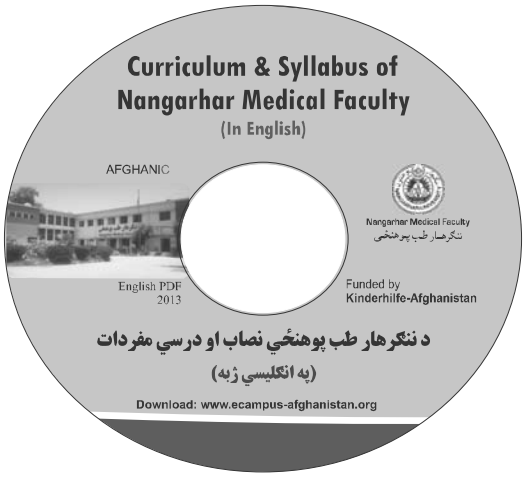
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Nangarhar Medical Faculty
(In English)
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ننگرهار طب پوهنځی

د ننگرهار طب پوهنځي نصاب او درسي مفردات

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Curriculum & Syllabus of Nangarhar Medical Faculty

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(In English)

with CD

2013

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دا کتاب د افغان ماشومانو لپاره د جرمني کمپټی (په جرمني کی د Eroes کورنۍ یوی خیریه ټولنې) لخوا تمویل شوی دی.

اداری او تخنیکی چارې یې د افغانیک موسسی لخوا ترسره شوې دي.

د کتاب د محتوا او لیکنې مسؤلیت د کتاب په لیکوال او اړونده پوهنځي پورې اړه لري. مرسته کـــوونکي او تطبیق کوونکي ټولنې په دې اړه مسولیت نه لري.

د تدریسي کتابونو د چاپولو لپاره له موږ سره اړیکه ونیسی:

ډاکتر یـــحـــیی وردک، د لوړو زدکړو وزارت، کابل

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د لوړو زده کړو وزارت پیغام

د بشر د تاریخ په مختلفو دورو کې کتاب د علم او پوهې په لاسته راوړلو کې ډیر مهم رول لوبولی دی او د درسي نصاب اساسي برخه جوړوي چې د زده کړې د کیفیت په لوړولو کې مهم ارزښت لري. له همدې امله د نړیوالو پیژندل شویو ستندردونو، معیارونو او د ټولنې د اړتیاوو په نظر کې نیولو سره باید نوي درسي مواد او کتابونه د محصلینو لپاره برابر او چاپ شي.

د لوړو زده کړو د مؤسسو د ښاغلو استادانو څخه د زړه له کومې مننه کوم چې ډېر زیار یې ایستلی او د کلونو په اوږدو کې یې په خپلو اړوندو څانګو کې درسی کتابونه تألیف او ژباړلي دي. له نورو ښاغلو استادانو او پوهانو څخه هم په درنښت غوښتنه کوم تر څو په خپلو اړوندو برخو کې نوي درسي کتابونه او نور درسي مواد برابر کړی څو تر چاپ وروسته د ګرانو محصلینو په واک کې ورکړل شي.

د لوړو زده کړو وزارت دا خپله دنده بولي چې د ګرانو محصلینو د علمي سطحې د لوړولو لپاره معیاري او نوي درسی مواد برابر کړي.

په پای کی د افغان ماشومانو لپاره د جرمنی کمیټی او ټولو هغو اړوندو ادارو او کسانو څخه مننه کوم چې د طبي کتابونو د چاپ په برخه کې یې هر اړخیزه همکاري کړې ده.

هیله مند یم چې نوموړې پروسه دوام وکړي او د نورو برخو اړوند کتابونه هم چاپ شي.

په درنښت

پوهاند ډاکتر عبیدالله عبید

د لـــوړو زده کـــړو وزیر

کابل، ۱۳۹۲

د درسي کتابونو د چاپ پروسه

قدرمنو استادانو او ګرانو محصلينو !

د افغانستان په پوهنتونونو کې د درسي کتابونو کموالی او نشتوالی له لويو ستونزو څخه ګڼل کېږي. يو زيات شمير استادان او محصلين نوي معلوماتو ته لاس رسی نه لري ، په زاړه ميتود تدريس کوی او له هغو کتابونو او چپترونو څخه ګټه اخلی چې زاړه دي او په بازار کې په ټيټ کيفيت فوتوکاپي کېږي.

د دې ستونزو د هوارولو لپاره په تېرو دوو کلونو کې مونږ د طب پوهنځيو د درسي کتابونو د چاپ لړۍ پيل او تر اوسه مو ۱۱۲ عنوانه طبي درسي کتابونه چاپ او د افغانستان ټولو طب پوهنځيو ته استولي دي.

دا کړنې په داسی حال کې تر سره کېږي چې د افغانستان د لوړو زده کړو وزارت د (۲۰۱۰-۲۰۱۴) کلونو په ملي ستراتيژيک پلان کې راغلي دي چې:

«د لوړو زده کړو او د ښوونې د ښه کيفيت او زده کوونکو ته د نويو، کره او علمي معلوماتو د برابرولو لپاره اړينه ده چې په دري او پښتو ژبو د درسي کتابونو د ليکلو فرصت برابر شي د تعليمی نصاب د ريفورم لپاره له انګريزی ژبې څخه دري او پښتو ژبو ته د کتابونو او درسی موادو ژباړل اړين دي، له دې امکاناتو څخه پرته د پوهنتونونو محصلين او استادان نشي کولای عصري، نويو، تازه او کره معلوماتو ته لاس رسی پيدا کړي».

د افغانستان د طب پوهنځيو محصلين او استادان له ډېرو ستونزو سره مخامخ دي. نويو درسي موادو او معلوماتو ته نه لاس رسی، او له هغو کتابونو او چپترونو څخه کار اخيستل چې په بازار کې په ډېر ټيټ کيفيت پيدا کېږي د دې برخې له ځانګړو ستونزو څخه ګڼل کېږي. له همدې کبله هغه کتابونه چې د استادانو له خوا ليکل شوي دی بايد راټول او چاپ کړل شي. د هيواد د اوسنی حالت په نظر کې نيولو سره مونږ لايقو ډاکترانو ته اړتيا لرو ترڅو وکولای شي په هيواد کې د طبي زده کړو په ښه والي او پرمختګ کې فعاله ونډه واخلي. له همدې کبله بايد طب پوهنځيو ته زياته پاملرنه وشي.

تراوسه پوري مونږ د ننګرهار، خوست، کندهار، هرات، بلخ او کاپیسا د طب پوهنځیو او کابل طبی پوهنتون لپاره ۱۱۲عنوانه مختلف طبي تدریسي کتابونه چاپ کړي دي. د ننګرهار طب پوهنځی لپاره د۲۰ نورو طبي کتابونو د چاپ چارې روانې دي. د یادونې وړ ده چې نوموړي چاپ شوي کتابونه د هیواد ټولو طب پوهنځیو ته په وړیا توګه ویشل شوي دي.

ټول چاپ شوی طبی کتابونه کولای شی د www.ecampus-afghanistan.org ویب پاڼی څخه ډاونلوډ کړی.

کوم کتاب چې ستاسی په لاس کې دی زمونږ د فعالیتونو یوه بېلګه ده. مونږ غواړو چې دې پروسې ته دوام ورکړو تر څو وکولای شو د درسي کتابونو په برابرولو سره د هیواد له پوهنتونونو سره مرسته وکړو او د چپټر او لکچر نوټ دوران ته د پای ټکی کېږدو. د دې لپاره دا اړینه ده چې د لوړو زده کړود موسساتو لپاره هر کال څه نا څه ۱۰۰ عنوانه درسی کتابونه چاپ کړل شي.

د لوړو زده کړو د وزارت، پوهنتونونو، استادانو او محصلینو د غوښتنې په اساس په راتلونکی کی غواړو چې دا پروګرام غیر طبي برخوته لکه ساینس، انجنیري، کرهنې، اجتماعی علومو او نورو پوهنځیو ته هم پراخ کړو او د مختلفو پوهنتونو او پوهنځیو د اړتیا وړ کتابونه چاپ کړو.

له ټولو محترمو استادانو څخه هیله کوو، چې په خپلو مسلکي برخو کې نوي کتابونه ولیکي، وژباړي او یا هم خپل پخواني لیکل شوي کتابونه، لکچر نوټونه او چپټرونه ایډېټ او د چاپ لپاره تیار کړي. زمونږ په واک کې یی راکړي، چې په ښه کیفیت چاپ او وروسته یې د اړوندې پوهنځی، استادانو او محصلینو په واک کې ورکړو. همدارنګه د یادو شویو ټکو په اړوند خپل وړاندیزونه او نظریات زمونږ په پته له مونږ سره شریک کړي، تر څو په ګډه پدې برخه کې اغیزمن ګامونه پورته کړو.

له ګرانو محصلینو څخه هم هیله کوو چې په یادو چارو کې له مونږ او شاغلو استادانو سره مرسته وکړي.

د یادونې وړ ده چی د مولفینو او خپروونکو له خوا پوره زیار ایستل شوی دی، تر څو د کتابونو محتویات د نړیوالو علمی معیارونو په اساس برابر شی

خو بیا هم کیدای شی د کتاب په محتوی کی ځینی تیروتنی او ستونزی وجود ولری ، نو له دی امله له درنو لوستونکو څخه هیله مند یو تر څو خپل نظریات او نیوکی د مولف او یا زمونږ په پته په لیکلی بڼه را ولیږی، تر څو په راتلونکی چاپ کی اصلاح شی.

د افغان ماشومانو لپاره د جرمنی کمیټی او دهغی له مشر ډاکتر ایروس څخه ډیره مننه کوو چی د دغه کتاب د چاپ لګښت یی ورکړی دی. دوی په تیرو کلونو کی د ننګرهار طب پوهنځی د ۲۰ عنوانه طبی کتابونو د چاپ لګښت پر غاړه درلود.

په ځانګړي توګه د جی آی زیت (GIZ) له دفتر او CIM (Center for International Migration and Development) یا د نړیوالی پناه غوښتنی او پرمختیا مرکز چې زما لپاره یې په تېرو دریو کلونو کې په افغانستان کې د کار امکانات برابر کړی دي هم مننه کوم.

