

## Program Plan:

### Track: Clinical biochemistry

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College, or Program)
Level 1	CLS 701	ADVANCED TECHNIQUES IN CLINICAL LABORATORY	Required		3 (2+1)	Program
	CLS 702	PROFESSIONAL PRACTICE IN MEDICAL LABORATORY	Required		2 (1+1)	Program
	CLS 703	ADVANCED BIOSTATISTICS	Required		3 (2+1)	Program
	CLS 704	RESEARCH METHODOLOGY	Required		3 (3+0)	Program
<b>Total</b>					<b>11</b>	
Level 2	CLS 711	ADVANCED CLINICAL BIOCHEMISTRY 1	Required	CLS701	3 (2+1)	Program
	CLS 712	BIOCHEMISTRY OF BODY FLUIDS	Required	CLS701	3 (2+1)	Program
	CLS 705	MOLECULAR BASIS OF DISEASES	Required	CLS702	3 (2+1)	Program
	CLS 706	ADVANCED MEDICAL GENETICS	Required	CLS701	2 (2+0)	Program
<b>Total</b>					<b>11</b>	
Level 3	CLS 713	ADVANCED CLINICAL BIOCHEMISTRY 2	Required	CLS711	3 (2+1)	Program
	CLS 714	ADVANCED BIOINFORMATICS	Required	CLS711	3 (2+1)	Program
	CLS 715	ADVANCED MOLECULAR DIAGNOSTICS	Elective	CLS712	3 (2+1)	Program
	CLS 716	ADVANCED TOPICS IN BIOCHEMISTRY AND MOLECULAR BIOLOGY	Elective	CLS711	3 (2+1)	Program
	CLS 707	PROJECT PROPOSAL	Required	CLS704 CLS705 CLS 706	1 (0+1)	Program
<b>Total</b>					<b>11</b>	
Level 4	CLS 708	THESIS	Required	CLS701 CLS702 CLS703 CLS704 CLS705 CLS706 CLS707	6 (0+6)	Program
<b>Total</b>					<b>39</b>	

## Track: Clinical microbiology

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College, or Program)
Level 1	CLS 701	ADVANCED TECHNIQUES IN CLINICAL LABORATORY	Required		3 (2+1)	Program
	CLS 702	PROFESSIONAL PRACTICE IN MEDICAL LABORATORY	Required		2 (1+1)	Program
	CLS 703	ADVACNED BIOSTATISTICS	Required		3 (2+1)	Program
	CLS 704	RESEARCH METHODOLOGY	Required		3 (3+0)	Program
<b>Total</b>					<b>11</b>	
Level 2	CLS 721	ADVANCED CLINICAL MICROBIOLOGY 1	Required	CLS701	3 (2+1)	Program
	CLS 722	ADVANCED IMMUNIOLOGY	Required	CLS701	3 (2+1)	Program
	CLS 705	MOLECULAR BASIS OF DISEASES	Required	CLS702	3 (2+1)	Program
	CLS 706	ADVACNED MEDICAL GENETICS	Required	CLS701	2 (2+0)	Program
<b>Total</b>					<b>11</b>	
Level 3	CLS 723	ADVANCED CLINICAL MICROBIOLOGY 2	Required	CLS 721	3 (2+1)	Program
	CLS 724	VIRUSES AND INFECTIONS	Required	CLS722	3 (2+1)	Program
	CLS 725	ADVANCED TOPICS IN CLINICAL MICROBIOLOGY	Elective	CLS721	3 (2+1)	Program
	CLS 726	ADVANCED TOPICS IN CLINICAL IMMUNOLOGY	Elective	CLS721	3 (2+1)	Program
	CLS 707	PROJECT PROPOSAL	Required	CLS704 CLS705 CLS 706	1 (0+1)	Program
<b>Total</b>					<b>11</b>	
Level 4	CLS 708	THESIS	Required	CLS701 CLS702 CLS703 CLS704 CLS705 CLS706 CLS707	6 (0+6)	Program
<b>Total</b>					<b>39</b>	

## Track: Clinical haematology

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College, or Program)
Level 1	CLS 701	ADVANCED TECHNIQUES IN CLINICAL LABORATORY	Required		3 (2+1)	Program
	CLS 702	PROFESSIONAL PRACTICE IN MEDICAL LABORATORY	Required		2 (1+1)	Program
	CLS 703	ADVANCED BIOSTATISTICS	Required		3 (2+1)	Program
	CLS 704	RESEARCH METHODOLOGY	Required		3 (3+0)	Program
<b>Total</b>					<b>11</b>	
Level 2	CLS 731	ADVANCED CLINICAL HAEMATOLOGY 1	Required	CLS701	3 (2+1)	Program
	CLS 732	BLOOD TRANSFUSION	Required	CLS701	3 (2+1)	Program
	CLS 705	MOLECULAR BASIS OF DISEASES	Required	CLS702	3 (2+1)	Program
	CLS 706	ADVANCED MEDICAL GENETICS	Required	CLS701	2 (2+0)	Program
<b>Total</b>					<b>11</b>	
Level 3	CLS 733	ADVANCED CLINICAL HAEMATOLOGY 2	Required	CLS731	3 (2+1)	Program
	CLS 734	ADVANCED TOPICS IN CLINICAL HAEMATOLOGY	Required	CLS732	3 (2+1)	Program
	CLS 735	BLOOD COAGULATION	Elective	CLS 731	3 (2+1)	Program
	CLS 736	DIAGNOSTIC MOLECULAR HAEMATOLOGY	Elective	CLS 731	3 (2+1)	Program
	CLS 707	PROJECT PROPOSAL	Required	CLS704 CLS705 CLS706	1 (0+1)	Program
<b>Total</b>					<b>11</b>	
Level 4	CLS 708	THESIS	Required	CLS701 CLS702 CLS703 CLS704 CLS705 CLS706 CLS707	6 (0+6)	Program
	<b>Total</b>					<b>39</b>