TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.

1. Teaching Institution	Kut technical institute
2. University Department/Centre	Pathological analysis
3. Course title/code	**Medical . Lab. Instrument**
4. Programme(s) to which it contributes	
5. Modes of Attendance offered	Attendance is mandatory
6. Semester/Year	Yearly
7. Number of hours tuition (total)	90
8. Date of production/revision of this specification	22-11-2016
9. Aims of the Course	
The student will be able to Cover and understand all instruments used in medical laboratories .	

10· Learning Outcomes, Teaching ,Learning and Assessment Methode

A- Knowledge and Understanding
A1. the types of instruments used in medical laboratories .
A2. the principle of each one
A3.ueses
A4.
A5.
A6 .

B. Subject-specific skills
B1. the basic parts
B2.operational procedure
B3.mentainance and trouble shooting (care and precautions with instrument)

Teaching and Learning Methods

Laboratories and scientific visits and summer training

Assessment methods

Oral + written + quarterly exams + final

C. Thinking Skills
C1. Lectures
C2. practical skills within the laboratory
C3.
C4.

Teaching and Learning Methods

Theoretical + practical

Assessment methods

Oral + written + practical

D. General and Transferable Skills (other skills relevant to employability and personal development)

D1. Work in government and private medical laboratories
D2.the possibility of completing his studies and obtain the highest certification
D2.
D3.
D4.

11. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1,2,3,4,5	3	Technical diploma	**MICROSCOPES Uses, main parts ,principle of work ,kinds, types of condensers, operation,cleaning,service and maintenance.**	**Theoretical , practical**	**Theoretical , practical and oral**
6,7,8,9	3	=	**BALANCES Uses ,types of balances ,main part ,principle of operation ,operation ,service and maintenance .**	**Theoretical , practical**	**Theoretical , practical and oral**
10	3	=	**EXAMINATION**	**Theoretical , practical**	**Theoretical , practical and oral**
11,12,13,14	3	=	**PHOTOMETRY Introduction ,Light and wave length ,Beer lamberts Law , types of photometers ,main parts , filters ,prisms and diffraction gratings ,principle of operation , operation and maintenance .**	**Theoretical , practical**	**Theoretical , practical and oral**
15,16	3	=	**FLAME PHOTOMETRY Introduction , Uses ,main parts , types , atomizers ,principle of operation ,operation and maintenance.**	**Theoretical , practical**	**Theoretical , practical and oral**
17	3	=	**ATOMIC ABSORPTION SPECTROPHOTOMETERY Introduction ,uses , types, main parts , principle of operation ,operation and maintenance.**	**Theoretical , practical**	**Theoretical , practical and oral**
18	3	=	**EXAMINATION**	**Theoretical , practical**	**Theoretical , practical and oral**
19	3	=	**CENTRIFUGES Uses , types, main parts , principle of operation ,operation and maintenance.**	**Theoretical , practical**	**Theoretical , practical and oral**
20	3	=	**AUTOCLAVES Introduction ,uses , types, main parts , principle of operation , sterilization, operation and maintenance**	**Theoretical , practical**	**Theoretical , practical and oral**
21,22	3	=	**PH METERS Uses , types, main parts ,electrodes , principle of operation ,operation and maintenance.**	**Theoretical , practical**	**Theoretical , practical and oral**
23	3	=	**MICROTOMES Uses , types, main parts ,sharpeners , principle of operation ,operation and maintenance.**	**Theoretical , practical**	**Theoretical , practical and oral**

24	3	=	**ELECTROPHORESIS Uses , types, main parts , principle of operation ,operation and maintenance.**	**Theoretical , practical**	**Theoretical , practical and oral**
25,26	3	=	**HEATING INSTRUMENTS (WATER BATHS ,OVEN & INCUBATION) Uses , types, main parts thermostats, principle of operation ,operation and maintenance.**	**Theoretical , practical**	**Theoretical , practical and oral**
27	3	=	**WATER PURIFICATION (DISTILLATORS & DEAIONIZERS) Distillators ,deionizers, uses, main parts , operation and maintenance.**	**Theoretical , practical**	**Theoretical , practical and oral**
28,29	3	=	**AUTOANALYZERS Introduction ,uses , types, main parts , principle of operation ,operation and maintenance.**	**Theoretical , practical**	**Theoretical , practical and oral**
30	3	=	**EXAMINATION**	**Theoretical , practical**	**Theoretical , practical and oral**

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	1-books (medical instruments) 2-library sources 3-Internet sources
Special requirements (include for example workshops, periodicals, IT software, websites)	Scientific visits to laboratories in hospitals and knowledge of modern equipment
Community-based facilities (include for example, guest Lectures , internship , field studies)	Scientific visits to laboratories in hospitals and knowledge of modern equipment

13. Admissions