د لوړو زده کړو له محترم وزیر ښاغلي پوهاند ډاکتر عبیدالله عبید ، علمی معین ښاغلي پوهنوال محمد عثمان بابری، مالي او ادري معین ښاغلی پوهنوال ډاکتر ګل حسن ولیزي، د ننګرهار پوهنتون د رییس ښاغلی ډاکتر محمد صابر، د پوهنتونو او پوهنځیو له ښاغلو رییسانو او استادانو څخه هم مننه کوم چې د کتابونو د چاپ لړی یې هڅولی او مرسته یې ورسره کړی ده.

همدارنګه د دفتر له ښاغلو همکارانو څخه هم مننه کوم چې د کتابونو د چاپ په برخه کې یې نه ستړی کیدونکی هلی ځلی کړی دي.

ډاکتر یحیی وردګ، د لوړو زده کړو وزارت
کابل، مارچ ۲۰۱۳
د دفتر ټیلیفون: ۰۷۵۲۰۱۴۲۴۰
ایمیل: textbooks@afghanic.org
wardak@afghanic.org

د ننګرهار د طب پوهنځی ودانی، ۱۳۹۱

د ننګرهار د طب پوهنځی تدریسی خونی، ۱۳۹۲

د طب پوهنځی تدریسی روغتون، ۱۳۹۲

د ننګرهار طب پوهنځی په تدریسي خونو کې د مولتی میدیا په مرسته تدریس کیږی، ۱۳۹۰

د ننګرهار د طب پوهنځی د محصلینو د فراغت مراسم، ۱۳۹۰

د ننګرهار د طب پوهنځی رئیس داکتر خالد یار سره د ننګرهار د طب پوهنځی د فوتبال تیم،۱۳۹۱

د ننگرهار د طب پوهنځی د پنځم صنف محصلین، ۱۳۹۰

د ښی لاس: دل آقا وقار د ننگرهار پوهنتون علمی معین، اسدالله شینواری د ننگرهار د طب پوهنځی رئیس، حمیدالله امین د کابل پوهنتون رئیس، محمد صابر د ننگرهار پوهنتون رئیس، محمد عثمان بابری د لوړوزده کړو وزارت علمی معین، خالد یار د ننگرهار د طب پوهنځی معاون، ناصر کامه وال د ننگرهار د کدری روغتون سرطبیب، عبدالرحیم حسینیان د لوړو زده کړو وزارت مشاور او د بازسازی معین، ۱۳۹۰

د طبی کتابونو د توضیح کولوغونده

د بنی لاس: عبیدالله عبید د لوړو زده کړو وزیر، عمر زاخیلوال د مالیی وزیر، خالد یار د ننګرهار د طب پوهنځی معاون، اسدالله شینواری د ننګرهار د طب پوهنځی رئیس، فهیم یحیی د ننګرهار د کدری روغتون رئیس، امیرخان یار د ولسی جرګی غړی، یحیی وردک د لوړو زده کړو وزارت مشاور او اداری مختصص. 29-3-2012

د ننګرار پوهنتون د نوی لیلیی د افتحاح مراسم

د بنی لاس : د لوړو زده کړو وزیرعبیدالله عبید، د مالیی وزیر عمر زاخیل وال ، د لوړو زده کړو اداری معین صابر خیشکی ، د ننګرهار د طب پوهنځی رئیس اسدالله شینواری.

29-3-2013

د ښی لاس: خالدیار د ننګرهار د طب پوهنځی رئیس، ګل حسن ولیزی د لوړوزده کړو وزارت مالی او اداری معین، محمد صابر د ننګرهارپوهنتون رئیس، محمد حامد د کنر پوهنتون رییس، سلطان محمد ثبات د پوهنتونونو د ارتباط رئیس او محمد اسحاق رازقی د ننګرهار پوهنتون اداری معاون، ۱۳۹۲

د ننګرهار د طب پوهنځی سره د کتابونو د مرستی محفل

د ښی لاس: محمد عالم په افغانستان کی د افغان ماشومانو لپاره د جرمنی کمیتی مسؤل، خالد یار د ننګرهار د طب پوهنځی رئیس، داکتر ایروس د افغان ماشومانو لپاره د جرمنی کمیتی عمومی رئیس، حنیف ګردیوال د ننګرهار ولایت مرستیال، محمد صابر د ننګرهار پوهنتون رئیس، یحیی وردک د لوړو زده کړو وزارت مشاور او اداری متخصص، همایون چاردیوال د ننګرهار د طب پوهنځی معاون،

January, 2013

Ministry of Higher Education
Nangarhar University
Faculty of medicine

- The duration of education in the faculty of Medicine is 7 years (including one year House jobs)
- The duration of each semester is 16 weeks.
- The duration of each lecture is 50 minutes and each Practical works is 100 minutes.
- One lecture or two Practical works or three house job per week are equal to one credit.
- The total credit during educational periods including of one year job are 260 credits.
- The duration of examinations at the end of each semester is 3

Nangarhar Medical faculty

PCB- First Semester				
No	Subjects	Theory	Practical	Credits
1	Physics	2	2	4
2	Chemistry	2	2	4
3	Biology	2	2	4
4	Foreign languages		4	4
5	Computer		1	1
6	Islamic Studies	1		1
Total		**7**	**11**	**18**

PCB- Second Semester				
No	Subjects	Theory	Practical	Credits
1	Physics	2	2	4
2	Chemistry	2	2	4
3	Biology	2	2	4
4	Islamic Studies	1		1
5	Genetics	1	1	2
6	Foreign languages		2	2
7	Computer		1	1
Total		**8**	**10**	**18**

Nangarhar Medical faculty

1st class: third Semester				
No	Subjects	Theory	Practical	Credits
1	Anatomy	3	2	5
2	Histology	2	2	4
3	Embryology	1	1	2
4	Biophysics	1	1	2
5	Foreign languages		4	4
6	Islamic Studies	1		1
Total		**8**	**10**	**18**

1st class: Fourth Semester				
No	Subjects	Theory	Practical	Credits
1	Anatomy	3	2	5
2	Histology	2	2	4
3	Physiology	2	2	4
4	Medical ethics	1		1
5	Foreign languages		3	3
6	Islamic Studies	1		1
Total		**9**	**9**	**18**

Nangarhar Medical faculty

2nd class: fifth Semester				
No	Subjects	Theory	Practical	Credits
1	Anatomy	3	2	5
2	Physiology	3	1	4
3	Biochemistry	2	2	4
4	Microbiology	2	2	4
5	Islamic Studies	1		1
Total		**11**	**7**	**18**

2nd class: sixth Semester				
No	Subjects	Theory	Practical	Credits
1	Physiology	3	1	4
2	Biochemistry	2	2	4
3	Microbiology	2	2	4
4	Pathology	3	2	5
5	Islamic Studies	1		1
Total		**11**	**7**	**18**

Nangarhar Medical faculty

3rd class: seventh Semester				
No	Subjects	Theory	Practical	Credits
1	Pathology	2	1	3
2	Pharmacology	2	1	3
3	Parasitology & immunology	1	1	2
4	Medicine	2	2	4
5	Surgery	2	2	4
6	Public health (P.H.C-H.E-EN.H)	1	1	2
7	Islamic Studies	1		1
Total		**11**	**8**	**19**

3rd class: Eighth Semester				
No	Subjects	Theory	Practical	Credits
1	Pathology	2	2	4
2	Pharmacology	2	2	4
3	Medicine	2	2	4
4	Surgery	2	2	4
5	Public health (Nutrition)	1	1	2
6	Islamic Studies	1		1
Total		**11**	**7**	**19**

Nangarhar Medical faculty

4th class: ninth Semester				
No	Subjects	Theory	Practical	Credits
1	Infectious disease and TB	2	2	4
2	Pharmacology	1	1	2
3	Medicine	2	2	4
4	Surgery	2	2	4
5	Radiology and imaging	1	1	2
6	Obstetrics	1	1	2
7	Public health(Epid-CDC-Non CDC)	1	1	2
Total		**10**	**8**	**20**

4th class: tenth Semester				
No	Subjects	Theory	Practical	Credits
1	Anesthesia	1	1	2
2	Urology	1	1	2
3	Medicine	2	2	4
4	Surgery	2	2	4
5	Radiology and imaging	1	1	2
6	Obstetrics	1	1	2
7	Dermatology	2	1	3
8	Public health (Epi-Biostatistics)	1	1	2
Total		**11**	**10**	**21**

Nangarhar Medical faculty

5th class: Eleventh Semester				
No	Subjects	Theory	Practical	Credits
1	Medicine	1	1	2
2	Surgery	2	2	4
3	Pediatrics	1	1	2
4	Gynecology	1	1	2
5	Traumatology	1	1	2
6	ENT	2	1	3
7	Neurology	1	1	2
8	Neurosurgery	1	1	2
9	Public health (IMCI-Immunity-Occup Health)	1	1	2
Total		**11**	**10**	**21**

No	Subjects	Theory	Practical	Credits
1	Medicine	1	1	2
2	Pediatric Surgery	1	1	2
3	Pediatrics	2	2	4
4	Gynecology	1	1	2
5	Orthopedics	1	1	2
6	Ophthalmology	2	1	3
7	Psychiatry	1	1	2
8	Forensic medicine	1	1	2
9	Behavioral science	1		1
10	Public health (H management- H policy-SMI)	1	1	2
Total		**12**	**10**	**22**

Nangarhar Medical faculty

House Job			
No	**Disciplines**	**Theory**	**Practical**
1	Medicine		10 weeks
2	Surgery		8 weeks
3	Pediatrics		6 Weeks
4	Obs/Gynecology		5 Weeks
5	Dermatology		2 weeks
6	Ophthalmology		2 weeks
7	ENT		2 weeks
8	Infectious disease		2 weeks
9	Tuberculosis		2 weeks
10	Forensic medicine		2 weeks
11	Physiotherapy		2 weeks
12	Public health		2 weeks
13	Psychiatry/ Neurology		2 weeks
14	Principles or rational prescribing		1 weeks
Total duration			**48 weeks**
Total credits			**36**

