

FACULTY OF LIFE SCIENCES

Syllabus for

Bachelor of Medical Laboratory Science

(As Per NCAHP Guidelines)

Semester: I-II

**(Under Credit Based Continuous Evaluation Grading
System)**

(Session: 2026-27)



Kanya Maha Vidyalaya, Jalandhar (Autonomous)

The Heritage Institution

KANYA MAHAVIDYALAYA, JALANDHAR (AUTONOMOUS)
SCHEME AND CURRICULUM OF EXAMINATIONS OF FOUR-YEAR DEGREE
PROGRAMME
(Session: 2026-27)

Bachelor of Medical Laboratory Science (Semester -I)											
Course Code	Course Title	Course Type	Total Credits	Credit Hours			Total Marks	Marks			Exam Time in Hrs
				L	T	P		L	P	CA	
BMLL-1421 BMLL-1031 BMLL-1431	Punjabi (Compulsory) ¹ Basic Punjabi ² Punjab History and Culture	C	2-0-0	2	-	-	50	35	-	15	3
BMLL-1102	Communicative English-I	AEC	2-0-0	2	-	-	50	35	-	15	3
BMLL-1483	Human Anatomy	DSC	4-0-0	3	1	-	100	70	-	30	3
BMLL-1484	Human Physiology	DSC	4-0-0	3	1	-	100	70	-	30	3
BMLL-1485	Fundamentals of the Healthcare System and Medical Laboratory Sciences	DSC	2-0-0	2	-	-	50	35	-	15	3
BMLL-1486	Basic Emergency Care and First Aid	DSC	2-0-0	1	1	-	50	35	-	15	3
BMLL-1107	Communication skills and Professionalism	AEC	2-0-0	2	-	-	50	35	-	15	3
BMLP-1488	Human Anatomy Lab	DSC	0-0-2	-	-	4	50	-	35	15	3
BMLP-1489	Human Physiology Lab	DSC	0-0-2	-	-	4	50	-	35	15	3
BMLM-1120	Basics of Computer Applications	SEC	1-0-1	1	-	2	50	20	15	15	3+3
USEP-0001	Entrepreneurship Mindset-I	SEC	0-0-2	-	-	4	50	-	50	-	3
VACF-1491	*Foundation Course	VAA C	2-0-0	2	-	-	50	35	-	15	1
Total Credits			28								

1 Special paper in lieu of Punjabi (Compulsory).

2 Special paper in lieu of Punjabi (Compulsory) for those students who are not domicile of Punjab.

***Credits of these papers will not be added in SGPA/CGPA and only grades will be provided.**

C- Compulsory

VAAC- Value Added Audit Course

DSC- Discipline Specific Course

AEC- Ability Enhancement Course

SEC- Skill Enhancement Course

KANYA MAHAVIDYALAYA, JALANDHAR (AUTONOMOUS)
SCHEME AND CURRICULUM OF EXAMINATIONS OF FOUR-YEAR DEGREE
PROGRAMME
(Session: 2026-27)

Bachelor of Medical Laboratory Science (Semester -II)											
Course Code	Course Title	Cours e Type	Total Credi ts	Credit Hours			Total Mark s	Marks			Exam Time in Hrs
				L	T	P		L	P	C A	
BMLL-2421	Punjabi (Compulsory)	C	2-0-0	2	-	-	50	35	-	15	3
BMLL-2031	¹ Basic Punjabi										
BMLL-2431	² Punjab History and Culture										
BMLL-2102	Communicative English-II	AEC	2-0-0	2	-	-	50	35	-	15	3
BMLL-2483	Fundamentals of Hematology	DSC	4-0-0	4	-	-	100	70	-	30	3
BMLL-2484	Basics of Biochemistry	DSC	4-0-0	4	-	-	100	70	-	30	3
BMLL-2065	Fundamentals of Microbiology	DSC	4-0-0	4	-	-	100	70	-	30	3
BMLL-2486	Preventive and Social Medicine	DSC	2-0-0	2	-	-	50	35	-	15	3
BMLP-2487	Fundamentals of Hematology Lab	DSC	0-0-2	-	-	4	50	-	35	15	3
BMLP-2488	Basics of Biochemistry Lab	DSC	0-0-2	-	-	4	50	-	35	15	3
BMLP-2069	Fundamentals of Microbiology Lab	DSC	0-0-2	-	-	4	50	-	35	15	3
USEP-0002	Entrepreneurship Mindset -II	SEC	0-0-2	-	-	4	50	35	-	15	3
VACD-2161	Drug Abuse and Ethical Education	VAC	4-0-0	4	-	-	100	70	-	30	3
Total Credits			30								

1 Special paper in lieu of Punjabi (Compulsory).

2 Special paper in lieu of Punjabi (Compulsory) for those students who are not domicile of Punjab.

C-Compulsory

VAC- Value Added Course

DSC- Discipline Specific Course

SEC- Skill Enhancement Course

AEC- Ability Enhancement Course

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
Bachelor of Medical Laboratory Science (Semester-I)
(Session: 2026-27)
Course Title: Human Anatomy
Course Code: BMLL-1483
(THEORY)

Course Outcomes

After passing this course the student will be able to:

- CO1: Comprehend the gross, functional and applied anatomy of various structures in human body.
- CO2: Understand microscopic structures of various tissues and organs in human body
- CO3: Know about basic structure and connections between various parts of central nervous system
- CO4: Know about sensory and reproductive system

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
Bachelor of Medical Laboratory Science (Semester-I)
(Session: 2026-27)
Course Title: Human Anatomy
Course Code: BMLL-1483
(THEORY)

Time: 3 Hours

Total Marks: 100

Credits: 3-1-0

Theory: 70

CA: 30

Instructions for paper setter:

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions of section A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section. Each question carries 14 marks.

Unit- I

General Anatomy: Introduction to Anatomy, terms and terminology. Regions of Body, Cavities and Systems. Surface anatomy- Musculoskeletal, vascular, cardio-pulmonary system. General Embryology.

Tissues: Classification and description of the basic tissues of the body. Histology: Epithelium, compact bone, muscles, connective tissue, nervous tissue, artery, vein and lymphatic tissue. Connective tissue & its modification, tendons, membranes, and special connective tissue.

Musculoskeletal system: Bone structure, blood supply, ossification, and classification. Muscle classification, structure, types and functional aspects. Joints—classification, structures of joints, movements, range, blood supply, nerve supply, dislocations.

Unit- II

Respiratory system: Structure of the upper and lower respiratory tract. Thorax: Pleural cavities & pleura, Lungs and respiratory tree, Heart and great vessels, Diaphragm.

Digestive system: Parts/Structure of digestive system, Abdominal cavity - divisions, Muscles of abdominal wall, Liver, Pancreas, Spleen, Alimentary canal, Gall bladder, Intestine (small & large), and accessory organs of digestion.

Unit- III

Excretory System: Anatomy of the Kidney. Structure of the kidney, ureter, urinary bladder, male and female urethra. General description of pelvic organs.

Lymphatic system: Lymphatic vessels and lymph, lymph nodes, Spleen. Mediastinum – division and contents.

Cardiovascular system: Circulatory system – major arteries and veins of the body, structure of blood vessels, Heart structure, positions, chambers, valves, internal & external features, Blood supply to heart, Conductive system of heart.

Unit- IV

Nervous system: Classification of the nervous system. Nerve – structure, classification, microscopy with examples. Spinal cord- anatomy, structure and features of Meninges, Ventricles of the brain, CSF circulation.

Sensory system: Structure of the Visual system, Auditory system, Gustatory system, Olfactory system, Somatosensory system, Skin.

