Para medical program			
Specialization Midwifery			
Course Number	020804121		
Course Title	Midwifery Care 1		
Credit Hours	(3)		
Theoretical Hours	(3)		
Practical Hours	(0)		

midwifery history, legal and ethical issues, and professionalism counseling terminology related to midwifery and anatomy and physiology of reproductive organs. Embryonic and fetal development and students will be oriented to the concepts of primary health care PHC and reproductive health in order to reach their optimum health care during antenatal period.

And to assess Physiological, psychological adaptation to pregnancy.

Course Objectives:

Upon the completion of the course, the student will be able to:

- 1. Review the history and concepts of midwifery.
- 2. Acquire knowledge about the legal and ethical considerations related to maternity care.
- 3. Describe the terms and abbreviations related to midwifery.
- 4. Explain the concepts of primary health care.
- 5. Discuss the concepts related to reproductive health.
- 6. Recognize the anatomical and physiological features of the reproductive organs.
- 7. Discuss the importance of preparing for pregnancy and preparations of couples for Parent hood.
- 8. Describe and interpret the physiological and psychological changes during pregnancy.
- 9. Explain the minor disorders of pregnancy and advices recommended for pregnant.
- 10. Recognize the importance of antenatal care to provide optimal maternal health.
- 11. Discuss the concepts of counseling and screening.

12-assess the factors affecting sexual behaviors and sexual activities in the Arab culture .

Time Needed	Unit Content	Unit Name	Unit Number
1.	Introduction	Brief History of midwifery.Concepts of midwifery.Terminology.	

2.	Anatomy And Physiology Of Reproductive System.	 Abbreviations. Concepts of primary health care. Concepts of reproductive health. Ethical and legal issues. Functions of female pelvis. Bony pelvis and pelvic capacity. Pelvic joints. Pelvic ligaments. Pelvic floor soft tissues. Uterine blood supply and nerve supply. Hormones. Menstrual cycle. Anatomic physiological sexual maturation of female and male organs. Fertilization Conception.
3-	Fetus And Placenta	 Embryonic development. Placenta development and abnormalities. Function, origin, volume and constituents of amniotic fluid. Fetal development, fetal growth. Fetal circulation. Fetal skull, bone, suture, fontanels and measurement. Fetal and pelvic relationship.
4-	Preparing For Pregnancy	 Preconception care. Pre-existing medical conditions and drug. Environmental factors. Counseling medical, genetic, obstetric nutritional disorders. Assisted conception techniques. Investigations methods .

 Maternal adaptation to pregnancy. Physiological changes. Cardio vascular. Respiratory system. Neurological system. Dental change. Dernatological system (Skin changes). Urinary system. Endocrine system. Gastrointestinal. Musculoskeletal system. Reproductive system. Maternal weight. Breast changes. Psychological changes. 	5-	 Sign and symptoms of pregnancy. 	Presumptive signs.Probable signs.Positive signs.
	6-		 Cardio vascular. Respiratory system. Neurological system. Dental change. Dermatological system (Skin changes). Urinary system. Endocrine system. Gastrointestinal. Musculoskeletal system. Reproductive system. Metabolism changes. Maternal weight. Breast changes.

			_
7-	Antenatal care	 Definition and Aims of antenatal care. The initial assessment (Booking visits). History (Medical and obstetrical) and advices. Knowledge of Adolescent pregnancy effects on health & development. 	
		 Specialized antenatal investigation. Fetal Assessment. invasive and noninvasive diagnostic tests. Fetal well being. Assessment and management for minor disorders in First trimester. 2nd trimester. 3rd trimester. Examinations of woman general examination Head and neck. Breast exam. Lower limbs. Abdominal examination , the aim, method, and finding. Assessment of high risk pregnancy. 	
8-	Sexual behaviors and activity	Assessment of prevalent values and practices associated with sexual activity: • Marriage. • Rapes. • Body image. • Gender inequality. • Female circumcision.	

Evaluation Strategies:

	Percentage	Date
idterm xam	40%	//
		idterm 40%

	Final Exam	50%	//
Homework and Projects Discussions and lecture Presentations		10%	

Teaching Methodology:

Text Books

References:

- 1. Marshall, J. E., & Raynor, M. D. (2014). Myles' Textbook for Midwives E-Book. Elsevier Health Sciences.
- Ross, L. M. (2016). Atlas of anatomy (Vol. 3). A. M. Gilroy, & B. R. MacPherson (Eds.). New York, NY, USA: Thieme.
- 3. Permezel, M., Walker, S., & Kyprianou, K. (2015). Beischer & MacKay's Obstetrics, Gynaecology and the Newborn. Elsevier Health Sciences.
- 4. Medforth, J., Ball, L., Walker, A., Battersby, S., & Stables, S. (Eds.). (2017). Oxford Handbook of Midwifery 3e. Oxford University Press.
- 5. Ricci, S. S. (2013). Essentials of maternity, newborn, & women's health nursing. Wolters Kluwer Health Lippincott Williams & Wilkins.
- 6. Alden, K. R., Lowdermilk, D. L., Cashion, M. C., & Perry, S. E. (2013). Maternity and Women's Health Care-E-Book. Elsevier Health Sciences.
- 7. Johnson, R., & Taylor, W. (2016). Skills for Midwifery Practice E-Book. Elsevier Health Sciences.
- 8. Tharpe, N. L., Farley, C. L., & Jordan, R. G. (2016). Clinical practice guidelines for midwifery & women's health. Jones & Bartlett Learning.

9-Emergencies Around Childbirth: A Handbook for Midwives, Third Edition Jul 28, 2016, by Maureen Boyle.

10-Maternal and Child Health Nursing: Care of the Childbearing and Childrearing Family Oct 16, 2013, by Dr. Adele Pillitteri PhD RN PNP.

Para medical program		
Specialization	Midwifery	
Course Number	020804122	
Course Title	Midwifery Care 1 / Practical	
Credit Hours	(2)	
Theoretical Hours	(0)	
Practical Hours	(6)	

Brief Course Description:

The clinical course of midwifery care (1) practice is designed to apply the basic concepts had been studied in the theory part with the emphasis on the provision of primary health care PHC and reproductive health (RH) to assist individuals, families and communities to reach their optimal health.

Course Objectives:

Upon the completion of the course, the student will be able to:

- 1. Apply concepts related to primary health care.
- 2. Apply concepts related to reproductive health.
- 3. Assess the physiological changes during pregnancy.
- 4. Provide the appropriate actions for the physiological changes during pregnancy
- 5. Assess and evaluate the minor disorders of pregnancy.
- 6. Implements the appropriate action for minor disorders of pregnancy.
- 7. Carry out the appropriate antenatal care.

Number Unit	Unit Name	Unit contents	Hours Number
1.	Preparing for	Counseling:	
	Pregnancy.	 Medical. Genetic. Obstetric. Screening: Medical. Nutritional. 	
2-	Care for Care for physiological changes during pregnancy.	 Cardiovascular changes. Respiratory changes. Renal changes. Skin changes. Endocrine changes. 	

