and methods • Chemotherapy and antibiotics • Standard safety measures • Biomedical waste management • Role of nurse • Hospital acquired infection • Hospital infection control programme - Protocols, collection of samples, preparation of report and status of rate of infection in the unit/ hospital nurses accountability continuing education etc.

**Unit II-Immunity**

• Immunity- types, classification • Antigen and antibody reaction • Hypersensitivity- skin test • Serological test (Vaccines & sera-types and classification, storage and handling, cold chain)

**Unit III- Clinical pathology**

• Various blood and bone marrow test in assessment and monitoring of disease conditions. • Hemoglobin • RBC, White cells, & platelet counts • Bleeding time, clotting time, and prothrombin time • Blood grouping and cross matching

**Unit IV- Clinical pathology**

Blood chemistry • Blood culture • Serological and immunological test • Other blood test • Examination of bone marrow • Methods of collection of blood specimen for various clinical Pathology, biochemistry, microbiology tests. • Inference and normal values

**Reference Books:**

1. Microbiology by Pelczar, M.J.Jr., Chan E.C.S., Krieger, N.R. 5th edition, 1986 (McGraw Hills Publication)
2. Fundamentals of Microbiology by Frobisher, Hindsdill, Crabtree, Good Heart, W.B. Saunders Company, 7th edition
3. Medical Microbiology Vol.I and II by Cruick Shank R., Duguid J. P., Marmion B.P., Swain R.H.A., XIIth edition, Churchill Livingstone , New York
4. General Microbiology by Stanier R.Y.V thedtion, McMilan, London
5. Medical Microbiology by N.C. Dey and T. K. Dey
6. Practical Microbiology 1st edition (2002) R.C. Dubey, D.K. Maheshwari, published by S. Chand and company Ltd
7. Laboratory manual of food Microbiology by Neelima Garg, K. L. Garg, K. G. Mukerji published by LK International Publishing House (2017)
8. Medical laboratory technology Vol I and II, Kanai L Mukherjee, Swarajit Ghosh, Tata McGraw Hill Education Private Limited

**SHIVAJI UNIVERSITY, KOLHAPUR**

**B. Voc. Part – I, Semester - II**

**Nursing**

**Paper – XV: Lab Work and Practical- Anatomy and Physiology-II**

**Total Workload: 04 lectures per week of 60 min.**

**Distribution of Workload:**

Practical: 04 lectures per week per batch

Total Marks: 50 marks (Practicals 50)

- Objectives:**
1. Understanding the Cardio-Vascular Mechanism through practical.
  2. To Study importance of Blood Groups in Blood transfusion and Pregnancy's
  3. To know the importance of Family Planning.

Practicals:

**Cardio-vascular System**

1. Recording pulse
2. Blood Pressure Recording
3. Heart beats auscultation

**Blood and Circulation**

4. Haemogram
5. RBC
6. WBC
7. ESR
8. Peripheral smear
9. Clotting time
10. Bleeding time
11. Determination of Blood Groups, Standard and Rh. Grouping
12. Grouping and Cross Matching
13. Excretory System
14. Urine-Routine and Microscopic
15. Kidney Function Test

## **16. Reproductive System- .Different Contraceptive Devices**

**SHIVAJI UNIVERSITY, KOLHAPUR**

**B. Voc. Part – I, Semester - II**

**Nursing**

**Paper – XVI: Lab Work and Practical- Biochemistry, Nutrition and Dietetics-II**

**Total Workload: 04 lectures per week of 60 min.**

**Distribution of Workload:**

Practical: 04 lectures per week per batch

Total Marks: 50 marks (Practicals 50)

### **Objectives:**

1. Students able to Determine glucose in Serum.
2. Students will successfully conducting Creatinine clearance test.
3. To apply the knowledge of Biochemistry and Nutrition in Nursing Practice

### **Practicals:**

- 1) Determination of glucose in serum
- 2) Determination and estimation of glucose and proteins in urine.
- 3) Test for bilirubin and urobilinogen in urine.
- 4) Creatinine clearance test.
- 5) Estimation of uric acid in urine and serum.

**SHIVAJI UNIVERSITY, KOLHAPUR**

**B. Voc. Part – I, Semester - II**

**Nursing**

**Paper – XVII: Lab Work and Practical- Microbiology and Pathology- II**

**Total Workload: 04 lectures per week of 60 min.**

**Distribution of Workload:**

Practical: 04 lectures per week per batch

Total Marks: 50 marks (Practicals 50)

**Objectives:**

1. Students able to Determine plate techniques
2. Students will understand the ability of bacteria enzyme.
3. To apply the knowledge of Microbiology and Pathology for nursing

**Practicals:**

Isolation of bacteria by streak plate technique, pour plate technique, Spread plate technique

a) To detect the ability of bacteria to produce amylase enzyme.

b) To detect the ability of bacteria to produce catalase enzyme.

To detect the ability of bacteria to produce caseinase enzyme

Direct Microscopic count of given bacterial suspension

**Reference Books-**

1. Stains and Staining procedures by Desai and Desai
2. Experimental Microbiology by Patel and Patel
3. Medical Microbiology by Cruickshank Vol.II
4. Bacteriological techniques by F.J. Baker
5. Experimental Microbiology by Rakesh Patel Vol. I and Vol. II

**SHIVAJI UNIVERSITY, KOLHAPUR**

**B. Voc. Part – I, Semester - II**

**Nursing**

**Paper –XVIII: Internship/ Project Work-First Aid- II**

**Total Workload: 04 lectures per week of 60 min.**

**Distribution of Workload:**

Practical: 04 lectures per week per batch

Total Marks: 50 marks (Practicals 50)

Internship in associated hospital for hands on training and Project work based on any one aspect / Problem related to syllabus.

**Scheme of External Evaluation :-**

**c) Internship**

3) Internship Report 15 Marks

4) Presentation and viva - Voce 10 Marks

**d) Project Work**

3) Project Report  
15 Marks

4) Presentation and viva - Voce  
10 Marks

**II) Format of Internship Report**

6. Introduction to Course and relevance of associated institutes
7. Objective of Internship
8. Schedule and Attendance of Internship
9. Detail Report on Hands on training regarding acquired skills
10. Conclusion

**III) Project Design and Methodology**

8. Introduction
9. Selection of Problem
10. Objectives
11. Statement of Problem / Project
12. Data Collection, Interpretation
13. Finding and Suggestions
14. Appendices, Bibliography

**Note :**

**Guidelines for internship**

1. Every candidate have to devote per day 2 hours in associated hospital.
2. Candidate has to write daily report of work done, and should maintain the daily dairy.
3. Candidate has to follow all the rules of associated institute / hospitals.

**Guidelines for Project**

1. Every candidate will be given the mentor for the project, she has to prepare the project work. under his/ her supervision
2. All candidates must have to follow the **Project Design and Methodology** format.