Reproductive system: Structure of male and female reproductive organs

Endocrine system: Pituitary gland, Thyroid, Parathyroid

Books Recommended

1. Ross and Wilson – Anatomy and Physiology in Health and Illness, 11th Ed., Elsevier
2. Chaurasia B.D. – Human Anatomy, 7th Ed., CBS Publishers
3. Gerard J. Tortora & Bryan H. Derrickson – Principles of Anatomy and Physiology, 14th Ed., Wiley
4. Frank H. Netter – Atlas of Human Anatomy, 7th Ed., Elsevier
5. Frederic H. Martini et al. – Fundamentals of Anatomy and Physiology, 9th Ed., Pearson
6. Gray's Atlas of Anatomy – Richard Drake, Elsevier
7. Manju Chugani & Preysi Chauhan – Simplified Anatomy and Physiology for Paramedical Students, Jaypee

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
Bachelor of Medical Laboratory Science (Semester-I)
(Session: 2026-27)
Course Title: Human Physiology
Course Code: BMLL-1484
(THEORY)

Course Outcomes

After passing this course the student will be able to:

CO1: Understand various parts of cell and composition of blood.

CO2: Understand nervous system and respiratory system

CO3: Know about physiology of digestive and renal system

CO4: Know about lymphatic, immunological, cardiovascular and endocrine system.

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
Bachelor of Medical Laboratory Science (Semester-I)
(Session: 2026-27)
Course Title: Human Physiology
Course Code: BMLL-1484
(THEORY)

Time: 3 Hours

Total Marks: 100

Credits: 3-1-0

Theory: 70

CA: 30

Instructions for paper setter:

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions of section A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section. Each question carries 14 marks.

Unit-I

General Physiology: Cell: morphology, structure and function of cell organelles, Structure of cell membrane, Transport across cell membrane, Intercellular communication, Homeostasis.

Blood: Introduction-composition & function of blood, WBC, RBC, Platelets formation & functions, Immunity, Plasma: composition, formation & functions, Plasma Proteins:-types & functions, Blood Groups- types, significance, determination, Haemoglobin, Haemostasis.

Nervous system and muscle: Organisation of the nervous system. Structure and function of muscle and nerve cells. Functions of the brain, the Spinal cord, the cranial and spinal nerves, and the Motor system. Sensory system. ANS, Synapse, neuromuscular transmission reflex arc, reflex action and reflexes, Cerebrospinal fluid.

Unit -II

Digestive System: Digestion & absorption of nutrients, Gastrointestinal secretions & their regulation, Functions of Liver, pancreas & stomach, Gastrointestinal tract disorders.

Renal System: Functions of the kidney, urine formation, Glomerular filtration rate, clearance, Tubular function. Water excretion, concentration of urine-regulation of Na⁺, Cl⁻, K⁺ excretion, Physiology of urinary bladder.

Unit -III

Lymphatic and immunological system: Lymph glands and circulation of lymph, Spleen structure and function, Immunity – Formation of T-cells and B-cells, Antigen, Antibody and Immune response.

Cardiovascular system: Functions of the heart, organisation of the cardiovascular system, structure and properties of cardiac muscles. Cardiac output, cardiac cycle, and conducting system of the heart. Heart sounds, regulation of heart rate, pulse, blood pressure and its regulation. ECG, cardio-respiratory changes during exercise.

Unit -IV

Endocrine system: Physiology of the endocrine glands – Pituitary, Pineal Body, Thyroid, Parathyroid, Adrenal, Gonads, Thymus, Pancreas. Hormones secreted by these glands, their classifications, and their functions.

Male and female reproductive system: Male: functions of testes & penis, pubertal changes in males, testosterone: action & regulations of secretion, ejaculatory mechanism & dysfunction Female: functions of ovaries and uterus, pubertal changes, menstrual cycle, oestrogens and progesterone action and regulation. Physiological changes during pregnancy, Placenta and placental circulation.

Books Recommended

1. Guyton & Hall – Textbook of Medical Physiology, Elsevier
2. C.C. Chatterjee – Human Physiology, Medical Allied Agency
3. K. Sembulingam – Essentials of Medical Physiology, Jaypee
4. Gerard J. Tortora & Bryan H. Derrickson – Principles of Anatomy and Physiology, 14th Ed., Wiley
5. Ross and Wilson – Anatomy and Physiology in Health and Illness, 11th Ed., Elsevier

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
Bachelor of Medical Laboratory Science (Semester-I)
(Session: 2026-27)
Course Title: Fundamentals of the Healthcare System And
Medical Laboratory Science
Course Code: BMLL-1485
(THEORY)

Course Outcomes

After passing this course the student will be able to:

- CO1: Understand basic knowledge of the healthcare delivery system in India.
- CO2: Identify the laboratory safety measures.
- CO3: Learn about biomedical safety management
- CO4: Understand the organization, the importance of clinical labs, lab professionals and regulatory professional bodies.

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
Bachelor of Medical Laboratory Science (Semester-I)
(Session: 2026-27)
Course Title: Fundamentals of the Healthcare System And
Medical Laboratory Science
Course Code: BMLL-1485
(THEORY)

Time: 3 Hours

Total Marks: 50

Credits: 2-0-0

Theory: 35

CA: 15

Instructions for paper setter:

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions of section A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section. Each question carries 14 marks.

Unit- I

Introduction to healthcare delivery system : Healthcare delivery system in India at primary, secondary and tertiary care, classification of hospitals based on system of medicine, Community participation in healthcare delivery system, National Health Mission, National Health Policy, Issues in Health Care Delivery System in India

Unit- II

Visit to Clinical laboratories, Introduction to clinical Laboratory, Classification of Laboratory, Introduction to various sections/departments in clinical laboratories, Lab space and designing, Knowledge of lab organisational chart, Role of Laboratory in patient care

Unit- III

Lab safety measures: Infection control, Universal precautions, PPE, Vaccination, Chemical, physical, electrical and fire safety.

Biomedical waste management

Records and their importance in a hospital, Records maintained in the Laboratory as per ISO 15189, importance of records and reports, Data entry and management on an electronic health record system.

Unit- IV

Medical terminology: Derivation of medical terms, Basic medical terms, form medical terms utilising roots, suffixes, prefixes, and combining roots, Interpret basic medical abbreviations/symbols.

Regulatory Bodies & Professional Organisations: Roles & Responsibilities – MoHFW, NCAHP, State Council, Registration

Books Recommended:

1. Textbook of Medical laboratory Technology, Mirnali Sant, CBS publishers. 2022
2. Textbook of Medical laboratory Technology, Ramnik Sood, Jaypee Publishers, 2006
3. Textbook of Medical laboratory Technology, Godkar PB, Bhalani Publishing House, 2024

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
Bachelor of Medical Laboratory Science (Semester-I)
(Session: 2026-27)
Course Title: Basic Emergency Care and First Aid
Course Code: BMLL-1486
(THEORY)

Course Outcomes

After passing this course the student will be able to:

- CO1: Assess emergencies quickly and accurately to ensure personal and victim safety
- CO2: Demonstrate basic life-saving techniques including CPR and the recovery position.
- CO3: Learn about appropriate first aid for common injuries such as wounds, burns, fractures and poisoning.
- CO4: know about vitals of patients like pulse and blood pressure.

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
Bachelor of Medical Laboratory Science (Semester-I)
(Session: 2026-27)
Course Title: Basic Emergency Care and First Aid
Course Code: BMLL-1486

Time: 3 Hours

Total Marks: 50

Credits: 1-1-0

Theory: 35

CA: 15

Instructions for paper setter:

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions of section A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section. Each question carries 14 marks.

Unit- I

First Aid: Introduction, Aims & objectives of first aid, Priorities of first aid, Golden rules of first aid, Qualities & responsibilities of first aider, Simple first aid measures in selected conditions like Food poisoning, Snake bite, Scorpion bite, Dog bite, foreign bodies in various organs, Burns, Haemorrhage.

Unit- II

Shock: Definition, Types of shock, General Features of shock, Investigations of shock, Initial management & first aid of shock

Poisoning- Definition, Causes of poisoning, Sources of Poisoning, Symptoms of poisoning, First aid & Management, Antidotes, Common drugs poisoning, Carbon monoxide poisoning

Unit- III

Introduction: Chain of survival, team dynamics & multi-rescuer resuscitation. Vital signs of patients- Body temperature, Pulse, Blood Pressure, Respiration.