3- Assessment and Management of Minor disorder of Pregnancy.	 Gastrointestinal changes. Breast changes. Musculoskeletal changes. Psychological changes. Nausea and vomiting. Heart burn. Palytism. Pica. Constipation. Backache. Frequency of micturation. Leucorrhea. Fainting. Varicoisitis.
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Number Unit	Unit Name	Unit Contents	Hours Number
4-	Management Of Disorder Which Require Immediate Care.	 Vaginal bleeding. Chills and fever. High blood pressure. Reduced fetal movement. Epigastic pain. Recurrent headaches. Rupture membranes. Sudden Swelling (face ,upper limb, pre orbital) 	
5-	Conducting antenatal care.	 Initial assessment "booking visit". Taking maternal history. Physical examination. Abdominal examination. Nutrition during antenatal period. Body care during antenatal period. 	

Evaluation Strategies:

Evaluation	Percentage	Date
Midterm exam	30%	//
		/
Teacher evaluation	20%	//
		//
Final Exam	50%	//

Teaching Methodology:

 $\square @ Demonstration at lab.Clinical area practice.$

Text Books & References:

References :

- 1. Marshall, J. E., & Raynor, M. D. (2014). Myles' Textbook for Midwives E-Book. Elsevier Health Sciences.
- 2. Ross, L. M. (2016). Atlas of anatomy (Vol. 3). A. M. Gilroy, & B. R. MacPherson (Eds.). New York, NY, USA: Thieme.
- 3. Permezel, M., Walker, S., & Kyprianou, K. (2015). Beischer & MacKay's Obstetrics, Gynaecology and the Newborn. Elsevier Health Sciences.
- 4. Medforth, J., Ball, L., Walker, A., Battersby, S., & Stables, S. (Eds.). (2017). Oxford Handbook of Midwifery 3e. Oxford University Press.
- 5. Ricci, S. S. (2013). Essentials of maternity, newborn, & women's health nursing. Wolters Kluwer Health Lippincott Williams & Wilkins.
- 6. Alden, K. R., Lowdermilk, D. L., Cashion, M. C., & Perry, S. E. (2013). Maternity and Women's Health Care-E-Book. Elsevier Health Sciences.
- 7. Johnson, R., & Taylor, W. (2016). Skills for Midwifery Practice E-Book. Elsevier Health Sciences.
- 8. Tharpe, N. L., Farley, C. L., & Jordan, R. G. (2016). Clinical practice guidelines for midwifery & women's health. Jones & Bartlett Learning.
- 9-Emergencies Around Childbirth: A Handbook for Midwives, Third Edition

Jul 28, 2016, by Maureen Bo D-Maternal and Child Health N Oct 16, 2013, by Dr. Adele Pill	ursing: Care of the Childbearing a	and Childrearing Family
David		
Para	medical program	
Specialization	Midwifery	
Course Number	020804221	
Course Title	Midwifery Care 2	
	(3)	
Credit Hours		
Credit Hours Theoretical Hours	(3)	

Brief Course Description:

This course is designed to assist student midwifery to deal with high risk condition during antenatal period, provide basic knowledge and skills that need during labor and puerperium period for mother and her baby and the importance to deliver in hospital in presence of any high risk factor, also to deal with normal labor and puerperium and the role of the midwife in family planning services.

Course Objectives:

Upon the completion of the course, the student will be able to:

- 1- Recognize the high risk conditions during antenatal period.
- 2. Describe the normal physical and psychological changes that take place during each stage of labor.
- 3. Discuss assessments performed during each stage of labor.
- 4. Identify nursing diagnoses related each stage of labor.
- 5. Identify the appropriate midwifery interventions used during each stage of labor.
- 6. Discuss the normal physiological psychological changes during puerperium.
- 7. Determine the midwifery care that provide for client during normal puerperium.
- 8. Discuss the minor disorders during puerperium.
- 9. Discuss high risk conditions during puerperium.
- 10. Discuss family planning strategies.

Unit Number	Unit Name	Unit Contents	Hours
1-	High risk condition during antenatal period	 Bleeding in early pregnancy : Abortions. Ectopic pregnancy. Gestational trophoblastic disease. Other cause of bleeding in early pregnancy. Ante partum hemorrhage(late bleeding): Abruptio placenta. Placenta previa. Abdominal pain in early pregnancy. 	
2-	Normal labor.	Definition of normal labor process.Components of labor.	
		 Stages of labor. Physiological changes in all stage of labor. Psychological changes in all stage of labor. Causes of onset . Sign and symptoms of labor. Bishops score. Duration. Partograph and monitoring (CTG). Pain control. Mechanism of labor. 	
3-	Normal puerperium.	 Medical and midwifery management. Definition. Physiological changes. psychological changes. Minor disorders. Midwifery care and management. 	
4-	High risk conditions During Postnatal period.	 Post partum hemorrhage P.P.H. Primary P.P.H. Retained placenta. Trauma as cause of hemorrhage. Secondary P.P.H. Hematoma formation. 	

 Nursing care for mother in P.P.H. Overview of puerperal infection and causative agent. Psychological maladaptation and psychiatric disorders to post natal period. The role of the midwife in family planning and related issues. Contraceptive method. Hormonal method. Intrauterine contraceptive device (ICUD) Barrier methods. Spermicidal creams, Jellies, aerosols, films, vaginal tublets. Natural methods. Male and female sterilization. Emergency and postcoital contraception. Family planning services. 	
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Evaluation Strategies:

Exams		Percentage	Date
Exams	Midterm	40%	//
	Exam		
	Final	50%	//
	Exam		

Homework and Discussions an	nd lecture		10%		
Presentation	18				
Teaching M Text Books and	ethodology: class presentatio	on			
	& References				
References:		•			
	/ /		14). Myles' Textboo	k for Midwives E-	Book.
	er Health Scien L. M. (2016). A		/ (Vol. 3). A. M. Gilı	ov, & B. R. MacP	herson
(Eds.).	New York, NY	, USA: Thieme	Э.		
		· · · ·	ou, K. (2015). Beisc vier Health Sciences	•	Obstetrics,
4. Medfo	orth, J., Ball, L.,	Walker, A., Ba	uttersby, S., & Stable University Press.). Oxford
	· · · ·		ernity, newborn, & v /illiams & Wilkins.	vomen's health nur	rsing.
6. Alden	, K. R., Lowder	milk, D. L., Ca	shion, M. C., & Perr	y, S. E. (2013). Ma	aternity and
			vier Health Sciences. cills for Midwifery P	ractice E-Book. El	lsevier
Health	Sciences.				
-	•		n, R. G. (2016). Clin & Bartlett Learning.	ical practice guide	lines for
9-Emerger	ncies Around Ch	ildbirth: A Hand	dbook for Midwives,	Third Edition	
10-Maternal	Jul 28, 2016, by Maureen Boyle. 10-Maternal and Child Health Nursing: Care of the Childbearing and Childrearing Family				
Oct 16, 201	3, by Dr. Adele	Pillitteri PhD R	N PNP.		
		Para- me	dical program		
	i ai a- incurcai pi ogram				
	Specialization		Midwifery		

Course Number	020804222	
Course Title	Midwifery Care 2/ Practical	
Credit Hours	(2)	
Theoretical Hours	(0)	
Practical Hours	(6)	

Brief Course Description:

This course is complementary to the theoretical part of midwifery 2, It aims to enable the student to apply Knowledge. Skills and attitude required to achieve a comprehensive nursing care through our normal pregnancy, high risk, labor, peurperium & neonatal life and family planning methods.