Nangarhar medical Faculty

Nangarhar University
Nangarhar medical faculty

No	Subject	Credits	Kind of subject	Code number
1	Biology 1 , 2	8	Basic	Me 1 01
				Me 1 01
2	Chemistry 1 , 2	8	Basic	Me 1 02
				Me 1 02
3	Computer	2	Optional	Me 1 03
				Me 1 03
4	Genetic	2	Basic	Me 1 04
5	Islamic study 1 , 2, 3 , 4 , 5 , 6 , 7 , 8	8	Included in all universities	Me 1 05
				Me 2 05
				Me 3 05
				Me 4 05
6	Foreign languages 1 , 2 , 3 , 4	13	Included in all universities	Me 1 06
				Me 1 06
				Me 2 06
				Me 2 06
7	Physics 1 , 2	8	Basic	Me 1 07
				Me 1 07
8	Anatomy 1 , 2 , 3	15	Basic	Me 2 09
				Me 2 09
				Me 3 09
9	Histology 1 , 2	8	Basic	Me 2 10
				Me 2 10
10	Embryology	2	Basic	Me 2 11
11	Physiology 1 , 2 , 3	12	Basic	Me 2 12
				Me 3 12
				Me 3 12
12	Biophysics	2	Basic	Me 2 13
13	Medical ethics	1	Basic	Me 2 14
14	Biochemistry	8	Basic	Me 3 15
				Me 3 15
15	Microbiology	8	Basic	Me 3 16
				Me 3 16
16	Parasitology	2	Basic	Me 4 17

Nangarhar medical Faculty

17	Pathology 1 , 2 , 3	12	Basic	Me 3 18
				Me 4 18
				Me 4 18
18	Pharmacology 1 , 2 , 3	9	Basic	Me 4 19
				Me 4 19
				Me 5 19
19	Public Health 1 , 2 , 3 , 4 , 5 , 6	12	Professional	Me 4 20
				Me 4 20
				Me 5 20
				Me 5 20
				Me 6 20
				Me 6 20
20	Behavioral Science	1	Basic	Me 6 21
21	Forensic medicine	2	Professional	Me 6 22
22	Medicine 1 , 2 , 3 , 4 , 5 , 6	20	Professional	Me 4 23
				Me 4 23
				Me 5 23
				Me 5 23
				Me 6 23
				Me 6 23
23	Surgery 1 , 2 , 3 , 4 , 5 , 6	20	Professional	Me 4 24
				Me 4 24
				Me 5 24
				Me 5 24
				Me 6 24
				Me 6 24
24	Infectious disease and TB	4	Professional	Me 5 25
25	Radiology & imaging 1 , 2	4	Basic	Me 5 26
				Me 5 26
26	Obstetrics 1 , 2	4	Professional	Me 5 27
				Me 5 27
27	Gynecology	4	Professional	Me 6 28
				Me 6 28

28	Anesthesia	2	Professional	Me 5 29
29	Urology	2	Professional	Me 5 30
30	Dermatology	3	Professional	Me 5 31
31	Pediatric 1 , 2	6	Professional	Me 6 32

				Me 6 32
32	Pediatric surgery	2	Professional	Me 6 33
33	Orthopedics 1 , 2	4	Professional	Me 6 34
				Me 6 34
34	ENT	3	Professional	Me 6 35
35	Neurology	2	Professional	Me 6 36
36	Neurosurgery	2	Professional	Me 6 37
37	Ophthalmology	3	Professional	Me 6 39
38	Psychiatry	2	Professional	Me 6 40

Note:

The first two letters are the first two letter of Faculty, the first number is the educational year, and the last two numbers are the code of subject.

The score of passing is 55 and the average is 60 in credit system.

Nangarhar medical faculty

Syllabus

Nangarhar medical faculty

PCB

Nangarhar medical faculty

Physic Department Curriculum for Medical faculty
Subject: physics (Mechanics & Sound

Grade : PCB			First semester	
week	Hour		Topics	Note
	Theory	Practical		
1	1	1	**System of units and measurement in inches** Physical Quantities, Fundamental Quantities Basic Quantities of length and it's unit, parsec, light year	
2	1	1	**Basic Quantity of time and it's units** Basic quantity of time and it's unit , medical use of unit, Dimension	
3	1	1	**Motion** Motion in one diminution Displacement	
4	1	1	**Average velocity ,constant speed** Instantaneous velocity, Acceleration	
5	1	1	**Free falling objects,** Mass and Weight, Vectors, Vector & scalars Two-Dimensional motion, Projectile motion	
6	1	1	**The laws of motion, Newton's first law Mass and intertia, Newton's second law**	
7	1	1	**Newton's third law** Circular motion, centripetal force, centrifugal force	
8	1	1	**Gravity and mass,** Body weight, force and weight units, Friction, Work, Energy law, conservation energy, Impulse, momentum, Elastic and non elastic accident	
9	1	1	**Liquid and Gas static,** Properties of liquids and gases, Expansion of pressure and liquid in gas without its weight ,Pressure in liquids and gases under the effect of gravity, Measuring Instruments for the pressure of liquids and gases, Pressure on digestive system, pressure on Skeleton, Blood pressure chart in variety parts of human body	
10	1	1	**Specific Gravity:** density of solids , liquid and gases, Surface tension, medical use of surface tension, Brownian motion of molecules diffusion, osmosis	
11	1	1	**Rules of osmosis in medicine ,** formation of tissue liquid and edema, unredeemed, Water attraction by kidney tubules.	
12	1	1	Transport of water between indside and out side of the cell liquid and Gases Dynamic Viscosity.	

13	**1**	**1**	**Stock's law** Viscosity observation in medicine Bernoulli's law and use of Bernoulli's law	
14	**1**	**1**	**Torricelli's Law** Hagen and Piously law Vibration	
15	**1**	**1**	**Spring dancer and Elasticity** Simple Pendulum Sound and it's meaning	
16	**1**	**1**	**Producing of sound and sound waves** Ultrasound, nature of ultrasound and it's meaning Medical use of ultrasound, measurement by ultrasound.	

One theoretical class has 50 minutes
One practical class has 100 minutes

Nangarhar medical faculty

Physic Department Curriculum for medical Faculty

Subject : Physics (Heat & Thermodynamics)				
Grade : PCB			**First semester**	
week	**Hour**		**Topics**	**Note**
	Theory	**Practical**		
1	**1**	**1**	**The nature of Heat** Definition of Heat Sources of Heat	
2	**1**	**1**	**Temperature & Measurement of Temperature** Thermometer, Centigrade Thermometer Fahrenheit Thermometer	
3	**1**	**1**	**Medical Thermometer** Alcohol Thermometer Thermocouple & Thermopile	
4	**1**	**1**	**Kelvin Thermometer** Bimetal Relation between Thermometer	
5	**1**	**1**	**Quantity of Heat** Specific Heat, Units of Heat	
6	**1**	**1**	**Thermal Equilibrium,** Human body thermal Equilibrium, Calorimeter, Specific Heat of Solids and Specific Heat of liquids	

7	**1**	**1**	**Heat Transfer,** Heat Transfer by Conduction, Heat Transfer by Convection, Heat Transfer by radiation, Block Body and radiation.	
8	**1**	**1**	Bolts man and Stefan's Law, Newton's Law Cooling Cooling of the human body, Cold therapy	
9	**1**	**1**	**Thermal Expansion :** Expansion of Solids Expansion of Liquids, Expansion Gases, Effect of Heat on density, Unusual Expansion of Water.	
10	**1**	**1**	**Human Body Thermal Expansion,** metabolism and Rise of Temperature Superficial and deep Heat, Physiological effects of Heat, Heat Therapy	
11	**1**	**1**	**Gases,** Marriott and Boyles Law , Daltons Law, Charles Law, Graham Law	
12	**1**	**1**	**Expansion of Gases** Real Gases, Ideal Gases	
13	**1**	**1**	**Matter, Matter Status** Chang of status Malting , Melting Law	
14	**1**	**1**	**Effect of Pressure of Melting Point** Freezing, Freezing Law Melting Point, Vaporization, Boiling, Condensation	
15	**1**	**1**	**Thermodynamics,** Definition of Thermodynamic, Process of Thermodynamic	
16	**1**	**1**	**Thermodynamics Laws** **Thermodynamic of the Human body**	

One theoretical class has 50 minutes
One practical class has 100 minutes

Nangarhar medical faculty

Subject : Magnetism and Electricity Physics				
Grade : PCB			Second semester	
week	Hour		Topics	Note
	Theory	Practical		
1	1	1	**Electric Charges,** Structure of Atom.	
2	1	1	**Electroscope,** Conductors and insulators	
3	1	1	**Coulomb's Law**	
4	1	1	**Electric Field,** Electric Field intensity.	
5	1	1	**Electric lines of Forces,** Gausses Law.	
6	1	1	**Linear Integral Electric Field intensity,** Potential differences.	
7	1	1		
8	1	1	Bolts man and Stefan's Law, Newton's Law Cooling Cooling of the human body, Cold therapy	
9	1	1	**Thermal Expansion :** Expansion of Solids Expansion of Liquids, Expansion Gases, Effect of Heat on density, Unusual Expansion of Water.	
10	1	1	**Human Body Thermal Expansion,** metabolism and Rise of Temperature Superficial and deep Heat, Physiological effects of Heat, Heat Therapy	
11	1	1	**Gases,** Marriott and Boyles Law , Daltons Law, Charles Law, Graham Law	
12	1	1	**Expansion of Gases** Real Gases, Ideal Gases	
13	1	1	**Matter, Matter Status** Chang of status Malting , Melting Law	
14	1	1	**Effect of Pressure of Melting Point** Freezing, Freezing Law Melting Point, Vaporization, Boiling, Condensation	
15	1	1	**Thermodynamics,** Definition of Thermodynamic, Process of Thermodynamic	
16	1	1	**Thermodynamics Laws** **Thermodynamic of the Human body**	