Unit- IV

Basic Life Support (BLS) in adults: Flowchart approach, approach to victim, techniques of CPR, BLS in paediatric Victims: checking pulse in children, chest compressions techniques, Bag mask ventilation technique

Books Recommended:

1. Manual of first aid, 1st edition, Gupta Abhitabh, 2012, Jaypee Publishers
2. Emergency medicine, 5th edition, SN Chugh, Ashimachugh 202, CBS publishers

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
Bachelor of Medical Laboratory Science (Semester–I)
(Session: 2026-27)
Course Title: Human Anatomy Lab
Course Code: BMLP- 1488
(PRACTICAL)

Course Outcomes

After passing this course the student will be able to:

CO1: Observe positions of various parts of human body

CO2: Know about skeletal and respiratory system

CO3: Understand about digestive, urinary and sensory system

CO4: Gain knowledge about cardiovascular, reproductive and nervous system

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
Bachelor of Medical Laboratory Science (Semester-I)
(Session: 2026-27)
Course Title: Human Anatomy Lab
Course Code: BMLP- 1488
(PRACTICAL)

Time: 3 Hours

Total Marks: 50

Credits: 0-0-2

Practical: 35

CA: 15

1. Study of anatomical plans and positions
2. Histological study of tissues
3. Study of Skeletal system
4. Study of respiratory system
5. Study of digestive system
6. Study of urinary system
7. Study of Cardiovascular system
8. Study of Nervous system
9. Study of sensory organs: eye, ear, nose, tongue and skin
10. Study of reproductive system

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
Bachelor of Medical Laboratory Science (Semester-I)
(Session: 2026-27)
Course Title: Human Physiology Lab
Course Code: BMLP- 1489
(PRACTICAL)

Course Outcomes

After passing this course the student will be able to:

CO1: Estimate hemoglobin content and blood cell count (RBC, WBC)

CO2: Measure blood pressure and pulse rate

CO3: Understand ECG and EMG

CO4: Able to prepare blood smear

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
Bachelor of Medical Laboratory Science (Semester-I)
(Session: 2026-27)
Course Title: Human Physiology Lab
Course Code: BMLP- 1489
(PRACTICAL)

Time: 3 Hours

Total Marks: 50

Credits: 0-0-2

Practical: 35

CA: 15

1. Perform blood collection
2. Estimation of Hemoglobin
3. Demonstrate blood cell count – RBC count and WBC count
4. Prepare blood smear and staining
5. Measure Blood pressure and Pulse Rate
6. Demonstration of ECG
7. Demonstration of EMG
8. Perform Reflexes testing
9. Spirometry and PFT (Pulmonary function test)

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
Bachelor of Medical Laboratory Science (Semester-I)
(Session: 2026-27)
Course Title: Entrepreneurship Mindset-I
Course Code: USEP-0001
(PRACTICAL)

Course Outcomes

After passing this course the student will be able to:

CO1: Launch and manage a business within their chosen track.

CO2: Identify profitable opportunities and develop innovative solutions.

CO3: Implement marketing and sales strategies using both digital and traditional methods.

CO4: Use financial metrics to track performance and make informed business decisions.

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
Bachelor of Medical Laboratory Science (Semester-I)
(Session: 2026-27)
Course Title: Entrepreneurship Mindset-I
Course Code: USEP-0001

Time: 3 Hours

Total Marks: 50

Credits: 0-0-2

Practical: 50

Entrepreneurial Specialization Tracks: Skill Development and Business Implementation:

Throughout the program, students will select one of the following five specialized tracks using the “Punjab Entrepreneurship Mindset Programme” App, designed to provide a structured pathway for developing entrepreneurial skills and implementing business ventures.

1. E-commerce: In this track, students will learn how to build, manage, and scale an online business. From setting up an e-commerce platform to managing digital marketing strategies, inventory, and customer experience, this specialization provides the tools needed to succeed in the rapidly growing digital marketplace.

2. Content Creation: This track focuses on empowering students to create, curate, and market digital content across various platforms. Students will learn how to build a personal or brand identity, develop engaging content, and monetize their platforms, whether through social media, video production, blogging, or influencer marketing.

3. Professional Services: In this track, students will learn how to capitalize on freelance and contract-based opportunities. They will explore strategies for building a sustainable service-based business, manage client relationships, and maximize the flexibility that comes with this track.

4. Retail Business: This track introduces students to the fundamentals of starting and managing small-scale retail ventures. Learners will discover how to identify in-demand products, source suppliers, setup shop (physical or home-based), and attract local customers. Emphasis will be placed on practical steps like pricing, promotion, customer service, and building repeat sales to establish a steady income stream.

The focus is on practical application, with students engaging in real-world projects that culminate in the creation and scaling of a business.

Registration on the APP:

For Android Users:

Step1: Click the following link to download and install the App:

https://drive.google.com/file/d/1zgfoFWN0Y1zWJNf_gMpbGvlyeQl0WPM2/view?usp=drivesdk

Step2: Register by providing your details and generate OTP.(If the OTP is not generated, use the last six digits of your mobile number as the OTP).

Step3: Open the tasks and complete it by giving your feedback and handling the AI based Quiz.

For I-Phone Users:

Step1: Click on this link <https://punjabstartup.com/>

Step2: Signup to create an account and generate OTP

Step3: Filling our personal and educational details. After your account is created, open the tasks and complete it by giving your feedback and handling the AI based Quiz.

Content Creation		
Week/ Milestone	Milestone	Description
1	Start your journey as a content creator	Learn how to reach thousands of followers online by creating content
2	Decide your content topic	Explore different topics and finalize one topic on which you will create content
3	Start your own content channel	Launch your official channel on YouTube or Instagram and start building your audience
4	Plan your first week content calendar	Learn how to create a simple weekly content calendar that would keep your audience engaged and make them follow you
5	Plan and record your first video	Learn how to create a clear and catchy script for your first video and shoot it using your phone
6	Edit and launch your first video	Learn how to edit your video with trendy music And cool effects and launch your channel with first video
7	Reach first 100 followers	Use WhatsApp and personal Instagram account to tell people about your channel

		and reach first 100 followers/subscribers
8	Master the skill of engaging people with your content	Learn how to connect with your audience so they stay engaged and feel involved
9	Follow latest trends and famous influencers to grow your channel	Learn how to use trending to pics and tag well- known channels or creators to boost your reach and attract more followers
10	Learn how you can make money from your content	Discover how to do brand deals and promote brands or products your followers truly care about
11	Make your first partnership	Reach out to 10 brands for partnership and turn one into your first paid deal
12	Plan your business growth	Create a 1-month plan on what to post on a weekly basis to grow your followers and earn money

E-Commerce		
Week/ Milestone	Milestone	Description
1	Learn how to start selling online	Learn what an E-commerce business is and how you can start selling online in less than 30 days 2
2	Choose your product	Explore different products and finalize what you want to sell online
3	Find a supplier who will deliver the product for you	Identify suppliers who can send your product directly to the customer and help you launch your E-commerce business
4	Create your E-commerce store	Make a simple online store using Instamojo and learn how to upload product images and description on the store 5
5	Activate payments on your store	Learn how to link your bank account to a payment gateway and integrate that with your Instamojo store to Start receiving payments
6	Launch your online store	Connect your domain name to your Instamojo account, create your launch poster, and officially launch your E-commerce store

7	Get first 100 people visit your online store	Learn how to write simple and catchy messages to promote your store and send it to 100 people
8	Make your first sale	Convert one paying customer and learn how to process the order from beginning to delivery
9	Create and post your first ad	Learn how to design a simple promotional ad and post it to bring in more people and sales
10	Take feedback from customers	Engage with your paid customers, take product feedback, and upload success stories or reviews on your website
11	Get a repeat customer or referral	Build trust with your paid customers to get either a repeat order or a referral
12	Plan your business growth	Make a 1-month plan to promote and grow your E-commerce store and earn more money