Course Objectives:

Upon the completion of the course, the student will be able to:

- 1. Utilize the knowledge obtained about reproductive health in providing quality nursing care.
- 2. Demonstrate skills on monitoring different health needs during the childbearing process.
- 3. Apply strategies for comfort and pain control.
- 4. Assessing and managing of first stage of labor.
- 5. Assessing and managing of 2nd stage of labor
- 6. Assessing and managing of 3rd stage of labor.
- 7-Assessing and managing of 4th stage of labor.
- 8. Assessing and managing of peurperuim.
- 9. Assessing and managing woman in risks pregnancy.
- 10. Conducting health education session regarding family planning.

Time Needed	Unit Content	Unit Name	Unit Number
1.	Assessing Health.	Individual Health.Family Health.Health history.	
2.	Assessing High risk condition during antenatal period.	 Management of bleeding in early pregnancy. Management of bleeding in late pregnancy. 	
3-	Conduct and manage in	 Admission and procedure. Physical examination. Investigation. Maternal and fetal well being. 	
4-	first stage physiology and early care.	 The onset of labor. Physiology of the first stage of labor. Recognition of the first stage of labor. Initial examination and care cleanliness and comfort. 	
5-	Management of the First Stage Of Labor	 Records. Information to the family. Environment. Emotional support. Prevention of infection. Position and mobility. Nutrition. Bladder care. Observation: Mother. Progress. Fetus. 	
6-	Pain relief And Comfort In Labor.	 Active management of labor. Perception of pain. Physiology of pain. Psychological support. 	

7-	Physiology and management of second stage of labor.	 Physical care. Techniques which support physiological processes. Psychophysical methods of coping with pain. Alternative methods of pain relief. Physiological Changes. The mechanism of normal labor. Midwifery care. Position. Preparation for delivery. Conducting the delivery. Episiotomy. Perineal care. 	
8-	Physiology And Management Of The third stage of labor. The puerperium.	 Physiological process. Management of the third stage. Delivery of the placenta and membranes. Completion of the third stage. Immediate care. Records. Midwifes role and responsibilities during the posts natal period. The management of post partum care. Planning post partum care. Daily post partum examination and assessment of needs. The "top – To Toe" post natal assessment. 	

10-	High risk condition during Postnatal period. (puerperium)	 Management of Post partum hemorrhage P.P.H. Primary P.P.H. Retained placenta. Trauma as cause of hemorrhage. Secondary P.P.H. Hematoma formation. Nursing care for mother in P.P.H. Overview of puerperal infection and causative agent. Assessment of Psychological maladaptation to post natal period. Management of Post natal emotional and psychological problems.
11-	Family planning.	 The role of the midwife in family planning and related issues. Contraceptive method. Hormonal method. Intrauterine contraceptive device (ICUD). Barrier methods. Spermicidal creams, Jellies, aerosols, films, vaginal tablets. Natural methods. Male and female sterilization. Emergency and Postcoital contraception. Family planning services.

Evaluation strategies.

Evaluation	Percentage	Date
Midterm exam	30%	//
		/
Teacher evaluation	20%	//
		//
Final Exam	50%	//

Teaching Methodology:

Laboratory and clinical practice.

Text Books & References: References

- 1. Marshall, J. E., & Raynor, M. D. (2014). Myles' Textbook for Midwives E-Book. Elsevier Health Sciences.
- 2. Ross, L. M. (2016). Atlas of anatomy (Vol. 3). A. M. Gilroy, & B. R. MacPherson (Eds.). New York, NY, USA: Thieme.
- 3. Permezel, M., Walker, S., & Kyprianou, K. (2015). Beischer & MacKay's Obstetrics, Gynaecology and the Newborn. Elsevier Health Sciences.
- 4. Medforth, J., Ball, L., Walker, A., Battersby, S., & Stables, S. (Eds.). (2017). Oxford Handbook of Midwifery 3e. Oxford University Press.
- 5. Ricci, S. S. (2013). Essentials of maternity, newborn, & women's health nursing. Wolters Kluwer Health Lippincott Williams & Wilkins.
- 6. Alden, K. R., Lowdermilk, D. L., Cashion, M. C., & Perry, S. E. (2013). Maternity and Women's Health Care-E-Book. Elsevier Health Sciences.
- 7. Johnson, R., & Taylor, W. (2016). Skills for Midwifery Practice E-Book. Elsevier Health Sciences.
- 8. Tharpe, N. L., Farley, C. L., & Jordan, R. G. (2016). Clinical practice guidelines for midwifery & women's health. Jones & Bartlett Learning.

9-Emergencies Around Childbirth: A Handbook for Midwives, Third Edition Jul 28, 2016, by Maureen Boyle.

10-Maternal and Child Health Nursing: Care of the Childbearing and Childrearing Family Oct 16, 2013, by Dr. Adele Pillitteri PhD RN PNP.

Para-medical program		
Specialization	Midwifery	
Course Number	020804223	
Course Title	Midwifery care 3	
Credit Hours	(3)	
Theoretical Hours	(3)	
Practical Hours (0)		

Brief Course Description: This course is designed acquire knowledge, skills, attitudes to deal and care for women with medical disorders during pregnancy, complicated labor and complicated puerperium, based on nursing process.

Course Objectives:

Upon the completion of the course, the student will be able to:

- 1. Assess high risk condition during a pregnancy.
- 2. Discuss the high risk conditions during the intra natal period.
- 3-Differentiate between the roles of midwifes in obstetrical emergencies.
- 4. Discuss the high risk conditions during post natal period (puerperium)
- 5. Discuss midwifes role in detecting any deviation through pregnancy, labor, and puerperium.
- 6. Utilize nursing process in detecting high risk conditions through pregnancy, labor, and Puerperium.
- 7-outline basic life support.

Time Needed	Unit Content	Unit Name	Unit Number

1-	Major disorders related to pregnancy.	 Hyper emesis Gravidarum. Disorders of amniotic fluid. Pre – term pre labor rupture of membrane and preterm labor. Multiple pregnancy Obesity or failure to gain weight to pregnancy. Disability and bereavement. 	
2-	High risk conditions during pregnancy.	 Cardiac disease. Respiratory disease. Endocrine disorders: D.M. Thyroid Disorders. Neurological disorders. Epilepsy. Pregnancy induced hypertension. Renal disorders. RH – Iso immunization. Anemia. Teen agar pregnancy. 	