Physic Department Curriculum for medical Faculty

One theoretical class has 50 minutes
One practical class has 100 minutes

Nangarhar Medical Faculty

Physic Department Curriculum for medical Faculty

Subject : Magnetism and Electricity Physics				
Grade : PCB			**Second Semester**	**Note**
Week	**Hour**		**Topics**	
	Theory	Practical		
1	1	1	**Electric Charges**, Structure of Atom	
2	1	1	**Electroscope,** Conductors and insulators	
3	1	1	**Coulombs Law**	
4	1	1	**Electric Field** , Electric Field intensity	
5	1	1	**Electric lines of Force,** Gauss's Law	
6	1	1	**Linear integral Electric field intensity,** Potential difference	
7	1	1	**The Van De Graff Generator**	
8	1	1	**Capacitors**, Plane Capacitors	
9	1	1	**Series and parallel Combination Capacitors,** Capacitors Energy	
10	1	1	**Electric resistance,** Electromotive Force Resistance	
11	1	1	**Series Combination of Resistance,** Parallel Combination of resistance	
12	1	1	**Kerchief's Rule,** Charles Wheatstone Bridge	
13	1	1	**Electroencephalography**	
14	1	1	**Electrocardiography**	
15	1	1	**Phonocardiography**	
16	1	1	**Electroritnography,** Instruments related to the Hospital studies	

Nangarhar Medical Faculty

Physic Department Curriculum for medical Faculty

Subject : Optics				
Grade : PCB			**Second Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	1	1	**The Nature of Light,** Sources of Light, The Electromagnetic Spectrum, Visible Light, Invisible light.	
2	1	1	**Propagation of Light,** Reflection of light, plane mirror , Light Therapy.	
3	1	1	**Spherical mirrors,** Convex mirrors, concave mirrors, images in Spherical mirrors.	
4	1	1	**Formula of Spherical mirrors,** Use of Spherical mirrors, use of Spherical mirrors in medicine.	
5	1	1	**Refraction of light**, Index of refraction, Critical Angle.	
6	1	1	**Refraction of light by a prism,** Dispersion of light.	
7	1	1	**Laser,** Medical use of laser	
8	1	1	**Laser Therapy,** Diopter, Plane Diopter, Spherical Diopther	
9	1	1	**Lens,** Spherical Lens, Convex Lens, Concave Lens.	
10	1	1	**Combination of Thin Lens,** Power Lens	
11	1	1	**Lens Makers Formula,** images in lenses	
12	1	1	**Cylindrical Lens,** Medical use of lens, Optical instruments.	
13	1	1	**Magnifying glass,** microscope and use of microscope in medicine.	
14	1	1	**Photometry,** luminous intensity, light flux, inverse square law	
15	1	1	**Eye,** construction of the eye, eye defects farsighted eye.	
16	1	1	**Accommodation of the eye,** eye defects, Farsighted eye.	

Nangarhar medical Faculty

Chemistry Department Curriculum for Medical Faculty

Subject : Non-Organic Chemistry				
Grade : PCB			**First Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	2	2	**Introduction :-** The Chemistry role in medical, agriculture and industries. **Chemistry Laws** (mass conservation , definite Proportion, multiple proportions)	
2	2	2	**Oxidation numbers and rules in the inorganic compounds.** **Classification of inorganic compounds** (oxides, Hydroxides and salts)	
3	2	2	**Solutions :- Types of Solutions, Concentration unit** **The effect of pressure of Solubility (Henry law) Medical importance and solubility of liquids in liquids.**	
4	2	2	**Colligative properties of Solution** (Division Osmosis and Osmotic Pressure) Isotonic, hypertonic and hypotonic solution and their importance in medical. **Rout's law (Viper pressure of solutions) medical uses.**	
5	2	2	**Strong and Weak electrolytes solution and Oswald law:** their importance in medical. Acid base and Ampholids. **Ionization of Water PH,** PH (the hydrogen ion concentration) Such as active acid and criteria and medical importance.	
6	2	2	**Hydrolysis** and Hydrolysis constant, medical importance. **The (H+ and OH-) ions physiological effects in the organism**	
7	2	2	**Mechanism of formation bonding,** types of bond	

			Mechanism of formation bonding, types of bond	
8	2	2	**The first law of Thermodynamic** (processes isochoric, isobaric and isothermic) Thermo chemical. **Comparisons of standard enthalpy**, heat of neutralization, heat of solubility, result Hess' law and uses of the thermodynamic in biological system**.**	
9	2	2	**The Second law of Thermodynamic** **The third law of Thermodynamic** (potential thermodynamic, biological system and G thermodynamic and chemical Equilibrium.	
10	2	2	**Atom Structure:-** ideas about structure of atom (electron and proton) **Radio activity** (Alpha, Beta and Gamma Rays) nuclear reaction, quantum number, spins quantum number.	
11	2	2	**Kalchcosfski law** **The electron configuration of periodic elements**	
12	2	2	Chemical bonding (Valance, bonding energy, Configuration electron of atom and molecular structure. Mechanism of formation bonding, Types of bond	
13	2	2	**Hybridization** **Hybridization**	
14	2	2	**Biogenic elements (macro and micro elements)** **Biogenic elements (macro and micro elements)**	
15	2	2	**Complex Compounds** **Complex Compounds**	
16	2	2	**Ideas about legends compounds,** isomers and nomenclature. **Ideas about legends compounds,** isomers and nomenclature.	

One theoretical class has 50 minutes.
One practical class has 100 minutes.

Nangarhar medical Faculty

Chemistry Department Curriculum for medical Faculty

Subject : Organic Chemistry				
Grade : PCB			**Second Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	2	2	**Introduction, Hydrocarbon:** - The alkynes (Homologous Series, Structure, Isomerism and nomenclature. **Introduction, Hydrocarbon: -** Confirmation of Aliphatic Compounds, Preparation of alkynes, physic- chemical properties of alkynes.	
2	2	2	**Introduction, Hydrocarbon: -** The Alkynes (Homologous Series, Structure isomerism and Nomenclature, Cist- trans isomerism. **Introduction, Hydrocarbon: -** Preparation of alkynes, physical properties, chemical properties of alkynes, additional reaction, Dimerization, Substitution reaction of alkynes	
3	2	2	**Hydrocarbons: -** Cycloalynes (nomenclature, isomerism of Cist-trans, conformation Analysis, movement of rings, physic-chemical properties. **Hydrocarbons: -** Cycloalynes (nomenclature, isomerism of Cist-trans, conformation Analysis, movement of rings, physic-chemical properties.	
4	2	2	**Introductions Hydrocarbons :-** The Alkynes (Homologous Series, Structure, isomerism and Nomenclature) **Introductions Hydrocarbons:** - Preparation of alkynes, physical properties, chemical properties, chemical properties of alkynes, Additional reaction.	
5	2	2	**Hydrocarbon:-** The Aromatic Hydrocarbons introduction (Homology and Nomenclature, physical and chemical properties) (electrophli and nucleophle reactions and Substitution reactions) **Hydrocarbon:-** Preparation of aromatics compounds, importance of medical and Uses.	
6	2	2	**Condensed-ring compounds of Aromatic (naphthalene, anathracene phenathrene),** Homologous Series addition and substitution reacting medical importance and uses. and	

			Hydrolysis constant, medical importance.	
7	2	2	**Nonbenzenoid (Aromatic) Structure, Medical importance and uses.**	
			Nonbenzenoid (Aromatic) Structure, Medical importance and uses.	
8	2	2	**Halogen compounds (Aromatic and Aliphatic):-** Nomenclature, classification, preparation.	
			Halogen compounds (Aromatic and Aliphatic):- displacement and elimination, reaction, medical uses and importance	
9	2	2	**Alcohol and Phenol: -** Classification of hydroxyl compounds, Nomenclature, preparation, side reactions.	
			Alcohol and Phenol: - physical and chemical properties of alcohol, medical uses and importance.	
10	2	2	**Ethers and Esters: -** Definition, Nomenclature, Physical-chemical properties.	
			Ethers and Esters: Definition, Nomenclature, physical-chemical properties	
11	2	2	**Carbonyl compounds: -** Aldehydes and Ketones (Definition, Nomenclature), Properties (additional substitional reaction), preparation, medical importance and uses.	
			Carbonyl compounds: - Aldehydes and Ketones (Definition, Nomenclature), Properties (additional substitional reaction), preparation, medical importance and uses.	
12	2	2	**Carboxylic acids: -** definition, preparation, properties and medical importance uses.	
			Carboxylic acids: - definition, preparation, properties and medical importance uses.	
13	2	2	**Carbohydrate: -** Definition and Nomenclature, classification of carbohydrates.	
			Carbohydrate: - Definition and Nomenclature, classification of carbohydrates.	
14	2	2	**Monosaccharides, disaccharides, polysaccharides proof of configuration of carbohydrates.**	
			Monosaccharides, disaccharides, polysaccharides proof of configuration of carbohydrates.	
15	2	2	**Amino acids, amino phenols and others compound.**	
			Amino acids, amino phenols and others compound.	
16	2	2	**Chemistry of Heterocyclic,** Nomenclature, biological activity heterocyclic compounds, classification and their properties.	

			Chemistry of Heterocyclic, Nomenclature, biological activity heterocyclic compounds, classification and their properties.	

One theoretical class has 50 minutes.
One practical class has 100 minutes.

Nangarhar medical Faculty

Biology Department Curriculum for Medical Faculty

Subject : Cell Biology				
Grade : PCB			**First Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	2	2	**Introduction: -** History and Background **Discovery of Cell:-** Cell Theory	
2	2	2	**Evolutionary Classification of the cell: -** Prokaryotes Eukaryotes. **Virus: -** Definition and Structure.	
3	2	2	**Morphological Organization of the cell Plasma Membrane: -** Structure of the plasma- membrane, Differentiation of the cell surface. **Chemical composition of the plasma- membrane: -** Transport Mechanisms.	
4	2	2	**Free Diffusion: -** Active Transport. **Endocytosis: -** Phagocytes and Pinocytosis.	
5	2	2	**Cell Junctions: -** Gap junction, Tight Junction, Septal junction. **General Organization of the ground cytoplasm of the cell: -** Endoplasmic Reticulum configuration, Type of Endoplasmic Reticulum.	
6	2	2	**Golgi Complex: -** Morphology. **Function of the Golgi Complex:-** Morphology and function of the mitochondria	
7	2	2	**Ribosome:-** Physical Characteristics, Chemical Composition, Function.	