Professional Service		
Week/ Milestone	Milestone	Description
1	Start your journey in professional services	Learn what is a service and how you can earn money by offering your skill as a service
2	Choose your service skill	Choose one skill you are good at and turn it into a service that people will pay for
3	Find your ideal customer	Talk to people directly or through social media apps, understand who is willing to pay For your service and "WHY"
4	Build your online profile and show what you offer	Explore apps or websites such as WhatsApp Business, Upwork, or Urban Company, and learn how to create an online profile
5	Write your service	Learn how to write your service in a simple and powerful way that gets people

	description	excited to try it
6	Finalize your pricing and launch your service	Learn how to set the right price that your customer finds fair and launch your service
7	Get first 100 leads for your service	Learn how to write catchy messages to promote your service in the market and get first 100 leads
8	Offer a free service and learn from feedback	Give your service for free to real users and use their feedback to make it better
9	Make your first sale	Get one paying customer for your service and work really hard to get a 5 star rating and a video testimonial
10	Build trust with customers and get repeat orders	Use your trust and good relationship with existing customers to get your first repeat customer
11	Earn your first referral	Start offering bonus or other additional services to your existing customers and get Your first referral
12	Plan your business growth	Make a 1 month plan on how to get more customers and earn more money

Retail Business		
Week/ Milestone	Milestone	Description
1	Learn how to start retail business	Understand how retail works, the types of business you can start, and talking to local shop
2	Choose your product and ideal customer	Look at products in demand in your area and choose what you'll focus on based on Your customer needs
3	Find a supplier for your product	Identify suppliers or wholesalers who can give you quality products/raw materials at good prices

4	Setup your business	Arrange your shop/home or prepare your product stocked with shopkeepers
5	Decide product prices and prepare stock	Decide the right selling price, maintain a simple record of sales, and get ready to handle cash or digital payments
6	Launch your business	Put up posters near your shop, and share the announcement with friends, family, and local Community groups
7	Promote your business in your area	Learn how to use simple ways to promote your business locally
8	Make your first sale	Ensure the buying process is smooth and the customer is happy
9	Take feedback from customers	Engage with your paid customers and take product feedback
10	Discover other platforms to grow your sales	Learn how to setup a free WhatsApp Business account for your shop and collect Orders there
11	Get a repeat customer or referral	Build trust with your paid customers to get either a repeat order or a referral
12	Plan your business growth	Make a 1-month plan to promote and grow your retail business and earn more money

Miscellaneous		
Week/ Milestone	Milestone	Description
1	Start your journey as an entrepreneur	Learn what entrepreneurship means and how you can start earning by solving problems around you
2	Identify and valid a tea problem to solve	Look around yourself, talk to people, and pick one real problem that many people face
3	Define your customer	Find out who will buy from you, what

	and their pain points	difficulties they face, and why they need your solution
4	Generate business ideas and finalize one idea	Think of different ways to solve the problem, compare options, and choose one idea to move ahead with
5	Define your product or service	Decide clearly what product or service you will Provide and how it will solve the customer's problem
6	Finalize your pricing and launch your business	Set a fair price for your product or service and take the first step to launch your business
7	Promote your business and get first 100 leads	Tell people about your business using word of mouth, posters, or social media, and collect interest from 100 people
8	Make your first sale	Get your first paying customer and deliver your product or service with full effort
9	Take feedback from customers and improve	Listen to what customers say after using your product/service and make it better step by step
10	Build trust with customers and get your first repeat order	Keep your promise, give good quality, and motivate your customer to buy from you again
11	Earn your first referral and expand your sales	Ask happy customer store commend you to friends and family so that you can grow your sales
12	Plan your business growth	Make a simple plan for the next month to get more customers, increase sales, and grow your business

Evaluation Criteria

The evaluation will be conducted by a committee consisting of the class mentor, nodal officer and the principal HOD or his/her nominee.

Evaluation Component	Description	Weightage
Weekly Task Completion	Timely submission of weekly tasks, including activities, reflection prompts, graded quizzes etc.	60%
Target Completion	Performance-based evaluation on	20%

	hitting revenue or Profit targets (e.g. generating L 10,000 revenue)	
Final Project	A comprehensive project depending the theme of the semester	20%

Evaluation mechanism: The score generated by the app will be final. Weekly Component:

Each week of the course follows a structured format designed to guide students from learning to doing, using simple, mobile-accessible components:

Component	Duration	Description
Action Lab	~4hrs	- Hands-on task on the weekly concept - Includes step-by-step guidance, templates, and worksheets - Ends with a submission(e.g., video, reflection, or proof of action)
Learning Resources	Self-paced	-Videos, short readings, real-life stories, and tools to deepen understanding at their own pace
Check-in	Self-paced	-Quizzes & Reflection prompts

Syllabus Overview for Semester 1-5

Semester	Learning Focus	Learner's demonstration	Revenue Target
1	Setup & Launch	Understand. Create. Start.	Rs 10,000
2	Marketing Basics	Engage. Share. Grow.	Rs 40,000
3	Operations & Scale	Earn. Deliver. Expand.	Rs 80,000
4	Organic Growth	Attract. Retain. Build.	Rs 160,000
5	AI Automation & Finance mastery	Simplify. Track. Sustain	Rs 400,000

Semester 1: Setup & Launch

In Term 1, students will explore what entrepreneurship means and how it connects to their daily lives. They will learn to identify problems, shape simple business ideas, and test the minimal settings. This semester builds the foundation—mindset, observation, value creation, and action.

Semester 2: Marketing Basics

In Term 2, students will learn how to attract customers and grow their visibility using digital platforms and community-based marketing strategies. Students will also begin to run paid advertising campaigns and learn how to optimize their marketing efforts.

Semester 3: Operations & Scale

This semester focuses on the day-to-day operations of running a business, including order fulfillment, customer service, and logistics. Students will also focus on scaling operations as demand grows, with an emphasis on managing resources effectively.

Semester 4: Organic Growth

Students will learn how to grow their businesses organically, using referrals, partnerships, and community engagement. This semester focuses on building a loyal customer base and using word-of-mouth marketing to increase reach and credibility.

Semester 5: AI Automation & Financial Mastery

The final semester prepares students for long-term sustainability. Students integrate AI to improve productivity, automate routine tasks, and enhance decision-making. They also dive deep into financial planning, learning to set income goals, track expenses, understand profit margins, and create simple financial forecasts. This semester helps students solidify their entrepreneurial identity design systems for financial stability and scalability.

Books Recommended:

1. Simon Sinek, *Start with Why: How Great Leaders Inspire Everyone to Take Action*, Portfolio/Penguin
2. Eric Ries, *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*, Crown Business
3. Jonah Berger, *Contagious: How to Build Word of Mouth in the Digital Age*, Simon & Schuster
4. Phil Knight, *Shoe Dog: A Memoir by the Creator of Nike*, Scribner
5. Jason Fried and David Heinemeier Hansson, *Rework: Change the Way You Work Forever*, Crown Business
6. Héctor García and Francesc Miralles, *Ikigai: The Japanese Secret to a Long and Happy Life*, Penguin Books
7. Tim Ferriss, *Tools of Titans (Selected Chapters)*, Houghton Mifflin Harcourt

8. Peter Thiel and Blake Masters, Zero to One: Notes on Startups, or How to Build the Future, Crown Business
9. Anil Lamba, Romancing the Balance Sheet, Anil Lamba Publications
10. The Better India/Your Story, Young Entrepreneurs Series (Collection of Articles) Real Indian stories of youth starting businesses, snack able reads that show what's possible.

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
Bachelor of Medical Laboratory Science (Semester–II)
(Session: 2026-27)
Course Title: Fundamentals of Hematology
Course Code: BMLL- 2483
(THEORY)

Course Outcomes

After passing this course the student will be able to:

CO1: Understand composition of blood and functions of blood cells.

CO2: Identify normal and abnormal blood cells.

CO3: Comprehend the process of hemostasis and its physiological properties.

CO4: Gain knowledge about hematological techniques used to analyse basic parameters.