3-	High Risk Conditions During Intranatal Period.	 High risk conditions during intranatal period. Prolonged and disorders or uterine action. Post term pregnancy. Induction and augmentation of labor. Over efficient uterine activity "precipitate labor". Trial of labor. Obstructed labor. Mal position of the occipito posterior position. Male presentation. Face presentation. Brow presentation. Shoulder presentation. Compound lies. Midwifery and obstetric emergency. Cord presentation and cord prolapsed. Shoulder dystocia. Vasa previa. Rupture of uterus. Cesarean delivery. Basic – life support measure. CPR. 	
Evaluation	Strategies: Exams	Percentage	Date

Exams	Midterm	40%	//
	Exam		
	Final Exam	50%	//
Homework and Projects			//
Discussions and lecture		10%	
Presentations			

Teaching Methodology:

Lecture.Discussion.Simulation.Assignments.Lab application.

Text Books & References:

- 1. Marshall, J. E., & Raynor, M. D. (2014). Myles' Textbook for Midwives E-Book. Elsevier Health Sciences.
- Ross, L. M. (2016). Atlas of anatomy (Vol. 3). A. M. Gilroy, & B. R. MacPherson (Eds.). New York, NY, USA: Thieme.
- 3. Permezel, M., Walker, S., & Kyprianou, K. (2015). Beischer & MacKay's Obstetrics, Gynaecology and the Newborn. Elsevier Health Sciences.
- 4. Medforth, J., Ball, L., Walker, A., Battersby, S., & Stables, S. (Eds.). (2017). Oxford Handbook of Midwifery 3e. Oxford University Press.
- 5. Ricci, S. S. (2013). Essentials of maternity, newborn, & women's health nursing. Wolters Kluwer Health Lippincott Williams & Wilkins.
- 6. Alden, K. R., Lowdermilk, D. L., Cashion, M. C., & Perry, S. E. (2013). Maternity and Women's Health Care-E-Book. Elsevier Health Sciences.
- 7. Johnson, R., & Taylor, W. (2016). Skills for Midwifery Practice E-Book. Elsevier Health Sciences.
- 8. Tharpe, N. L., Farley, C. L., & Jordan, R. G. (2016). Clinical practice guidelines for midwifery & women's health. Jones & Bartlett Learning.

9-Emergencies Around Childbirth: A Handbook for Midwives, Third Edition Jul 28, 2016, by Maureen Boyle.

10-Maternal and Child Health Nursing: Care of the Childbearing and Childrearing Family Oct 16, 2013, by Dr. Adele Pillitteri PhD RN PNP.

Para-medical program

Specialization	Midwifery
Course Number	020804224
Course Title	Midwifery Care 3/ Practical
Credit Hours	(2)
Theoretical Hours	(0)
Practical Hours	(6)

Brief Course Description:

This course is designed to assist the student to view the females as a unique individual with special needs the main point of the course is to focus on increasing knowledge in all areas where midwifery shares with other professional health disciplines "communities, hospital settings, and the neonate units".

Course Objectives:

Upon the completion of the course, the student will be able to:

- 1. Manage the high risk condition during pregnancy.
- 2. Assess the high risk conditions during intra natal period.
- 3. Manage the high risk condition during intra natal period.

- 4. Assess the high risk conditions during post natal period.
- 5. Manage the high risk condition during post natal period.
- 6. Assess the high risk condition during perperium.
- 7. Manage high risk condition during perperium.
- 8. Apply the nursing process in detecting, and managing any high risk conditions through pregnancy, labor, and perperium.

Time Needed	Unit Content	Unit	Unit Number	
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1- 2-	Major disorders related to pregnancy High risk condition during pregnancy.	 Hyper emesis Graviaderum. Disorders of amniotic fluid. Pre – term rupture of membrane and preterm labor. Multiple pregnancy. Obesity or failure to gain weight to pregnancy. Disability and bereavement. Cardiac disease. Respiratory disease. Endocrine disorders: D.M. Thyroid Disorders. Neurological disorders. Epilepsy. Pregnancy induced hypertension. Renal disorders. RH – Iso immunization. Anemia. Teen agar pregnancy. 	
3-	High risk conditions during Intranatal period.	 High risk conditions during intranatal period and management. Prolonged and disorders of uterine action. Post term pregnancy. Induction and augmentation of labor. Over efficient uterine activity "precipitate labor". Trial of labor. Obstructed labor. Mal position of the occipito posterior position. Male presentation. 	

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	 Face presentation. Brow presentation Breech presentation. Shoulder presentation Unstable lie and position. Compound lies. 	
	 Midwifery and obstetric emergency. Cord presentation and cord prolapsed. Shoulder dystocia. Vasa previa. Rupture of uterus. Cesarean delivery instrumental delivery. Basic-life support measure CPR. 	

Evaluation Strategies:

Evaluation	Percentage	Date
Midterm exam	30%	//
Teacher evaluation		//
Final Exam	20% 50%	// // //

Teaching Methodology:

Clinical Lab demonstration.Simulation.Assignments.Lab application.

Text Books & References:

- 1. Marshall, J. E., & Raynor, M. D. (2014). Myles' Textbook for Midwives E-Book. Elsevier Health Sciences.
- 2. Ross, L. M. (2016). Atlas of anatomy (Vol. 3). A. M. Gilroy, & B. R. MacPherson (Eds.). New York, NY, USA: Thieme.

- 3. Permezel, M., Walker, S., & Kyprianou, K. (2015). Beischer & MacKay's Obstetrics, Gynaecology and the Newborn. Elsevier Health Sciences.
- 4. Medforth, J., Ball, L., Walker, A., Battersby, S., & Stables, S. (Eds.). (2017). Oxford Handbook of Midwifery 3e. Oxford University Press.
- 5. Ricci, S. S. (2013). Essentials of maternity, newborn, & women's health nursing. Wolters Kluwer Health Lippincott Williams & Wilkins.
- 6. Alden, K. R., Lowdermilk, D. L., Cashion, M. C., & Perry, S. E. (2013). Maternity and Women's Health Care-E-Book. Elsevier Health Sciences.
- 7. Johnson, R., & Taylor, W. (2016). Skills for Midwifery Practice E-Book. Elsevier Health Sciences.
- 8. Tharpe, N. L., Farley, C. L., & Jordan, R. G. (2016). Clinical practice guidelines for midwifery & women's health. Jones & Bartlett Learning.

9-Emergencies Around Childbirth: A Handbook for Midwives, Third Edition Jul 28, 2016, by Maureen Boyle.

10-Maternal and Child Health Nursing: Care of the Childbearing and Childrearing Family Oct 16, 2013, by Dr. Adele Pillitteri PhD RN PNP.

Para-medical program	
Specialization	Midwifery
Course Number	020804231
Course Title	Neonatology
Credit Hours	(3)
Theoretical Hours	2
Practical Hours	3

Brief Course Description:

This course is designed to introduce the student to neonate extrautrine life adjustment & prevent physiologic complications student will have the opportunity to practice newborn immediate assessment, physical & neurological assessment & to identify the alteration in Wellness of new born.