			Lysosome: - Morphology, Functions, Per-oxisomes.	
8	2	2	**Cilia and Flagella: -** Structure, Chemical Composition, Microtubules, Vacuoles. **Microtubules:-** Vacuoles, Contractive Vacuoles, Food Vacuoles.	
9	2	2	**Morphologic organization of Nucleus and Chromosome: -** Morphology of nucleus, Nuclear membrane or Envelope. **Structure of nucleolus: -** Chromosome.	
10	2	2	**Morphology of Chromosome** **Morphology of Chromosome**	
11	2	2	**Chromosome Structure** **Chromosome Structure**	
12	2	2	**Chemical Organization of the cell** **Protein, carbohydrate, Lipids, Nucleic acid, Water**	
13	2	2	**Chemical Organization of the cell** **Protein, carbohydrate, Lipids, Nucleic acid, Water**	
14	2	2	**Chemical Organization of the cell** **Protein, carbohydrate, Lipids, Nucleic acid, Water**	
15	2	2	**Chemical Organization of the cell** **Protein, carbohydrate, Lipids, Nucleic acid, Water**	
16	2	2	**Chemical Organization of the cell** **Protein, carbohydrate, Lipids, Nucleic acid, Water**	

One theoretical class has 50 minutes.
One practical class has 100 minutes.

Nangarhar medical Faculty

Biology Department Curriculum for Medical Faculty

Subject : Molecular Biology				
Grade : PCB			Second Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	2	2	**Bioenergetics,** Free energy **Open System & Steady State,** Enzyme, function of Enzyme, Inhibition of Enzyme activity.	
2	2	2	**Bioenergetics, Free energy** **Open System & Steady State,** Enzyme, function of Enzyme, Inhibition of Enzyme activity.	
3	2	2	**Bioenergetics, Free energy** **Open System & Steady State,** Enzyme, function of Enzyme, Inhibition of Enzyme activity.	
4	2	2	**Cell division** **Cell division**	
5	2	2	**Mitosis,** Morphology of mitosis. **Duration of mitotic cycle**	
6	2	2	**Molecular and Cyto-genetics,** The Genetic materials. **The structure of DNA,** Replication of DNA	
7	2	2	**Molecular and Cyto-genetics,** The Genetic materials. **The structure of DNA,** Replication of DNA	
8	2	2	**Molecular and Cyto-genetics,** The Genetic materials. **The structure of DNA,** Replication of DNA	
9	2	2	**The Function of Genes,** The genetic code **Transcription,** Translation.	
10	2	2	**The Function of Genes,** The genetic code **Transcription,** Translation.	

11	2	2	**The Function of Genes,** The genetic code **Transcription,** Translation.	
12	2	2	**Prokaryotic Regulation,** Regulator genes control the expression of gene that code for a protein product. **Eukaryotic Regulation,** The control of gene expression occurs at all levels from transcription to the activity of proteins in the cytoplasm, The Structural organization of chromatin & various mechanism help gene expression in Eukaryotes.	
13	2	2	**Prokaryotic Regulation,** Regulator genes control the expression of gene that code for a protein product. **Eukaryotic Regulation,** The control of gene expression occurs at all levels from transcription to the activity of proteins in the cytoplasm, The Structural organization of chromatin & various mechanism help gene expression in Eukaryotes.	
14	2	2	**Prokaryotic Regulation,** Regulator genes control the expression of gene that code for a protein product. **Eukaryotic Regulation,** The control of gene expression occurs at all levels from transcription to the activity of proteins in the cytoplasm, The Structural organization of chromatin & various mechanism help gene expression in Eukaryotes.	
15	2	2	**The Genetic mutation** **The Genetic mutation**	
16	2	2	**The Genetic mutation** **The Genetic mutation**	

One theoretical class has 50 minutes.
One practical class has 100 minutes.

Nangarhar medical Faculty

Foreign Language Department Curriculum for Medical Faculty

Subject : English				
Grade : PCB			**First Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	0	4	**CLASSROOMS,** exchange personal information similarities. **Grammar,** possessive Ad, short answers, days of week.	
2	0	4	**CLASSROOMS,** exchange personal information similarities. **Grammar,** possessive Ad, short answers, days of week.	
3	0	4	**People:** Talking about family relatives. **Grammar:** Simple Present, auxi verbs and listening.	
4	0	4	**People:** Talking about family relatives. **Grammar:** Simple Present, auxi verbs and listening.	
5	0	4	**Living:** talking about houses. **Grammar:** there / there are.	
6	0	4	**Living:** talking about houses. **Grammar:** there / there are.	
7	0	4	**Food:** talking about food. **Grammar:** countable and uncountable noun, reading passage.	
8	0	4	**Food:** talking about food. **Grammar:** countable and uncountable noun, reading passage.	
9	0	4	**Work:** talking about different jobs. **Grammar:** Modal auxi, Listening.	
10	0	4	**Work:** talking about different jobs. **Grammar:** Modal auxi, Listening.	

11	0	4	**Sea:** talking about water sports. **Grammar:** Simple past, Listening.	
12	0	4	**Sea:** talking about water sports. **Grammar:** Simple past, Listening.	
13	0	4	**Solo:** talking about feeling. **Grammar:** Simple past, Listening.	
14	0	4	**Solo:** talking about feeling. **Grammar:** Simple past, Listening.	
15	0	4	**Review**	
16	0	4	**Review**	

One theoretical class has 50 minutes.
One practical class has 100 minutes.

Nangarhar medical Faculty

Foreign Language Department Curriculum for Medical Faculty

Subject : English				
Grade : PCB			**Second Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	0	2	**Looks:** talking about similarities between family members. **Grammar:** Present continues Listening and Reading passage Verbs.	
2	0	2	**Looks:** talking about similarities between family members. **Grammar:** Present continues Listening and Reading passage Verbs.	
3	0	2	**Reality:** Talking about dreams and Reality. **Grammar:** future form, would like, reading, Listening.	
4	0	2	**Reality:** Talking about dreams and Reality. **Grammar:** future form, would like, reading, Listening.	
5	0	2	**Things**: talking about lost property. **Grammar:** comparative and superlative ad, reading and listening.	

6	0	2	**Things:** talking about lost property. **Grammar:** comparative and superlative ad, reading and listening.	
7	0	2	**Energy:** talking about daily activities, reading and listening. **Grammar:** Frequency expression, How often.	
8	0	2	**Energy:** talking about daily activities, reading and listening. **Grammar:** Frequency expression, How often.	
9	0	2	**Dotcom:** talking about websites. **Grammar:** Present perfect, listening and reading.	
10	0	2	**Dotcom:** talking about websites. **Grammar:** Present perfect, listening and reading.	
11	0	2	**Drive:** talking about drives to work. **Grammar:** Question form, WHAT+NOUN, listening.	
12	0	2	**Drive:** talking about drives to work. **Grammar:** Question form, WHAT+NOUN, listening.	
13	0	2	**Justice:** talking about revenge, writing a story. **Grammar:** Punctuation, past con, listening & reading.	
14	0	2	**Justice:** talking about revenge, writing a story. **Grammar:** Punctuation, past con, listening & reading.	
15	0	2	**Review.**	
16	0	2	**Review.**	

One theoretical class has 50 minutes.
One practical class has 100 minutes.

Nangarhar medical Faculty

Physic Department Curriculum of Computer for Medical Faculty

Subject : Computer				
Grade : PCB			**First Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	0	1	**Introduction to Computer**	
2	0	1	**Input & Output Hardware windows xp 2006**	
3	0	1	**Memory & Processing Unit Windows XP**	
4	0	1	**Secondary Storage Windows XP**	
5	0	1	**Secondary Storage**	
6	0	1	**Communication devices Windows XP**	
7	0	1	**Installing Windows XP**	
8	0	1	**Installing Windows XP Application and Drivers**	
9	0	1	**Assembling & Dissembling Windows XP**	
10	0	1	**BIOS**	
11	0	1	**Trouble shooting**	
12	0	1	**Windows XP.**	
13	0	1	**. Windows XP.**	
14	0	1	**Windows XP Internet**	
15	0	1	**Windows XP** Electronic mail	
16	0	1	**Windows**	

One theoretical class has 50 minutes.
One practical class has 100 minutes.

Nangarhar medical Faculty

Physic Department Curriculum of Computer for Medical Faculty

Subject : Computer				
Grade : PCB			Second Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	0	1	**Introduction of office Program**	
2	0	1	**MS Word menu** New, open, close, save, save as, save as web page, page set up, print preview, print , send to, Exit.	
3	0	1	**MS Word menu** Edit, undo, redo, copy, cut, paste, office clipboard, past special, past as hyperlink, clear, select all, find, replace, go to, links.	
4	0	1	**MS Word menu** View, normal, web layout, print layout, out line, task pane, toll bars.	
5	0	1	**MS Word menu** Document map, Header and footer, mark up, full screen, zoom	
6	0	1	**MS Word menu** Insert, break, page no, date and time, rate text, field symbol, comment.	
7	0	1	**Reference,** Picture, diagram, text box, file, object, bookmark, hyperlink.	
8	0	1	**MS Word menu** Font, paragraph, bullets & no, border, columns, prop cap text direction.	
9	0	1	**MS Word menu** Change case, back ground, them, freaks, futon, format, format styles, Reveal.	
10	0	1	**MS Word menu** Tools, spelling, language, fix broken text, word count, Auto summarize, speech, track changes, Compare, protected, online, letters, tools, macro, template, Auto connect, customize.	
11	0	1	**MS Word menu** Table, Draw, insert, delete, select, merge cells, split. cells, split table.	