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
Bachelor of Medical Laboratory Science (Semester–II)
(Session: 2026-27)
Course Title: Fundamentals of Hematology
Course Code: BMLL- 2483
(THEORY)

Time: 3 Hours

Total Marks: 100

Credits: 3-1-0

Theory: 70

CA: 30

Instructions for paper setter:

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions of section A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section. Each question carries 14 marks.

Unit- I

Introduction to blood, composition and function of normal cellular components. Haematopoiesis: Site of haematopoiesis, Bone marrow and Bone marrow collection; Cellular ratio, bone marrow biopsy and aspiration techniques and their indications for collection.

Erythrocytes: Normal Structure, Function, and Fate of Erythrocytes along with Clinical Indications of Jaundice, Normal Range. Abnormal Red Blood Cells: Anisocytes, Poikilocytes, and their clinical significance.

Unit- II

Hemoglobin: Structure, composition and function, synthesis and regulation of hemoglobin, oxygen association and dissociation curve Various types of hemoglobin with clinical significance - Fetal hemoglobin, Meth-hemoglobin, Sulf-haemoglobin, Carboxyhemoglobin, Sick cell hemoglobin, Glycosylated hemoglobin, different methods of estimation.

Leucocytes: Structure, functions, normal range, lifespan of normal White Blood Cells. Quantitative and qualitative disorders of White Blood Cells: physiological and pathological causes.

Unit- III

Thrombocytes: Structure, functions, normal range, lifespan of normal Platelets. Quantitative disorder of Platelets: physiological and pathological causes.

Normal hemostasis and physiological properties of coagulation factors. Primary, secondary and tertiary hemostasis. Role of the platelets, coagulation factors, coagulation inhibitory system and fibrinolysis.

Hematocrit and Erythrocyte Sedimentation Rate: physiological and pathological causes.

Unit- IV

Automation in Haematology lab: principles and analysis.

Quality assurance in Haematology: Internal and external quality control, including reference preparation, Routine quality assurance protocol, Statistical analysis, i.e. Standard deviation, Coefficient of variation, accuracy and precision

Anticoagulants: types, mode of action and preference of anticoagulants for different haematological studies. Different types of blood collection, including the preservation of blood samples for various haematological investigations. Principles of Romonowsky stain with examples and its applications

Books Recommended:

1. Godkar, P. B., & Godkar, D. P. (2006). Textbook of medical laboratory technology. Bhalani publishing house.
2. Dacie, J. V. (2006). Dacie and Lewis practical haematology. Elsevier Health Sciences.
3. Firkin, F., Chesterman, C., Rush, B., & Pennigton, D. (2008). De Gruchy's Clinical haematology in medical Practice. John Wiley & Sons.
4. McPherson, Richard A.. (2022). Henry's clinical diagnosis and management by laboratory methods, 24th ed. (24). : Elsevier.
5. M.D., H, T., M.D, H, D. (2004). Color Atlas of Hematology Practical Microscopic and Clinical Diagnosis. New York: Thieme.
6. Greer, J. P., Arber, D. A., Glader, B., & List, A. F. (2018). Wintrobe's clinical hematology (14th ed.). Wolters Kluwer.
7. Kanai, L Mukherjee, (2010). Medical Laboratory Technology, CBS publishers

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
Bachelor of Medical Laboratory Science (Semester–II)
(Session: 2026-27)
Course Title: Basics of Biochemistry
Course Code: BMLL- 2484
(THEORY)

Course Outcomes

After passing this course the student will be able to:

- CO1: Understand structure and function of carbohydrates and lipids.
- CO2: Gain knowledge about amino acids, proteins and nucleic acids.
- CO3: Explain fundamental principles of enzyme action, inhibition and regulation.
- CO4: Demonstrate knowledge of biochemical techniques used to analyse biomolecules.

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
Bachelor of Medical Laboratory Science (Semester–II)
(Session: 2026-27)
Course Title: Basics of Biochemistry
Course Code: BMLL- 2484
(THEORY)

Time: 3 Hours

Total Marks: 100

Credits: 3-1-0

Theory: 70

CA: 30

Instructions for paper setter:

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions of section A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section. Each question carries 14 marks.

Unit- I

Introduction to Biochemistry: Units of weight and volume, Preparation of solutions (percentage, Molarity, Normality), Basic concepts of acids, bases, and buffers, their application in the Laboratory. Definition and determination of pH. Preparation of distilled water, double-distilled water, and deionised water. Fundamental concepts on biophysical phenomena like osmosis, dialysis, colloidal state, viscosity, adsorption, osmotic pressure, and surface tension.

Chemistry of Carbohydrates: Introduction to carbohydrates, biological importance of carbohydrates, classification, physical and chemical properties

Unit- II

Chemistry of lipids: Introduction to lipids, biological importance of lipids, Classification of lipids, Physical and chemical properties, Cholesterol and lipoproteins

Chemistry of Amino acids & Proteins: Introduction to amino acids, biological importance of Amino acids, classification of amino acids. Introduction to proteins, the biological importance of proteins. Classification of proteins, Structural organisation of Proteins, Physical and chemical properties of Proteins and Amino acids

Unit- III

Chemistry of Nucleic acids: Introduction to Nucleic acids, nucleotides, nucleosides, biological importance of Nucleic acids, Structure of DNA and RNA, Difference between DNA and RNA

Chemistry of Enzymes: Introduction of enzymes, classification of enzymes, Coenzymes and Cofactors, Active site, Mechanism of action, Factors influencing enzyme action, Enzyme inhibition and regulation.

Unit- IV

Vitamins & Minerals: Introduction to vitamins, Classification, RDA, Chemistry and biochemical function, deficiencies and toxic manifestations Introduction to minerals, Classification, RDA, Chemistry and biochemical function, deficiencies and toxic manifestations, Special references to calcium, phosphorus, magnesium, iron, zinc and copper

Nutrition: Calorie Requirements, SDA and BMR, Respiratory Quotient, Glycemic Index, Balanced Diet and Energy Calculations, Formulation of diet and dietary fibre, Starvation, obesity, and Protein Energy Malnutrition

Books Recommended:

1. U. Sathyanarayana – Biochemistry, Elsevier
2. Robert K. Murray et al. – Harper's Illustrated Biochemistry, Tata McGraw-Hill
3. M.N. Chatterjee & Rana Shinde – Textbook of Medical Biochemistry, Jaypee
4. Alan Gowenlock – Varley's Practical Clinical Biochemistry, CBS
5. David L. Nelson & Michael M. Cox – Lehninger Principles of Biochemistry, W.H. Freeman
6. D.M. Vasudevan – Textbook of Biochemistry, Jaypee
7. A.C. Deb – Fundamentals of Biochemistry, New Central Book Agency
8. Y.K. Joshi – Basics of Clinical nutrition, Jaypee publishers

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
Bachelor of Medical Laboratory Science (Semester–II)
(Session: 2026-27)
Course Title: Preventive and Social Medicine
Course Code: BMLL- 2486
(THEORY)

Course Outcomes

After passing this course the student will be able to:

CO1: Describe epidemiology and primary healthcare.

CO2: Understand various types of pollution and Biomedical waste management rules.

CO3: Gain knowledge about communicable, non-communicable diseases and its prevention.

CO4: Understand concepts and principles of public health, disease prevention and health promotion.

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
Bachelor of Medical Laboratory Science (Semester–II)
(Session: 2026-27)
Course Title: Preventive and Social Medicine
Course Code: BMLL- 2486
(THEORY)

Time: 3 Hours

Total Marks: 50

Credits: 2-0-0

Theory: 35

CA: 15

Instructions for paper setter:

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions of section A-D should be set from Units I-IV of the syllabus respectively. Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section. Each question carries 14 marks.

Unit- I

Basic Epidemiology: Epidemiological Triad, Carrier, Reservoir, Host for infection and diseases, Various methods of disinfection used at each level of healthcare, Incubation period, Nosocomial Infections

Primary Health Care: Principles, Elements, Health Programmes - Maternal and Child Health, Nutrition, Environment, older adults, Central Government Health Schemes, Occupational Health, Voluntary Health Agencies, Role of NGOs in the Health Team

Unit- II

Demography and Family Welfare: Definition, Demographic cycle, Population Explosion, Factors influencing population growth, death rate, birth rate, and methods of contraception. Family Welfare – Definition, Objectives of Family Planning. Types: Temporary and Permanent methods, Follow-up of contraceptive methods, Family planning counselling.