Course Objectives:

Upon the completion of the course, the student will be able to:

- 1. Discuss the newborn immediate extrauterine life adjustment.
- 2. Discuss new born assessment.
- 3. Provide nursing care to newborn baby.
- 4. Describe health problem of newborn.
- 5. Categorize high risk newborn.
- 6. Identify neonate with physical defect.
- 7. Provide nursing care to neonate is health alteration.

Time Needed	Unit Content	Unit Name	Unit Number
1.	Adjustment To Extra uterine Life	 Evaluate immediate adjustment. Routine Delivery Room care. (immediate nursing care of the new born soon after delivery) Physical examination of the new born infant including Apgar score Assessment of gestational age. Thermal Regulation. Neonatal Resuscitation – CPR. Neonatal nutrition. Provide nursing care for new born and family. 	
2.	High Risk Newborn	 Premature baby. Post mature baby. High risk problems: Respiratory distress syndrome (RDS). Meconium Aspiration. Neonatal sepsis, TTN. Infant of diabetic mother. Prenatal asphyxia. Neonatal seizures. Nursing care for high risk new born. 	
3.	Neonatal Hyperbilirubine mia	 Physiological jaundice. Pathological jaundice (Haemolytic diseases, non Haemolytic jaundice). Kernicterus. Nursing care for new born with Hyperbilirubinemia. 	

4.	Metabolic Problems	 Hypoglycemia. Hypocalcaemia. Inborn errors of metabolism. (Phenyl Ketonuria, Galactosemia) Congenital Hypothyroidism. Nursing care for new born with Metabolic Problems.
5.	Birth Injuries	 Classification soft tissue injuries: (Caputsuccedaneum& cephalhematoma). Nerve injuries. Fractures. Birth marks and Erythema toxicum. Nursing care for new born with birth injuries.
6-	Congenital Abnormalities mal formation.	 Malformations of central nervous system. Spina bifida (meningocele, meningomyelocele). Hydrocephalus. Cranial defects. Nursing care for new born with CNS malformation. Skeletal Defects. DDH or CDH (Developmental Dysplasia of the hip or congenital Dislocation & the hip). Club foot. Skeletal limb defects. Nursing care for new born with skeletal defect.

	6-	Congenital Abnormalities Mal formation	 - Cleft - Esop ecolo - Anor Nursing defects. Hernias - Diap - Umb Nursing hernias. Genito Phimos Hyposp Ambigu Nursing Genito- CVS. (O Cyanoti Nursing (Congen Acyano Congen Nursi 	: hragmatic hernia. ilical hernia. care for new born - Urinary Defects. is.	GIT with with CVS. notic,
Eva	aluation Strate	egies: ams		Percentage	Date

Exams	Midterm	50%	//
	Exam		
	Final Exam	50%	//
			//

Teaching Methodology:

Lecture.Discussion.Simulation.Assignments.Lab application.

Text Books & References:

1-Maternal and Child Health Nursing: Care of the Childbearing and Childrearing Family Oct 16, 2013

by Dr. Adele Pillitteri PhD RN PNP [§] 121 ¹⁴ to bu

2-Wong's Nursing Care of Infants and Children, 10e

Oct 9, 2014 by Marilyn J. Hockenberry PhD RN-CS PNP FAAN and David Wilson MS RN C(INC) $^{\rm s}$ 97 $^{\rm 50}$ to bu
Para-medical program		
Specialization	Midwifery	
Course Number 020804241		
Course Title growth and development.		
Credit Hours	2	
Theoretical Hours	2	
Practical Hours	0	

This course is designed to provide students with the knowledge and skills related to growth and development, principles and theories during childhood. Follow up and monitoring of growth and development will be emphasis as essential part of nursing role.

Course Objectives:

Upon the completion of the course, the student will be able to:

- 1. Describe the major trends in growth and development stages.
- 2. Identify the principles of growth and developmental stages.
- 3. Use critical thinking to analyze factors that influence growth and development.
- 4. Value the importance of monitoring child growth and development.
- 5. Explain developmental stage of each age group according to selected theorists: Freud, Erickson, and Piaget.
- 6. Assess a child to determine the stages of child have reached.
- 7. Formulate nursing diagnosis to assist a child in achieving and maintaining normal growth and development.
- 8. Implement nursing care to support normal growth and development pattern.
- 9. Identify national health goals related to growth and development that the nurse can help the nation to achieve.

Detailed Course Description:

Unit Number	Unit Name	Unit	Time Needed
1.	Introduction	 Definition of growth, development. Stages of growth and development Pattern of growth and development Factors affecting growth and development. Theories of growth and development. Psychoanalytical theory Psychosocial theory 	

			
		 Cognitive theory 	
		 Human needs theory 	
		 Theory of moral Development 	
2.	Stages of Growth		
2.	e	 Prenatal. 	
	And Development	 Prenatal and Perinatal problems 	
		affecting development.	
		 Developmental disorders related 	
		to perinatal and prenatal problem:	
		Mental retardation and cerebral	
		pulsy.	
		Infancy period.	
		Toddler hood period.	
		 Preschool period. 	
		1	
		5 6 11001 a5c .	
		Puberty and adolescence.	
		• Early adult hood.	
		 Middle adult hood. 	
3-	Infancy Period	• Late adult hood.	
		 Drugical development in infancy 	
		 Physical development in infancy. Application of cognitive % 	
		 Application of cognitive & 	
		personality development theories	
		in infancy period.	
		Problem asocial.	
		– Dangers fear.	
		– Bonding.	
		 Separation anxiety. 	
		 Thumb sucking and using of 	
		pacifier.	
		 Physical development in toddler 	
		hood.	
		 Application of cognitive & 	
		personality development theories	
4-	Toddler Hood	in toddler hood.	
4-		 Discipline in toddler hood. 	
	Period	 Promoting self – esteem in toddler 	
		hood.	
		 Problem associated. 	
		– Toilet training.	
		C C	
		– Sibling Rivalry.	
		– Temper tantrum.	
		– Negativism.	
		 Physical development in 	
		i nysicar development ill	

5	Drosahaal	preschool age	l
5- 6-	Preschool School Age	 preschool age. Application of cognitive & personality development theories in preschool age. Problem associated with preschool age: Aggression. Speech problems. Fears, Autism. Sleep problems. Physical development in school age. Application of cognitive & personality development theories in school age. Problem associated with school age: Dishonest behavior. 	
7-	Adolescent Period	 Latchkey Children. Fears. Depression Physical development in adolescent period. 	
		 Application of cognitive & personality development theories in adolescent. Sex education. Promoting positive self – esteem in adolescents. Problem associated with adolescent: Obesity. Anorexia nervosa, bulimia. Drug abuse. Tobacco. Alcohol 	

Evaluation Strategies:

Exams		Percentage	Date
Exams	Midterm	40%	//
	Exam		//
	Exam Final	50%	//
Homework and Projects			//
Discussions and lecture		10%	
Presentations			

Teaching Methodology:

• Lecture, Discussion, Small and large group discussion, Assignments, Case studies.