12	0	1	**Auto fit,** Heading, connect, sort, formula, Hide, table.	
13	0	1	. **MS Word menu** Windows, new windows, Arrange all, split.	
14	0	1	**MS Word menu** Help, about Ms word.	
15	0	1	**Over view power point**	
16	0	1	**Over view power point**	

Nangarhar medical Faculty

Islamic Study Department Curriculum for Medical Faculty

Subject : Islamic study				
Grade : PCB			**First Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	1	0	**Definition & means of Islamic culture** **General & Special means**	
2	1	0	**Yah and Hades about of Knowledge & its superioty in Islam Religion.**	
3	1	0	**Pointing With Ayah & Hades about the world Headway science, Technology, communication & transportations.**	
4	1	0	**Basic of Islamic culture (Islam Religion)**	
5	1	0	**Specials of Islamic Law (generality, inclusion, divine. eternal……etc)**	
6	1	0	**Target of Islamic Law (generation protection, wisdom protection, Religion protection, property protection…)**	
7	1	0	**Spiritual & corporal disease**	
8	1	0	**Sexual Deviations**	
9	1	0	**Discord & its kind**	
10	1	0	**Blasphemy & its kinds like Materialism**	
11	1	0	**polytheism**	
12	1	0	**polytheism**	
13	1	0	**Bed at (بدعت)**	
14	1	0	**Fanaticism**	
15	1	0	**Fanaticism**	
16	1	0	**Fanaticism**	

Nangarhar medical Faculty

Islamic Study Department Curriculum for Medical Faculty

Subject : Islamic study				
Grade : PCB			Second Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	0	Medical Confirmation in Islam religion (Hades & Feqhi formula)	
2	1	0	Importance of medical in Islam Religion (Ayah & Hades)	
3	1	0	Medicine in last Religion (History)	
4	1	0	Treatment in Islam Religion	
5	1	0	Wisdom Protection from narcotics, tobacco, Opium & alcohol.	
6	1	0	Health protection in Islam Religion.	
7	1	0	Health protection in Islam Religion.	
8	1	0	Environment protection in Islamic Religion	
9	1	0	Environment protection in Islam Religion	
10	1	0	Water Sources protection in Islamic Educations	
11	1	0	Water Sources protection in Islamic Educations	
12	1	0	Family planning in Islamic Educations	
13	1	0	Abortion in Islam religion unlawful	
14	1	0	Protection from unlawful sexual in Islam	
15	1	0	Protection from unlawful sexual in Islam	
16	1	0	Individual Cleanliness in Islam	

Nangarhar medical Faculty

Biology Department Curriculum for Medical Faculty

Subject : Genetics				
Grade : PCB			**Second Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	1	0	**Historical Background** Variation & Mutation Importance of Genetics in Agriculture Sector.	
2	1	0	**Importance of Genetics with Animals** Importance of Genetics in Medicine Genetic Counseling Phenotype & Genotype.	
3	1	0	**Allel & Mandel Laws** Monohybrid, Dihybrid and polyhybrid Cross Exercise.	
4	1	0	**Genes Reaction**	
5	1	0	**Complementary Genes**	
6	1	0	**Epistemic Genes** Kind of allel Genes Reaction	
7	1	0	**Polymeric Genes** Back Cross or Test Cross Poly allel Inheritance.	
8	1	0	**Rh Factor**	
9	1	0	**Incomplete Dominance** Sickle Cell anemia.	
10	1	0	**Lethal Gene** Modifier Gene	
11	1	0	**Mutation & Recombination** Kind of mutation Trisomy and Monosomy.	
12	1	0	**Human Genetics** Genetic disease (Mongolism, Klinefielter syndrome, Turner syndrome) Down syndrome, Dotanism, Hemophilia, Albinism, etc	
13	1	0	**Twins** (Type of Twins, Identical, Fraternal Twins)	
14	1	0	**Twins** & Environmental Factors, on the matter of Multiples	

			Multifactor and Behavioral Traits with Twins.	
15	1	0	**Biochemistry of Human Genetics** Cytological Methods Molecular Genetic Disease	
16	1	0	**Theory of Chromosomal Heradity** Gene Linkage Crossing Over	

Nangarhar medical Faculty

GRADE 1ST

Nangarhar medical Faculty

Anatomy Department Curriculum for Medical Faculty

Subject : Anatomy				
Grade : 1st			First Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	3	2	**General information about history of Anatomy,** Bones of the upper limb:- Clavicle, Scapula, Humerus	
			Radius, Ulna, Carpal bones, Phalanges	
			Bones of the lower limb:- Hip bone, Femur, patella, Tibia, Fibula, Bones of the foot (Tarsus+ Metatarsus+ Phalanges)	
2	3	2	**Vertebral column of the thorax:-** Cervical vertebrae , thoracic vertebrae	
			Lumbar vertebra: - Sacral, Coccygeal.	
			Bones of the thoracic cage:- sternum, ribs	
3	3	2	**Pelvis,** Apertura pelvis superior, Apertura pelvis inf, pelvic diameter.	
			Frontal bone, Ethemoid bone	
			Parietal bone, Sphenoid bone	
4	3	2	**Bones of the Fetal skull,** Bones of the face, Maxilla, Mandible.	
			Temporal bone, Occipital bone.	
			Lachrymal bone, Nasal bone, Vomer bone, Polatin.	
5	3	2	**Zeugmatic bone,** inf nasal concha, Thyroid bone.	
			Ant Cranial fossa, Med cranial fossa, Post Cranial fossa	
			General information about joints, Fibrous joints (synarthosis), Classification of joints.	
6	3	2	**Cartilaginous joints,** Classification	
			Joints of the upper limbs, Sternoclavicular joints, Acromioclavicular joints, Shoulder joint.	
			Elbow joint, Radiocarpal joint	
7	3	2	**Intercarpel joint** Mediocarpal joint	
			Carpometacarpal joint, Metacarpophalangeal joint	

			Joints of the Lower Limbs :- Sacroiliac joint, pelvic Symphysis, Hip joint, Tibiofibular joints	
8	3	2	**Knee joint,** ankle joint, joint of the foot, intertarsal joint **Tarsometatarsal joint,** intermetatarsal joint, interphalangeal joint **Juncture Clumma vertebralis**, Sacroccoccygeal joint	
9	3	2	**Atlanto-occipital joint,** Atlanto-axial joint Atlanto-axial medianal joint. **Ligaments connecting the axis with occipital bones,** temporomendibular joint, Costovertebral joint Sternocostal joint. **General information about muscle,** The Upper limb muscles, holder muscle, Brachial muscle, Culcital fossa.	
10	3	2	**Fibrous and Synovial sheets of the hands,** Axillary fossa. **Ante brachial muscle,** muscle of the hands. **Muscle of the gluteal regions**, Muscle of the thigh.	
11	3	2	**Muscle of the Leg,** Muscle of the foot. **Retinaculum Extensorum,** Retinaculum flexorum, Trigonum Femoral, Lacuna musculum and Lacuna vasorum. **Femoral canal,** Adducter canal, Popliteal canal.	
12	3	2	**Muscle of the Face,** Muscle around the auricle, Muscle around the eyelids, Muscle around the mouth, Muscle the nose. **Lat. Part muscle of the neck,** Ant Part muscle of the neck, Post part of the muscle. **Muscle of the post Regions of the neck and trunk,** Erector spinal muscles.	
13	3	2	**Abdominal muscle,** Ant and Lat Muscle of the abdominal, Post abdominal wall muscles, Sup Abdominal wall muscles, Fascia of the ant, Lat Abdominal wall muscle. **Inguinal canal,** Inguinal fossa, Opening in the diaphragm. **Cervical plexus,** Superficial cervical plexus, Deep cervical plexus.	
14	3	2	**Brachial plexus Formation,** Musculocutaneus nerve,	

			Median nerve.	
			Ulnar nerve, Medialcutaneus nerve of forearm, Axillary nerve, Intercostal nerve, Medialcutaneus nerve of arm.	
			Lumber plexus, lliohypogastric nerve, llioinguinal nerve, Genitofemoral nerve.	
15	3	2	**Lat cutaneus nerve of thigh, Obtrator** nerve.	
			Femoral nerve	
			Sacral nerve	
16	3	2	**Sciatic nerve**	
			Pudental plexus	
			Coccygeal plexus	

Nangarhar medical Faculty

Anatomy Department Curriculum for Medical Faculty

Subject : Anatomy				
Grade : 1st			Second Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	3	2	**Heart,** Atria, Ventricles, Apex and base of the heart.	
			Blood supply of the heart, Veins of the heart, Nerve supply of the heart, Pericardium, Conducting system of the heart.	
			Valve of the heart, Surface marking of the cardiac valve on the thoracic cage, surface marking of the heart, Auscultatory area of the heart.	
2	3	2	**Arteria,** Pulmonary trunk and bronches, Aorta and bronches, Ascending aorta and bronches.	
			Aortic arch, Descending thoracic aorta Branchiaocephalic artery, Common carotid artery.	
			External carotid artery and bronches, Internal carotid artery and bronches, Circle of Willis.	
3	3	2	**Subclavian artery and bronches,** Axillary artery and brunches, Brachial artery and brunches.	
			Radial artery and bronches, Ulner artery and brunches.	
			Arteria anastomosis around the Elbow joint, Arterial Palmer arch.	
4	3	2	**Abdominal aorta,** Celiac trunk and bronches, Sup Mesenteric arteries, Inf. Mesenteric arteries.	
			Left gastric artery and bronches, Common hepatic artery and bronches, Spleenic artery and brunches.	
			Common iliac artery and bronches, External iliac artery and bronches, internal iliac artery and brunches.	
5	3	2	**Femoral artery and bronches,** Popliteal artery and brunches.	
			Post tibial artery and bronches, Ant. Tibial artery and bronches, Dorsal pedis artery and brunches.	
			Veins of the Lower extremity and tributaries.	
6	3	2	**I.V.C and tributaries,** Portal venous system of	

			abdomen, Portal vein.	
			Prtal systemic communication, Accessory portal vein.	
			Venous sinuses of the of the skull, Internal Jugular vein tributaries. External Jugular vein tributaries.	
7	3	2	**Vein of the face and neck.**	
			Vein of the trunk, Right and left Brachiocephalic vein and tributaries, S.V.C and tributaries.	
			General information about lymphatic system, Cisterna chili, Thoracic duct.	
8	3	2	**Digestive system,** Oral cavity, Tongue, Teath, Gums or gingiva.	
			Pharynx, Palatintonsil.	
			Esophagus, Stomach, Duodenum, small intestine.	
9	3	2	**Large intestine,** Appendix and cecum, Ascending colon, Transverse colon.	
			Descending colon, sigmoid colon, Rectum.	
			Anal canal, Anus.	
10	3	2	**Liver,** Gall bladder.	
			Parotid gland, submandibular gland, sublingual gland.	
			Pancreas, Spleen.	
11	3	2	**Respiratory system,** Nasus externus, Cavum nasi	
			Maxillary sinuses, Sphenoidal sinuses, Ethmoidal sinuses, Frontal sinuses.	
			Larynx, Cartilage, Situation, Muscles, Laryngeal joint ligaments.	
12	3	2	**Trachea,** Bronchii	
			Right and left Lungs, Lobar bronchus, Segmental bronchus.	
			Pulmonary vascultory area, Pleura, Pleural recessus, arteries, veins, nerve supply, lungs. Lymphatic.	
13	3	2	**Mediastinum,** Ant., Med & Post Mediastinum.	
			Kidney, Ureter.	
			Urinary bladder, Urethra	
14	3	2	**Male genital system: -** Sacrotum, Penis, Testis, Epididymis, Vase deferense.	
			Seminal vesicle, Ejaculatory duct, Bulbo-urethral gland.	
			Prostate, Paradidymis, Aberrant ductless.	
15	3	2	**Female genital system: -** Labia major, Labia minor.	
			Vaginal orifice, Bulb of vestibular glands, Mons	

			pubis.	
			Uterus, Ovarium, Uterine tube.	
16	3	2	**Vagina,** Hymen, Epoophorum, Parophorm.	
			Perineum	
			Perineal muscle and contents, Breast.	