Environmental Health: Air Pollution, Noise Pollution, Water Pollution, with the causes, effects, and preventive measures.

Solid Waste Management: Swachh Bharat Abhiyan, Nirmal Bharat Abhiyan. Biomedical Waste Management Rules 2016 - colour coding and disposal into correctly colour-coded bags. Disease Elimination and Disease Eradication: Examples.

Unit- III

Communication and Health Education: Health education–definition, principles, objectives, purpose, types, and AV aids. Communication–definition, process, and types. Behavioural change communication. IEC (Information, education, and

communication): aims, scope, concept, and approaches. First-aid–Definition, Principles, Golden rules, and bandages. First-aid for fracture, bleeding, drowning, Convulsions, Foreign Bodies, poisoning, Shock, and CardioPulmonary Resuscitation. Role and skill of health professional in Health Education; Interpersonal relationship: coordination and cooperation in health education with other members of the health team.

Unit- IV

Patient care in Communicable Diseases: Care of patients with communicable diseases, Isolation methods, Standard safety measures (Universal precautions). Role and skill of the Health professional in the management of patients with communicable diseases.

Books Recommended:

1. Textbook of Preventive and Social Medicine – J.E.Park
2. Manual for Laboratory Technician – 1985. DGHS, Ministry of Health, Govt of India

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
Bachelor of Medical Laboratory Science (Semester–II)
(Session: 2026-27)
Course Title: Entrepreneurship Mindset-II
Course Code: USEP-0002
(PRACTICAL)

Course Outcomes

After passing this course the student will be able to:

CO1: Launch and manage a business within their chosen track.

CO2: Identify profitable opportunities and develop innovative solutions.

CO3: Implement marketing and sales strategies using both digital and traditional methods.

CO4: Use financial metrics to track performance and make informed business decisions.

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
Bachelor of Medical Laboratory Science (Semester–II)
(Session: 2026-27)
Course Title: Entrepreneurship Mindset-II
Course Code: USEP-0002

Time: 3 Hours

Total Marks: 50

Credits: 0-0-2

Practical: 50

Recap Milestone

The recap milestone focuses on revising all the 12 milestones of semester 1 and also helps students understand the upcoming 12 milestones journey of semester 2.

Milestone #	Milestone Name	Milestone Description	Task #	Task Title	Activity title
Recap	Recap and Introduction	Revise what you learned in Semester 1 and plan what you will do in Semester 2	1	Revise first 12 milestones of Semester 1	Watch a video on "Semester 1 summary"
					Download 12 summary cards of Semester 1 milestones
					Write 3 key learnings of Semester 1
					Write 3 things you will improve in semester 2
					Attempt Semester 1 Recap Quiz
			2	Set your goals for Semester 2	Learn how to 4X your revenue in Semester 02 using Marketing
					Read how famous brands use marketing to increase revenue
					Set your marketing goals
					Attempt Semester 2 Readiness Quiz

Milestone 13: Marketing Fundamentals

Marketing Fundamentals milestone focuses on helping students understand the basics of marketing and how they can use marketing to scale their businesses and generate revenue.

Milestone #	Milestone Name	Milestone Description	Task #	Task Title	Activity title
13	Learn marketing fundamentals to scale your business	Learn how you can use multiple types of marketing to scale your business and grow your revenue	1	Understand what is marketing	Watch a video on marketing fundamentals
					Read examples of famous marketing campaigns in India
					Explain what you learned about marketing
					Attempt task 01 quiz
			2	Learn different types of digital marketing	Watch a video on what is digital marketing
					Read a document on types of digital marketing
					Write what what kind of digital marketing works best for your business and why
					Attempt task 02 quiz
			3	Write 3 marketing ideas for your business	Read a document on how businesses like yours are using marketing to generate revenue
					Write 3 marketing ideas to scale your business
					Validate your ideas with 3-5 people
					Shortlist the best idea and explain how it will generate revenue
					Share your experience of doing this milestone
					Attempt task 03 quiz

Milestone 14: WhatsApp Community Marketing

WhatsApp Community Marketing milestone focuses on helping students learn how to build a WhatsApp community for their users and use it to generate trust, engagement, and sales.

Milestone #	Milestone Name	Milestone Description	Task #	Task Title	Activity title
14	Build and activate your WhatsApp community	Build a WhatsApp community for your users and use it to generate trust, engagement, and sales	1	Create your WhatsApp community	Watch a video on why you should build a WhatsApp Community
					Read a document on how to create a WhatsApp community
					Enter the name of your community
					Upload your WhatsApp community link
					Attempt task 01 quiz
			2	Invite people to join your WhatsApp community	Read a few sample invite and welcome messages
					Draft an invite message to invite 50 people to join your community
					Draft a welcome message for your community members
					Upload a screenshot of your welcome message
					Attempt task 02 quiz
			3	Engage your community users and start building trust	Learn 'how to engage people in your community'
					Read top 10 community engagement ideas for your business
					Write 5 types of content to post weekly in your community
					Create and upload your weekly calendar
					Attempt task 03 quiz
			4	Get 3 sales from your WhatsApp Community	Learn how to do soft-selling on community
					Create a community-only offer
					Learn how to convert interested people into paid customers
					Write a simple plan to generate 3 sales per month from the community
					Share your experience of doing this milestone
					Attempt task 04 quiz

Milestone 15: Generating Content for Marketing using AI

AI-led Content creation and marketing milestone focuses on helping students learn how to use AI tools to generate creative ideas and create professional videos, posters, and blogs

Milestone 16: Social Media Marketing

Social Media Marketing milestone focuses on helping students learn what social media marketing is and how to create a social media weekly plan that engages users and improves brand visibility.

Milestone #	Milestone Name	Milestone Description	Task #	Task Title	Activity title
16	Plan your social media marketing strategy	Learn what is social media marketing and how can you execute it to scale your business	1	Learn what is social media marketing	Watch a video on "Introduction to Social media marketing"
					Learn different types of social media marketing
					Read a document on how to use social media marketing to generate revenue
					Write your understanding of social media marketing
					Write one social media marketing idea for your business
					Attempt Task 01 Quiz
			2	Research your competitors	Learn how to research your competitors
					Find your competitors
					Write top 3 things your competitors are posting
					Find one unique gap that you can capture
					Attempt task 02 quiz
			3	Finalize your content pillars	Watch a video on 'what are content pillars'
					Read examples of 'content pillars'
					Write 5 content pillars for your social media strategy
					Attempt task 03 quiz
			4	Create your weekly social media plan	Watch a video on 'how to create a weekly social media plan'
					Look at examples of 'social media calendar'
					Create and upload your weekly calendar
					Upload the link of your Instagram Channel
					Share your experience of doing this milestone
Attempt task 04 quiz					

Milestone 17: Trust-led Marketing

Trust-led Marketing milestone focuses on helping students build trust through social media proofs, testimonials, or basic engagement and later converting them into leads and sales.

Milestone #	Milestone Name	Milestone Description	Task #	Task Title	Activity title
17	Generate leads and turn them into sales	Use testimonials, conversations, and daily posts to generate leads and close sales.	1	Use social proof to build trust	Identify 2 happy customers
					Create a testimonial post with CTA
					Post testimonial on social media
					Post testimonial on the community
					Attempt task 01 quiz
			2	Make people share their problems	Learn how to ask open-ended questions
					List 5 customer problems
					Post these problems in community and social media
					Evaluate top 2 problems customers face
					Encourage people to share their problems
			3	Help your users with 3-5 days content sprint and generate leads	Attempt task 02 quiz
					Brainstorm or use AI to create a solution document for each problem
					Post solution to 1 problem on a daily basis
					DM people to check if your solution is helping them
					Write how many leads did you generate
			4	Convert leads into sales	Attempt task 03 quiz
					Learn how to convert leads into sales
					Soft sell your offering in community and social media
					DM people how can your product help them better
					Follow up after 24 to 48 hours
Write how many leads you converted into sales					
Share your experience of doing this milestone					
Attempt task 04 quiz					

Milestone 18: Viral/Trend Marketing

Viral Marketing milestone focuses on helping students learn how to launch viral campaigns for their businesses using the latest trends and make their brand go viral without spending any money.