Text Books & References :

1-Maternal and Child Health Nursing: Care of the Childbearing and Childrearing Family Oct 16, 2013 by Dr. Adele Pillitteri PhD RN PNP [§] 121 ¹⁴ to bu

2-Nursing Care of Children: Principles and Practice, 4e (James, Nursing Care of Children) Apr 9, 2012 by Susan R. James PhD MSN RN and Kristine Nelson RN MN ^{\$} 78 ⁰⁵ to buy

3-Wong's Nursing Care of Infants and Children, 10e

Oct 9, 2014 by Marilyn J. Hockenberry PhD RN-CS PNP FAAN and David Wilson MS RN C(INC)

 $^{\$}$ 97 50 to bu

Para-Medical Program			
Specialization Midwifery			
Course Number 020804251			
Course Title Obstetric and Gynecology Diseases			
Credit Hours (3)			
Theoretical Hours (3)			
Practical Hours (0)			

This course should prepare the student to develop in depth understanding the medical conditions which can complicate the child bearing and affect family life and deal with various stage of maternity cycle based on the recognition of the existence of medical and gynecological complications, management, treatment, and need for referral through out maternity care.

Course Objectives:

Upon the completion of the course, the student will be able to:

• Explain the gynecological problems occurring during various stages of maternity cycle (menopause, osteoporosis, and endometriosis genital prolapsed, abnormal development of genital tract, sexually transmitted diseases and pelvic inflammatory diseases).

- Discuss different gynecological operations and anesthesia.
- Discuss the abnormalities during pregnancy.
- Discuss the abnormalities and complication during puerperium (infection).
- Discuss infertility causes and abnormalities associated with assisted pregnancy.

Unit Number	Unit Name	Unit content	Time Needed

1- 2-	Woman's Health Commonly Occurring Infection Women's Health Problem	 Bacterial vaginsois. Vulvo vaginal candidasis. Sexually transmitted infection. (Trichomoniasis chamydial Gonorrhea, Herpes Genitalis, syphilis, viral hepatitis, (AIDS). Pelvic inflammatory disease. TORCHS. Osteoporosis. Benign and malignant breast disorders. Menstrual disorders-the climaterium menopause. Autoimmune diseases. Hepatic disorder. Abdominal pain. Thyroid disorders. 	
Unit Number	Unit Content	Unit Name	Time Needed

3-	Gynecologic surgery and Anesthesia	 Hysterectomy. Dilation and curettage. Salpingectomy. Oophorectomy. Anesthesia.
4-	Special Reproductive Concerns	 Infertility Essential components fertility. Nurse's role during initial investigation. Test's of woman's fertility. Test's of man fertility. Management of infertility. Pregnancy after infertility. Hirsutism and virllism.
5-	Coagulation Disorders	 Denominated intravascular coagulation. Pulmonary embolism. Thrombo embolism. Deep venous thrombosis. Amniotic fluid embolism.
Evaluation Strategies	S:	

Exams		Percentage	Date
Exams	Midterm	40%	//
	Exam		//
	Final Exam	50%	//
Homework and Projects			//
Discussions and lecture		10%	
Presentations			
Teaching Methodology:			

• Lecture. Discussion. Simulation. Assignments. Lab application.

Text Books & References: 1-Anatomy and Physiology for Midwives, 3e Jun 20, 2011 by Jane Coad EIHMS and Melvyn Dunstall EIHMS ^{\$} 55 ⁹⁸ 2-Emergencies Around Childbirth: A Handbook for Midwives, Third Edition Jul 28, 2016 by Maureen Boyle ^{\$} 32⁷ **3-Myles Textbook for Midwives, 16e** May 26, 2014 by Jayne E. Marshall PhD MA PGCEA ADM RM RGN and Maureen D. Raynor MA PGCEA ADM RMN RN RM ^{\$} 66 ³⁹ to bu 4-Essentials of Maternity, Newborn, and Women's Health Nursing Oct 13, 2016 by Susan Ricci ARNP MSN MEd ^{\$} 78²² to buy 5-Anatomy and Physiology for Midwives, 3e Jun 20, 2011 by Jane Coad EIHMS and Melvyn Dunstall EIHMS \$55.98^{\$} 55 6-Olds' Maternal-Newborn Nursing & Women's Health Across the Lifespan (10th Edition) (Maternal-Newborn & Women's Health Nursing (Olds)) Jan 3, 2015 by Michele C. Davidson and Marcia L. London \$122.39^{\$} 122³⁹ 7-Maternal and Child Health Nursing: Care of the Childbearing and Childrearing Family Oct 16, 2013 by Dr. Adele Pillitteri PhD RN PNP

Para-medical program			
Specialization Midwifery			
Course Number	020804291		
تدريب ميداني Course Title			
Credit Hours 6			
Theoretical Hours	(0)		
Practical Hours			

This course the student will apply theoretical knowledge to clinical setting with emphasis on daily management and changing agent role. The student will take full responsibility under the supervision of clinical instructors and midwifery & nurse in change of clinical setting who act as preceptors. The course provides practice essential to assessment, planning, implementation and evaluation of clients in different clinical settings, as well as application of nursing skills related to health promotion, maintenance, restoration, disease prevention and treatment among the

target aggregates. This Training will offer students the opportunity to take full responsibility.

• This course will give the midwife student knowledge, skills attitude in providing physical psychological health care for clients in hospital and community and applying this knowledge, skills and attitude in providing care for mother and child in MCH center.

Course Objectives:

Upon the completion of the course, the student will be able to:

- Integrate knowledge from the biological, physical behavioural and nursing science and humanities in the practice of nursing.
- Demonstrate clinical competency in the assessment, planning, implementation and evaluation of nursing to assist individuals, families, and communities to promote, maintain or regain health.
- Collaborate with other health professionals and consumers in the delivery of health care.
- Accept personal responsibility and accountability for nursing practice.
- Utilize research findings to improve nursing care to individuals, families and communities.
- Serve as a change agent with clients and colleagues to meet changing health need.
- Demonstrate ethical and legal accountability practice in nursing community at different clinical / community setting.
- Evaluate family and community at home visit
- Evaluate the health cases in school and make referral.
- Built therapeutic relationship with clients.
- Evaluate the antenatal care which given for mothers.
- Provide counselling for mothers and family in childbearing and family planing.
- Provide counselling for mothers and family for childbearing and family planning
- prepare mothers for emergency delivery.
- Care of mothers during delivery.
- Provide care for mother and baby after delivery. Provide care for mother during puerperium.

Time Needed	Unit Name	Unit Content	Unit Number
1.	Provide Health Care For Community	 Home visit Clinical investigation. School health and make investigation for students Make referral for health problems Health education session for families and schools. 	