Nangarhar medical Faculty

Histology Department Curriculum for Medical Faculty

Subject : Histology				
Grade : 1st			**First Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	2	2	**Introduction:-** General information Cytology, General histology, systemic histology.	
2	2	2	**Method of Study:** - Basic principle on histological techniques, Tissue preparation, section method. Smear method, special method.	
3	2	2	**Instruments:-** microscopy, Light microscope, Resolution, magnification, lens. Type of microscope, Electron microscope, phase contrast microscope, polarizing microscope, Examination on living cells and tissues.	
4	2	2	**Cell components:-** Organization of the Human body cells, tissues, organs, systems. Cytoplasm, organelles, inclusions, systems.	
5	2	2	**Intra Cellular substance and tissue fluid:-** Component and functions, Cell injury. **Tissues:-** Definition, Histogenesis, Embryologic origin, regeneration, function and pathological changes.	
6	2	2	**Epithelial tissues:-** Definition, Histogenesis, general characteristics, specialization of the surface of epithelium. Classification of epithelia, simple and stratified, Histophysiology, pathological changes.	
7	2	2	**Glands:-** Definition, Histogenesis, classification.	

			Exocrine and Endocrine glands, Histophysiology.	
8	2	2	**Connective tissues:-** cells (fibroblast, macrophages , mast cell, plasma cells, adipose cells, leukocytes). Intracellular substance (ground substance), fibers (Collagen, reticular, elastic), Matrix, Histogenesis, Histophysiology.	
9	2	2	**Adipose tissue:** - Unilocular, multilocular adipose tissue. Histological structure, Histogenesis, Histophysiology.	
10	2	2	**Cartilage:-** Histogenesis, Perichondrium, Types (hyaline fibrous, elastic cartilage). Growth, regressive changes, regeneration, Histophysiologies.	
11	2	2	**Bone:-** Eriostemon and Endosperm, Types of bone tissue (Component and Spongy), (Primary and Secondary), Bone cells (Osteoblasts, Osteo Progenitors, Osteocytes, Osteoclasts), Bone matrix (Nonorganic, Organic matrix). Histogenesis (membranous ossification, Endochondrial ossification) , Growth and remodeling of bone, fracture repair.	
12	2	2	**Bones and joints:-** Histophysiology of the bone & effects of different factors on the bone. Definition and Kinds of joints (Synarthrosis, amphyarthrosis, Diarthrosis)	
13	2	2	**Nerve tissue:-** Neuron (Perikaryon, Dendrites, Axons), Types of Neuron, Histophysiology, Degeneration and Regeneration. Nerve fibers (Schwann cells, Myelin sheath), Neuralgia, Nerve endings (Synapses, Sensory nerve endings, Motor nerve endings.	
14	2	2	**Muscles:-** General characteristics, Types, skeletal muscles (Organization of muscles and organ, histogenesis, morphology, innervations motor end-plate Histophysiology. Contraction mechanism regeneration, Cardiac muscles, characteristics, intercalated disks, differences between skeletal and cardiac muscles, Smooth muscle.	
15	2	2	**Blood :-** General consideration, formed elements of blood, Erythrocytes(shape, structure, Histophysiology and Erythron), Leukocytes (Classification, Number, Type)	

			Histophysiology (Neutrophils, Basophiles, Eosinophils, Lymphocytes, Monocytes), Platelets, Plasma	
16	2	2	**Hematopoiesis:-** Hematopoietic organs(intra uterine, extra uterine), Bone marrow, Monophyletic theory, Maturation of erythrocytes (Normoblastic and Megaloblastic Erythropoietin), Granulocytes.	
			Hematopoiesis:- Lymphocytes, Monocytes , Origin of platelets, Regulation of Hematopoiesis (Micro environment factors, Homoral factors)	

Nangarhar Medical Faculty

Histology Department Curriculum for Medical Faculty				
Subject: Embryology				
Grade: 1st				**First Semester**
Week	**Hour**		**Topic**	**Note**
	Theory	**Practical**		
1	1	1	**Introduction**: Definition, History, Parts of Embryology, Location of Embryology.	
2	1	1	**Reproductive system**: The female Genital system, The male Genital system.	
3	1	1	**Progenesis:** Gametes, Gametogenesis, Ovarian cycle, Clinical correlates.	
4	1	1	**Development**: Prenatal live, Postnatal live.	
5	1	1	**Per organogenesis**: Fertilization, Period of fertilization, Impotence of fertilization, Clinical correlates.	
6	1	1	**First week of development:** Cleavage, Development in days 3rd & 4th, Development in days 6th, Development in days 7th, Clinical correlates.	
7	1	1	**Second week of development:** Development in days 8th, Development in days 9th, Development in days 11th, Development in days 13th, Clinical correlates.	
8	1	1	**Third week of development:** Gastrulation, The primitive cardiovascular system, Notochord	

			formation, Allantoises, Development of germ disc, Clinical correlates, Neurolation, Development of somites, Development of intraembryionic coelom. Development of trophoblasts.	
9	1	1	**Embryonic period:** Organogenesis (Third to Eight weeks), Differentiation of Ectoderm, Differentiation of Mesoderm, Differentiation of Endoderm, Differentiation of Somites, Clinical correlates, Brief of organogenesis, Clinical correlates.	
10	1	1	**Fetal period:** Differentiation of fetus, Clinical correlates, Monthly change, Time of birth.	
11	1	1	**Fetal period:** fourth weekly development of fetal period), Clinical correlates, Premature & post mature babies.	
12	1	1	**Extra Embryonic membrane**: Placenta, Amnion, Chorion, Clinical correlates.	
13	1	1	**Extra Embryonic membrane:** Fetal membrane in twins, Clinical correlates.	
14	1	1	**Parturition:** Postnatal period, (Feto neonatal circulation).	
15	1	1	**Extra normal change in prenatal period:** Teratology, Definition, Essential of Teratology, Kinds of Teratogens, Revolution in prenatal period, Clinical correlates.	
16	1	1	**Effect on Embryogenesis:** Genetics and human development, Molecular biology of human development, In vitro fertilization, Prenatal diagnosis.	

Nangarhar medical Faculty

Histology Department Curriculum for Medical Faculty

Subject : Histology				
Grade : 1st			Second Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	2	2	**Introduction:-** Definition, General information about the structure of the organ, parenchyma, stroma. Hollow and Solid organs, Moist membranes.	
2	2	2	**Circulatory System: -** Heart, Layer of the heart, Endocardium, Myocardium, Pericardium. Cardiac Skeleton, Cardiac Valves, Impulse conducting System, Histophysiology, Pathological changes, Clinical considerations.	
3	2	2	**Blood Vessels: -** Arteries, General structure, Tunics, vasa vasorum, innervations, Large elastic arteries, Muscular or distributing arteries, Arterioles, Histophysiology, Changes in the arteries with age, Clinical consideration. **Veins:-** Veins of large and medium caliber, Venules, Valves of the veins, Clinical consideration , Capillaries: - Continues capillaries. Fenestrated capillaries, Sinusoids, Histophysiology, Vascular specializations, Clinical considerations, Blood vessels connections, Capillary bed, portal system, Arteriovenous Anastomosis. Lymphatic Vessels:- Lymphatic Capillaries, Larger lymphatic Vessels, Lymphatic ducts, Pathological changes, Clinical considerations.	

4	2	2	**Respiratory system: -** conducting portion, Nasal cavity, Respiratory epithelium, Vestibule, Olfactory, Respiratory region, Para nasal sinuses, Pharynx, Nasopharynx, Oropharynx, Laryngopharynx, Larynx: - (general structure, Mucous membrane, Cartilage of the larynx, Epiglottis, Vocal cord), Trachea, Layers, Bronchial tree. Bronchi:- (Extra Pulmonary Bronchi, Intra Pul Bronchi), Bronchiole, Histophysiology of conducting System, Respiratory Portion:- Respiratory Bronchioles, Alveolar ducts, Atrium, Alveoli, Alveolar wall, Epithelial lining cells, Surface cells, Blood air barrier, Pathological changes, Pleura, Histophysiology. Pathological changes, Clinical considerations.	
5	2	2	**Digestive System:-** Introduction, Histological Structure, Oral cavity, Layers, lips, Histologic structure in different regions. **Tongue:-** Papillae, Taste buds, Teeth and associated structure, General consideration, Enamel, Dentine, Cement, Pulp, Periodontal membrane, Gingiva.	
6	2	2	**Digestive tube:-** Basic pattern of the structure of the alimentary canal, Esophagus, Layers (Mucosa, Sub mucosa, Muscularis, serous and Adventitia), Glands:- Histophysiology, Stomach : (Regions, Layers, Glands, Cell Types, Protective mechanism, Histophysiology), Small intestine: (Segments, Plica Circularis, Villi, Microvilli, Layers, cells, Glands, Histophysiology) **Large intestine:-** Segments, Layers, Glands, Cells, Appendix, Rectum and anal canal, Difference between small and Large intestine, Histophysiology ,Clinical considerations.	
7	2	2	**Organ associated with the Digestive tract: - Salivary glands:-** Minor salivary glands, Major salivary glands, Basic structure, Serious cells, Mucous cell, Myoepithelial cells, Duct system, Pancreas:- structure, Exocrine Pancreas, Endocrine Pancreas. Liver:- General structure, Blood supply, Liver lobules, Cell types, Sinusoid, Portal area, Central Vein, Hepatic changes, Histophysiology, Bile ducts, Intra hepatic bile ducts, Extra hepatic bile ducts,	