Milestone #	Milestone Name	Milestone Description	Task #	Task Title	Activity title
18	Make your brand go viral	Design viral marketing campaigns to reach 5X users without spending any money	1	Learn viral marketing	Understand what is virality and how it works
					Read about top 10 viral marketing campaigns in India
					Write 3 reasons why people share content
					Attempt task 01 quiz
			2	Design 2 viral campaigns for your business	Learn 5 types of common viral marketing strategies
					Read 10 viral marketing ideas for your business
					Design 2 viral campaigns for your business
					Take feedback from people and finalize one campaign
					Set your campaign targets
					Attempt task 02 quiz
			3	Launch one viral campaign to increase customer reach	Create your campaign launch video or poster
					Create your campaign launch message
					Launch your campaign on your social media platform
					Launch your campaign in your WhatsApp community
					Attempt task 03 quiz
			4	Promote your campaign to make it viral	Share your campaign in other groups and forums
					Measure your campaign performance
					Learn how to improve your campaign
					Analyze your campaign and record final metrics
					Enter the summary of your campaign
					Share your experience of doing this milestone
					Attempt task 04 quiz

Milestone 19: BTL/Offline Marketing BTL/Offline Marketing milestone focuses on helping users learn about BTL (below the line) or offline marketing and use it to reach out to local customers and generate revenue.

Milestone #	Milestone Name	Milestone Description	Task #	Task Title	Activity title
19	Drive revenue through offline/BTL marketing	Use offline activities to reach local customers and generate sales	1	Understand offline or BTL marketing	Watch a video on what is BTL marketing
					Read about famous BTL marketing campaigns
					Write how you can use BTL marketing for your business
					Attempt task 01 quiz
			2	Pick your offline marketing idea	Learn about common offline tactics for your business
					Write 1 offline marketing idea you can execute
					Design your brand poster for offline marketing
					Create your offline marketing offer or pitch
					Practice your pitch with friends and take feedback
					Attempt task 02 quiz
			3	Execute offline marketing in local market	Identify people or locations in local for offline marketing
					Pitch to at least 10 real customers
					Collect contact details for WhatsApp Community invite
					Close at least one sale
					Write your offline marketing metrics
					Share your experience of doing this milestone
					Attempt task 03 quiz

Milestone 20: Collaboration and Affiliate Marketing

Collaboration and Affiliate Marketing milestone focuses on helping users learn about affiliate marketing and how to collaborate with individuals/businesses to reach more customers and generate revenue.

Milestone #	Milestone Name	Milestone Description	Task #	Task Title	Activity title
			1	Understand affiliate marketing and collaboration	Watch a video on what is affiliate marketing
					Read about top collaboration or affiliate marketing campaigns
					Learn 10 common types of collaboration or affiliate marketing for your business
					Pick 3 types that can work for your

20	Grow through collaboration and affiliation marketing	Use partners and affiliates to reach new audiences and generate sales			business
					Attempt task 01 quiz
			2	Design your affiliation model	Learn how to start an affiliation program
					Decide your commission structure
					Write a pitch for partnership
					Attempt task 03 quiz
			3	Finalize one person or business for collaboration	Learn how to find a right partner for collaboration
					Create a list of 5 to 10 people or businesses for collaboration
					Send your partnership pitch to potential partners
					Write the name of one final partner
					Attempt task 03 quiz
			4	Execute the collaboration	Explain how will the partner market your brand
					Post the link or screenshot of successful collaboration
					Respond to new leads within 24 hours
					Close at least one sale
					Attempt task 04 quiz
			5	Measure your collaboration	Write number of leads generated
					Write number of sales closed and revenue generated
					Write what worked and how to improve collaboration
					Share your experience of doing this milestone
					Attempt task 05 quiz

Milestone 21: Advertising Marketing (Meta)

Advertising Marketing milestone focuses on helping users learn how to post a paid ad on Meta (Instagram and Facebook) promoting their business and reach to more users or generate revenue.

Milestone #	Milestone Name	Milestone Description	Task #	Task Title	Activity title
			1	Setup your Meta	Watch a video on why to run ads on Meta
					Learn different types of ads
					Read the guide on Meta Ad account setup

21	Run your first ad on Instagram	Learn how to boost posts or run simple video ads to reach new viewers		Business Suite	Setup your Meta Ad account
					Attempt task 01 quiz
			2	Design your first paid ad	Watch samples of good ad designs for your business
					Finalize your ad objective
					Upload the final draft of your ad with final copy and creatives
					Attempt task 02 quiz
			3	Define your target audience and budget	Watch a video on 'how to target the right people for ad'
					Define your target audience
					Learn how to decide the right budget for your ad
					Decide your final budget
					Attempt task 03 quiz
			4	Launch your ad	Learn how to create and launch your ad
					Create your ad and review ad preview
					Upload the screenshot of launched ad
					Attempt task 04 quiz
			5	Manage incoming leads from ad	Draft a message for incoming leads
					Send draft message to leads within 24 hours
					Pitch your offer to leads and follow up
					Close at least one sale
					Attempt task 05 quiz
			6	Measure your ad performance	Learn metrics to measure ad performance
					Write money spent and leads or impressions
					Mention CPL or CPM
					Write revenue generated and number of sales closed
					Write what worked and how to improve ads in future
					Share your experience of doing this milestone
					Attempt task 06 quiz

Milestone 22: Psychological Marketing

Psychological Marketing milestone focuses on helping users identify psychological triggers like urgency, pricing, and offers, and use them to increase conversions and revenue.

Milestone #	Milestone Name	Milestone Description	Task #	Task Title	Activity title
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22	Use Psychological Triggers to Increase Sales	Learn how to use urgency, pricing, and offers to increase conversions and revenue	1	Understand the psychological triggers	Learn why people buy products
					Share a story of one product you purchased because of a trigger
					Identify buying triggers for your business
					Attempt task 01 quiz
			2	Execute FOMO or urgency marketing	Learn how to create a FOMO or urgency marketing campaign
					Write how will you create FOMO or urgency for your customers
					Create one FOMO/urgency marketing campaign
					Launch your campaign on social media and community
					Attempt task 02 quiz
			3	Execute one offer or discount marketing campaign	Learn how to create offer or discounting marketing campaigns
					Write how will you create an offer/discount campaign
					Create one offer/discount campaign for your customers
					Launch your campaign on social media and community
Share your experience of doing this milestone					
Attempt task 03 quiz					

Milestone 23: Data-Driven Marketing

Data-Driven Marketing milestone focuses on helping users analyze the data of the last 10 milestones and run specific campaigns or ideas that resulted in lead generation or revenue.

Milestone #	Milestone Name	Milestone Description	Task #	Task Title	Activity title
23	Use Data-Driven Marketing to Grow Faster	Analyze data of the last 10 milestones to identify top campaigns or ideas and decide what to continue, improve, or stop.	1	Analyze your marketing data	Learn how businesses make decisions using data
					List 3 things that worked well and why
					List 3 things that didn't work well and why
					Attempt task 01 quiz
			2	Re-execute top performing campaign	Re-execute top 1-2 campaigns for 1 week
					Write how it helped generate leads or revenue
					Attempt task 02 quiz
			3	Improve one low performing campaign and relaunch it	Pick one low performing campaign and write how to improve it
					Improve the campaign and relaunch it
					Measure its performance and see if it was better
					Share your experience of doing this milestone
					Attempt task 03 quiz

Milestone 24: Closure and Next Step

The final milestone focuses on helping users reflect on their learnings and also create an action plan for the next few months to continue to scale and grow their business.