Detailed Course Description:

Exams			Percentage	Date
Exams	Mic	lterm m	30%	//-
	Fina	al exam	50%	//- //-
eacher evaluation Iome works assignme	ent		20%	//_ //_
2. Ante	Natal Care	setting relatedInitial anteLab investClinical ex	enatal care	clinical
Duri 4- Care	Care Of ng delivery. Of Mother delivery.	MonitorinPerpetration	symptoms of labour g mother and baby on of labour.	
Care	of mother assistance	 Counsellir family pla Preparatio C&S 	nning. n for elective and emer – and postoperative ca	ng and gency
Duri	Of Mother ng berum	Home visiBreast feeMonitor c		

Evaluation strategies:		

Teaching Methodology:

The faculty cooperate with preceptor to plan and provide learning situations to meet students training objectives

Text Books & References:

- 1. Marshall, J. E., & Raynor, M. D. (2014). Myles' Textbook for Midwives E-Book. Elsevier Health Sciences.
- Ross, L. M. (2016). Atlas of anatomy (Vol. 3). A. M. Gilroy, & B. R. MacPherson (Eds.). New York, NY, USA: Thieme.
- 3. Permezel, M., Walker, S., & Kyprianou, K. (2015). Beischer & MacKay's Obstetrics, Gynaecology and the Newborn. Elsevier Health Sciences.
- 4. Medforth, J., Ball, L., Walker, A., Battersby, S., & Stables, S. (Eds.). (2017). Oxford Handbook of Midwifery 3e. Oxford University Press.
- 5. Ricci, S. S. (2013). Essentials of maternity, newborn, & women's health nursing. Wolters Kluwer Health Lippincott Williams & Wilkins.
- 6. Alden, K. R., Lowdermilk, D. L., Cashion, M. C., & Perry, S. E. (2013). Maternity and Women's Health Care-E-Book. Elsevier Health Sciences.
- 7. Johnson, R., & Taylor, W. (2016). Skills for Midwifery Practice E-Book. Elsevier Health Sciences.
- 8. Tharpe, N. L., Farley, C. L., & Jordan, R. G. (2016). Clinical practice guidelines for midwifery & women's health. Jones & Bartlett Learning.

9-Emergencies Around Childbirth: A Handbook for Midwives, Third Edition Jul 28, 2016, by Maureen Boyle.

10-Maternal and Child Health Nursing: Care of the Childbearing and Childrearing Family Oct 16, 2013, by Dr. Adele Pillitteri PhD RN PNP

Para-Medical Program

Specialization

Midwifery

Course Number	020800221
Course Title	Principles Forensic Medicine
Credit Hours	(2)
Theoretical Hours	(2)
Practical Hours	(0)

This course is designed to give the student adequate knowledge about the principles of forensic medicine, its link with low and the role of medicine in justice also it Discus the lows which control the medicine & the Danger of Drugs.

Course Objectives:

Upon the completion of the course, the student will be able to:

• A working knowledge of the principles of medical, scientific and technical evidence – gathering and the presentation of such evidence in the courts of law.

- Appreciate both the scope and the limitations of medical and scientific investigation in assisting the courts.
- Give a clear account of the procedures used in death investigation, the role of the Attorney general and the rules governing fatal accident inquiries.
- Construct, form basic scientific and other factual information supplied concerning a scene of death, a logically argued reconstruction of the events leading up to death, indicating what further investigations would be required for a full inquiry of this type.
- Show abasic knowledge of the professional and ethical considerations governing everyday medical practice.

Detailed Course Description:

Unit Number	Unit Name	Unit Content	Time Needed
1-	Introduction of Forensic medicine & Medico legal. Death and Autopsy.	 Definition of forensic. Definition of Autopsy. Definition of medico-legal and death. قانون العقوبات الاردني - 	
2-	Sudden Natural Death	- Body systems implicated in sudden natural death and the proportions of death attributable to disorders of each	

3-	Asphyxia	 system. Major forms of disease which cause sudden natural death and the mechanisms by which they do so. Concept of asphyxia both to Lawyers and to medical practitioners, together with its legal signification. General change associated with asphyxia and the mechanisms by which they operate. Main categories of asphyxia and the 	
Unit Number	Unit Name	circumstances which bring them about Unit Content	Time Needed

4-	Drowning and Immersion	 Mechanisms of death which may have been involved when a body is recovered form immersion. Changes in the human body which occur in immersion. Major tests which may be applied to supports a diagnosis of drowning 	
5-	Thermal injuries & fire Death	 Classification of thermal injuries. Factors which influence survival and disability following thermal Injuries. Mechanisms of death in fires and the common causes of house fires. Tests applied to thermal death. Common heat artifacts seen in Victims of fatal fires. 	
6-	Sexual Offensive.	 Classification. Definition. Rape: Definition of Rape. Examination. قانون العقوبات الاردني المتعلق بالاغتصاب 	
7-	Therapeutic, Criminal Abortion & Infanticide	 Define in simple terms fetus, viability, abortion, stillbirth and infanticide. Major methods of illegal abortion and their likely complications. Main medical signs of live birth and stillbirth. قانون العقوبات الاردني المتعلق بالاجهاض 	

8-	Post mortem Changes	 Methods by which the postmortem interval can be estimated and their limitations. Way in which the body colds after death, I rate of doing so and factors which influence this. Nature and significance of hypostasis cadaveric spasm, rigor ,mortis, putrefaction . Mummification and adipocerous change and the rates at which these phenomena occur. Nature and significance of postmortem injury. 	
		 Nature and significance of hypostasis cadaveric spasm, rigor ,mortis, putrefaction . Mummification and adipocerous change and the rates at which these phenomena occur. Nature and significance 	

9-	Common Injuries	 -Way in which wound Are regarded in law and in medical practice. Definition, mechanism and diagnostic significance of bruises, abrasions, lacerations, incised wounds, stab wounds and fractures and the factors which may modify them. -Distinction between bite marks and oral suction marks. Legal significance ad medical methods of determining the degree of force used in inflicting an injury. 	
10-	Firearms and Firearm Wounds	 Basic principles on which modern firearms work and the major substances emitted by a gun when it fires. Basic principles of determination of the range of fire in rifled and smoothbore firearms. Basic distinguishing features of entry and exit firearm wounds. Basic principles on which determination of accidental, suicidal and homicidal firearm wounding is made. 	

11-	Sudden Infant Death Syndrome (SIDS).	 -Incidence and distribution of SIDS and recent trends in its occurrence. -Causes of sudden unexpected death in infancy. -Risk factors for SIDS. -Main autopsy finding in SIDS. -Main current theories an hypothesis for the cause of SIDS.
12-	Child abuse & Family Violence.	 -Physical. -Define child abuse. -Historical recognition of child abuse. -Clinical, radiological pathological signs, physical child abuse. Major natural conditions which may mimic child abuse. General strategy for dealing with child abuse. Sexual. Define child sexual abuse. Major clinical signs of clinical signs of child sexual abuse. Investigation of a case of suspected child sexual abuse, including the medical examination and laboratory tests.

13-	Medical Confidentiality	 Concept of medical confidentiality, ethical and legal principles which underlie it. Major circumstances in which
		patient confidentiality can be breached in the public interest or on the order of a court.
14-	Medical Malpractice	 Significance of medical registration. Main categories of professional misconduct. Different authorities which investigate the individual's complaints. Incidents and deaths which are apparently associated with lack of medical care. Changing concepts of death.

Evaluation strategies:

Exams	Percentage	Date
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Exams	Midterm	40%	//
	exam		-
		500/	//
	Final exam	50%	-
Teacher evaluation		1.00/	//
Home works assignment		10%	-

Teaching Methodology:

Lacoratory.

Text Books & References:

References:

1-Simpson's Forensic Medicine, 13th Edition

Aug 26, 2011 by <u>Jason Payne-James</u> and Richard Jones \$64.51^{\$} 64 ⁵¹

2-Color Atlas of Forensic Medicine and Pathology, Second Edition (Volume 1)

Mar 2, 2016 by Charles Catanese \$224.95^{\$} 224 ⁹⁵

Para-Medical Program		
Specialization Midwifery		
Course Number	020804111	

Course Title	Biostatistics and Epidemiology
Credit Hours	2
Theoretical Hours	2
Practical Hours	(0)

This course may be benefit for the entire spectrum of people working in the field of health sciences including medicine, public health, nursing, midwifery, and allied health sciences. Although textbooks in epidemiology and in biostatistics are widely available, they are often highly specialized and therefore difficult to use by a wide range of health researchers and scientists. This course is intended to be simple and practical avoiding unnecessary scientific jargon and responding to the actual needs of students and researchers in the field of health sciences. The course starts with basic definition and concepts of epidemiology and biostatistics and their uses and applications. It includes the necessary epidemiological measures to measure morbidity, mortality and fertility in the population and the necessary knowledge to select the appropriate study design to test hypotheses. It extends to descriptive measures and probability concepts. Conditional probability and Bayes theory are

given due emphasis to compute validity indicates for clinical and laboratory tests, i.e. sensitivity, specificity and predictive values for single for tests. The students are trained to draw statistical inferences by two main methods these are: Estimation and Hypothesis testing.

Course Objectives:

Upon the completion of the course, the student will be able to:

- Formulate research question/questions.
- Propose and appropriate research design.
- Draw a representative and appropriate sample from a certain population using the appropriate sampling technique.
- Select appropriate data collection methods.
- Collect, organize, summarize and present data related to health sciences.
- Present data in tables, graphs, and charts as appropriate.
- Estimate population parameters (means and proportions) with high reliability based on the information contained in the sample.
- Test hypothesis about the population parameters.
- Plan and perform the necessary preliminary statistical analysis.
- Interpret his findings and draw valid conclusions.
- Reach decisions about large body of data by examining only a small part of the data.

	Time Needed	Unit Name	Unit Content	Unit Number
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1-	Introduction	Epidemiology:
		-Definition of epidemiology.
		-Types of epidemiology.
		-Descriptive versus analytic
		epidemiology.
		-Scope of epidemiology and its
		uses. • Biostatistics:
		-Definition of biostatistics.
		-Types of biostatistics:
		-Descriptive versus.
		-Inferential biostatistics.
2-	Data Collection	 Types of data. Methods of data collection: Questionnaires. Face to face interviews. Mailed questionnaires. Telephone interviews. Clinical data. Physical examination. Laboratory data.

Time Needed	Unit Content	Unit Name	Unit Number

2	Sample and Population	• Simple random sample.
3-	Sample and Explication	Systematic sample.
		Stratified sample.
		Cluster sample.
		Strengths and
		weaknesses.
		• Sampling error.
		• Sampling bias.
	Frequency Measures	Measures of morbidity.
4-		- Prevalence.
		-Incidence.
		Measures of mortality.
		-Crude death rate.
		- Specific mortality rate.
		- Case fatality rate.
		- Measures of ferity.
_		Cross sectional studies.
5-	Study design.	– Basic design.
		 Strengths and
		weaknesses.
		Case control studies.
		– Basic design.
		- Selection of cases.
		- Selection of
		controls.
		– Analysis.
		- Strengths and
		limitations.
		Cohort studies.
		- Basic design.
		– Analysis.
		- Strengths and
		Limitations.
		Clinical trials.
		– Basic design.
	Study design.	– Essential differences from.
	Study design.	– Observational
		studies.
		 Masking (blinding).
		– Randomization.
		 Placebo control.

6-	Description Statistics.	 Analysis. Strengths and limitations. Measures of central. Tendency and measures of variability.
7-	Descriptive Statistics.	 Tables. Graphs. Charts Key features of data set using graphs
8-	Probability	 Concept of the probity. Properties of probabilities. Application of probabilities in assessment of screening and diagnostic tests.

9- Binomial Distribution		 Difference between continuous and discrete variables. The binomial distribution. Compute the mean and the variance of the binomial distribution.
10-	Normal Distribution	 -Continuous random variables. - Normal distribution. - Standard normal distribution - The percentiles of normal random variables - Convert normal distribution to standard normal distribution.
11-	Estimation of population parameters (mean, proportion)	 Sample data to estimate a population mean, and population proportion. Compute point and interval estimates of the population parameters.
12-	Hypothesis testing	 Statistical hypothesis and Know how to use sample data to test it. difference between the null and the alternative hypothesis. The significance of a rejecting a null hypothesis or not rejecting it. The meaning of level of significance and p value.

	Hypothesis Testing	 Test for population mean when population standard deviation is known. Test for population mean when population standard deviation is unknown. Hypothesis testing. proportion tset. Two sample test (independent, samples). The Importance of using a control in the testing of anew drug a new procedure. Test the equality of two population means when the population variances are known. Test the equality of two population 	
		 means when the population variances are unknown but assumed unequal. Test the two – sample hypothesis using confidence interval approach. 	
13-	Correlation coefficient	 Compute the strength and direction of the linear relationship between two normal variables. Test for the significance of this linear relationship. Correlation measures association, not causation. 	
14-	Chi – Square of independence and homogeneity chi-Square goodness of fit	 Perform chi-square goodness of fit. Perform tests for independence in populations classified according to two characteristics. Test for independence in contingency tables with fixed marginal totals. 	

Evaluation Strategies:

Exams		Percentage	Date
Exams	Midterm	40%	//
	Exam		
	Final Exam	50%	//
Homework and Projects			//
Discussions and lecture		10%	
Presentations			

Teaching Methodology:

□ Lectures Discussions, quizzes and exams Field visits to hospitals Home works and home assignments.

Text Books & References:

1-Principles of Biostatistics with CD

2015 by Marcello Pagano Kimberlee Gauvreau

^{\$} 25 ⁰⁰ \$39.99

2-Biostatistics: A Foundation for Analysis in the Health Sciences

Jan 9, 2013 by <u>Wayne W. Daniel</u> and Chad L. Cross [§] 150 ²⁸ to buy

3-Basic Epidemiology Feb 26, 2007 by R. Bonita and <u>R. Beaglehole</u> ^{\$} 19 ³⁴ to buy