Milestone #	Milestone Name	Milestone Description	Task #	Task Title	Activity title
	Plan your	Document your 12 weeks of learning and	1	Review your progress	List all the ideas you executed
					Write which milestone helped you the most and how
					Write which milestone helped you the least and why
					Write your key learnings from this

24	next growth phase	create a 1 month plan to scale and grow your business			semester
					Create a not-to-do list for your business
					Attempt task 01 quiz
		2	Create your 1 month marketing plan		Learn how to create a 1 month marketing plan
					Set your marketing goal
					Create and upload your 1 month plan to achieve this goal
					Share your experience of doing this milestone
					Attempt final semester quiz

Evaluation Criteria

The evaluation will be conducted by a committee consisting of the class mentor, nodal officer and the principal HOD or his/her nominee.

Evaluation Component	Description	Weightage
Weekly Task Completion	Timely submission of weekly tasks, including activities, reflection prompts, graded quizzes etc	60%
Target Completion	Performance-based evaluation on hitting revenue or Profit targets (e.g., generating Rs 10,000 revenue)	20%
Final Project	A comprehensive project depending the theme of the Semester	20%

Evaluation Mechanism: The score generated by the app will be final.

Weekly Component:

Each week of the course follows a structured format designed to guide students from learning to doing, using simple, mobile-accessible components:

Component	Duration	Description
Action Lab	~4hrs	- Hands-on task on the weekly concept - Includes step-by-step guidance, templates, and worksheets - Ends with a submission (e.g., video, reflection, or proof of action)
Learning Resources	Self-paced	- Videos, short readings, real-life stories, and tools to deepen understanding at their own pace
Check-in	Self-paced	- Quizzes & Reflection prompts

Syllabus Overview for Semester 1-5

Semester	Learning Focus	Learner's demonstration	Revenue Target
1	Setup & Launch	Understand. Create. Start.	Rs 10,000/-
2	Marketing Basics	Engage. Share. Grow.	Rs 40,000/-
3	Operations & Scale	Earn. Deliver. Expand.	Rs 80,000/-
4	Organic Growth	Attract. Retain. Build.	Rs 160,000/-
5	AI Automation & Finance mastery	Simplify. Track. Sustain	Rs 400,000/-

Semester 1: Setup & Launch

In Term 1, students will explore what entrepreneurship means and how it connects to their daily lives. They will learn to identify problems, shape simple business ideas, and test the minimal settings. This semester builds the foundation—mindset, observation, value creation, and action.

Semester 2: Marketing Basics

In Term 2, students will learn how to attract customers and grow their visibility using digital platforms and community-based marketing strategies. Students will

also begin to run paid advertising campaigns and learn how to optimize their marketing efforts.

Semester 3: Operations & Scale

This semester focuses on the day-to-day operations of running a business, including order fulfillment, customer service, and logistics. Students will also focus on scaling operations as demand grows, with an emphasis on managing resources effectively.

Semester 4: Organic Growth

Students will learn how to grow their businesses organically, using referrals, partnerships, and community engagement. This semester focuses on building a loyal customer base and using word-of-mouth marketing to increase reach and credibility.

Semester 5: AI Automation & Financial Mastery

The final semester prepares students for long-term sustainability. Students integrate AI to improve productivity, automate routine tasks, and enhance decision-making. They also dive deep into financial planning, learning to set income goals, track expenses, understand profit margins, and create simple financial forecasts. This semester helps students solidify their entrepreneurial identity design systems for financial stability and scalability.

Books Recommended:

- Simon Sinek, *Start with Why: How Great Leaders Inspire Everyone to Take Action*, Portfolio/Penguin
- Eric Ries, *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*, Crown Business
- Jonah Berger, *Contagious: How to Build Word of Mouth in the Digital Age*, Simon & Schuster
- Phil Knight, *Shoe Dog: A Memoir by the Creator of Nike*, Scribner
- Jason Fried and David Heinemeier Hansson, *Rework: Change the Way You Work Forever*, Crown Business
- Héctor García and Francesc Miralles, *Ikigai: The Japanese Secret to a Long and Happy Life*, Penguin Books
- Tim Ferriss, *Tools of Titans (Selected Chapters)*, Houghton Mifflin Harcourt
- Peter Thiel and Blake Masters, *Zero to One: Notes on Startups, or How to Build the Future*, Crown Business
- Anil Lamba, *Romancing the Balance Sheet*, Anil Lamba Publications
- The Better India/Your Story, *Young Entrepreneurs Series*
(Collection of Articles) Real Indian stories of youth starting businesses, snackable reads that show what's possible.

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
Bachelor of Medical Laboratory Science (Semester–II)
(Session: 2026-27)
Course Title: Fundamentals of Hematology Lab
Course Code: BMLP- 2487
(PRACTICAL)

Course Outcomes

After passing this course the student will be able to:

- CO1: Perform basic hematological laboratory investigation and assess laboratory data according to safety protocol.
- CO2: Gain knowledge about sample transport, processing and storage.
- CO3: Estimate RBC, WBC count and platelet count.
- CO4: Estimate bleeding and clotting time.

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Bachelor of Medical Laboratory Science (Semester–II)
(Session: 2026-27)

Course Title: Fundamentals of Hematology Lab

Course Code: BMLP- 2487

(PRACTICAL)

Time: 3 Hours

Total Marks: 50

Credits: 0-0-2

Practical: 35

CA: 15

1. Demonstrate laboratory safety and biomedical waste management
2. Pre-analytical variables in clinical Laboratory: Patient and test request form identification, Patient preparation for phlebotomy, Sources of error in venous blood sample collection
3. Sample transport, processing, Sample acceptance and rejection criteria
4. Perform blood collection and demonstrate the order of draw
5. Estimation of hemoglobin by Drabkin's method
6. Perform Packed Cell Volume
7. Perform ESR by the Westergren method
8. Stain and examine the blood smear using Romanowsky stain
9. Perform Differential Leucocyte Count
10. Perform RBC count
11. Perform WBC count
12. Perform Absolute Eosinophil count
13. Perform Platelet count
14. Calculation of Red Cell Indices
15. Perform Bleeding Time and Clotting Time
16. Operate automated cell counters and interpret results
17. Perform Reticulocyte count

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
Bachelor of Medical Laboratory Science (Semester–II)
(Session: 2026-27)
Course Title: Basics of Biochemistry Lab
Course Code: BMLP- 2488
(PRACTICAL)

Course Outcomes

After passing this course the student will be able to:

CO1: Understand about laboratory apparatus, glassware and its uses.

CO2: Understand about pH of biological samples.

CO3: Estimate qualitative analysis of carbohydrates and its identification.

CO4: Perform qualitative analysis of proteins, amino acids and lipid solubility test.

Kanya Maha Vidyalaya, Jalandhar (Autonomous)
Bachelor of Medical Laboratory Science (Semester–II)
(Session: 2026-27)
Course Title: Basics of Biochemistry Lab
Course Code: BMLP- 2488
(PRACTICAL)

Time: 3 Hours

Total Marks: 50

Credits: 0-0-2

Practical: 35

CA: 15

1. Demonstrate the use of Laboratory Apparatus, Micropipettes, and their uses
2. Demonstrate cleaning of glassware
3. Demonstrate the use of a laboratory balance
4. Prepare and label common Laboratory reagents (Percentage, Molarity, Normality)
5. Preparation of distilled water, double-distilled water, and deionised water.
6. Measure pH for laboratory reagents/ biological samples
7. Perform qualitative analysis of carbohydrate and identification of unknown carbohydrate- Molisch test, Benedict test, Modified Bareford test, Seliwanoff test, Bial test, Mucic acid test, Iodine test, Foulger's test, osazone test
8. Perform qualitative analysis of protein and amino acids- Precipitation test - Heat and acetic acid Test, Heller's test, alkali, alcohol, Isoelectric point precipitation. Colour reaction – Ninhydrin, Nitroprusside test, Xanthoproteic test, Million test, Sakaguchi test
9. Perform qualitative analysis of lipids – Solubility test