			Gallbladder: General structure, Histophysiology, Peritoneum and mesentery. Definition and layers, Clinical considerations.	
8	2	2	**Integumentary System: -** **Skin:-** Basic facts about skin, Structure, Epidermis (Layers & cells), Keratinization, Melanin Production, Dermis, Subcutaneous tissue Histophysiology.	
			Cutaneus appendage: - Hairs, Nails, Sebaceous glands, Sweat glands, Clinical considerations.	
9	2	2	**Defense System:-** Introduction, Leukocytes, Mononuclear Phagocyte system, Immune system, Thymus glands: Histological organization, Cortex, Medulla, Histophysiology, Effects of different factors on thymus, Bursa: Definition and functions.	
			Lymph nodes:- Histological organization, Capsula and Trabecula, Lymph sinuses and lymphatic vessels, Cortex, Medula, Histophysiology, Spleen, General structure, White pulp, Red pulp, Capsula and trabeculae, Blood Supply, Histophysiology, Clinical considerations.	
10	2	2	**Endocrine System:-** Definition, Hypophysis: Definition, Adenohypophysis, Pars distal, Secretary cells, Pars tuberalis, Pars intermediate, Neuro secretary cells, Histophysiology, Clinical consideration, Thyroid:Folliculer cells, Para follicular cells, Histophysiology, Clinical consideration.	
			Parathyroid: Cells, Histophysiology, Clinical consideration. Adrenal: Cortex, Medulla, Histophysiology, Clinical consideration, Pineal body: Structure, Histophysiology, Clinical consideration.	
11	2	2	**Urinary System:-** **Kidney:-** Nephrones, Renal corpuscle, Proximal convoluted tubule, Loop of Henley, Distal convoluted tubule, Collecting tubules, Renal interstitial, Blood circulation, Juxtaglomerular apparatus, Histophysiology.	
			Extra renal passage: - Ureter, Urinary bladder, Urethra, Clinical Consideration.	
12	2	2	**Male Reproductive System:-** Definition and functions of primary sex organs, Secondary sex organs, Testis: Histophysiological structure (Seminiferous tubules, Cells representing stages in	

			spermatogenesis, Cells of sertoli), Spermatozoa, Interstitial Cells, Blood Testis Barrier, Excretory genital ducts, Epididymidis. ducts deferens.	
			Accessory genital glands:- Bulb urethral glands, Prostate, Seminal vesicle,Penis: Histological structure, Errection Mechanism, Clinical Consideration.	
13	2	2	**Female Genital System:-** Ovarian follicle, Primordial follicle, Growing follicle, Ovarian follicles, Corpus luteum. Corpus albicans, Histophysiology, Oviduct: gross structure, Histological structure, Histophysiology, Uterus: Gross structure, Histological layers (Myometrium, Endometrium, Perimetrium), Histophysiology. Vagina: Histophysiological structure.	
			Extra genitalia Pregnancy: - Lips, Clitoris, Vestibular glands. Placenta: Definition, Growth, Histological structure, Placenta barrier, secretions. Breast: Definition, Histological structure, Breast changes in deferent stage, Clinical Considerations.	
14	2	2	**Sensory Organs:- General information** **Eye: Layers:** External fibrous coat, Sclera, Cornea, Limbos, middle vascular coat, Choroids, Ciliary's body, Iris, internal nervous coat, Retina, photoreceptors, Histophysiology, Refractive media, aqueous humor, Lens, Vitreous body, optic nerve, Accessory structure, Conjunctiva, Eyelid, Lachrymal apparatus, Histological structure in different physiologic status and Clinical Considerations.	
15	2	2	Gustatory organ olfactory organ:- Definition. Taste bud, Olfactory mucosa, Olfactory epithelium, Histophysiological and Clinical Considerations.	
			Ear :- External ear:- Auricle, External Auditory meatus, histophysiology. Middle ear: Walls, Histological structure, Histophysiology. Internal ear: Osseous Labyrinth, Cochlea, Semicircular Canals, Membranous Labyrinth, Organ of equilibrium,, Organ of hear, Histophysiology and Clinical Consideration.	
16	2	2	**Nervous System: -** Peripheral Nervous System. Nerve ganglia, Peripheral nerve, Histophysiology.	
			Central nervous System:- Gray matter and white	

			matter Brain, Cerebrum, Brain stem, Cerebellum, Spinal Cord, Meninge, Durra matter, Arachnoids, Piamater, Choroids plexus, Cerebrospinal fluid, Clinical consideration.	

Nangarhar medical Faculty

Physic Department Curriculum for Medical Faculty

Subject : Biophysics				
Grade : 1 St			**Second Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	1	1	**Atom and it's Electronic orbital,** Atomic character, Bohr Atomic theory, Bohr first Axiom, Bohr Second Axiom, Production of Electric Current.	
2	1	1	**Electric Current Effects,** Thermal Effect of Electric current, Chemical Effect of Electric Current, Use of Electrolysis in medicine, Ionophotes, Magnetic Effect of Electric current, Capacitor and its use in medicine, Galvanic current, Galvanic Therapy, Protection from Electric Risks, Electrical Shock Electrofiotion, Current intensity, Types of Electric Current, Time of Passing Electric Current, Direction of Current in the body, Cause of Electric Died.	
3	1	1	**Biomechanics,** Arms, First type of arm, Secondary type of arm, Third type of arm, Body total Equilibrium, Central of mass, Central of mass in Static position, Central of mass in motion position, Biophysics of sound and mechanics of sound, Mechanism of hearing, Physical Diagnosis of Hearing Defects, Audiometer, Rinne Experiment.	
4	1	1	**Ultrasonic wave,** Physical and chemical property of ultrasound, Production of ultrasound, Property of piezoelectricity, Three portion of Quest, Mechanism of ultrasound and its uses. Biological Effects of ultrasound, Medical use of ultrasound.	
5	1	1	**The tissue Repairement**, Reduce of pain, Dazhronitu Disease Shocks, Obsess, in Zona, Diagnostics Ultrasound, Care in use of ultrasonic.	
6	1	1	**Exchange of heat in body,** Sensation of heat and cold protection of heat, Character of water and its Biophysical	

			Result, Specific heat of water, Heat of vaporization of water, Specific weigh of water and its changing with tempera true Ultraviolet ray and its Biological Effects Totalities, Natural sound of Ultraviolet Ray, Artificial source of Ultraviolet Ray, Biological Effects of Ultraviolet Light, Redness of skin, Reduce the brightness of skin, Therapeutics use of Ultraviolet, infrared Light, Sources of infrared Light, Medical Use of infrared Light.	
7	1	1	**Laser,** Types of laser, Laser of solid, Gas laser, Semiconductor laser Use of laser.	
8	1	1	**Nature of x-ray,** Machines of x-ray production, Property of x-ray, Property of ionization, Property of florescent of production, Chemical property of x-ray, X-ray propagation in A medium, Second ray, Simple diffuse of ray, Diffuse of ray with new wavelength, X-ray from Photoelectric, X-ray production from Materiality, Observation of X-ray.	
9	1	1	**Atomic number,** Density of body, Thickness of body, Filters, Measurement of x-ray, Quality Measurement of x-ray, Quantity Measurement of x-ray, Method of x-ray Measurement, Measurement of X-ray by ionization.	
10	1	1	**Unit of x-ray dose,** Absorb of dose, Unit of absorb dose, Contraction of Dosimeter, Ionization room, Machine of Measurement, Small Ionization room, Principal of Medical Diagnosis with X-ray, Insert power of X-ray, The index of Absorption of x-ray observation, Mechanism of Radiological image Formation, Radiology Machine, Condition for Radiography image, Localizer.	
11	1	1	**Introduction to Nuclear Energy,** Atomic Nucleuses and states, Energy level, Nucleuses instability, Potentially shell, Binding energy, Isotope, Isobar, isotones, isomer, Ray of Radioactive materials, Natural Radioactive materials.	
12	1	1	**Particle- Particle- ray,** Law of Radioactivity, Changing of the radioactive Material, Changing by Emission of- Practical, Changing by Emission of- Rays Period of Changing of Half life of Radioactive material, Production of Radioisotopes with helps of Charged Particles, Use of photons Energy, Reaction of Nuclear With Neutron.	
13	1	1	**Atomic reactor,** Producing of Radioisotopes From Derivative of production , Specification of Radioactivity and its Measurement, specific Activity, Specification and Measurement of Radioactive Material, ionization phenomenon, fluorescence phenomenon chemical property of ray, Other property of ray, Use of Radioisotopes in medical and Biological research, Marked molecules.	

14	1	1	**Radiology,** Tissue and cells exposed to radiation of ray, Amount of radiation ray, Damage from ionization ray, Radiation of large Amount of ray to whole body, Radiation of large Amount of ray to a limited portion of body for a long time.	
15	1	1	**Radiation of small Amount of ray in limited portion of body,** Mechanism of Biological effect of ray, Therapeutic property of x-ray and Radioactive, Ray of Radioactive. Material: - - Particles - -Particle --- rays, Radioisotopes, internal, method, External method Radiotherapy, Physical principle of Radiotherapy.	
16	1	1	**Superficial Radiotherapy of Body,** Deep Radiotherapy of Body, Changing Radiotherapy, Protection against the risk of rays, Protection against Radiobiology & Radiotherapy diagnostic by instruments, Protection of patenting in Diagnostic and Radiotherapy facility, Protection of health worker in Radiobiology Diagnostics, Protection from ray in Radiotherapy, Method of production of Radioactive material, Protection from—particle, Protection from --- particle, Protection from rays, Standard and Control from the protection of rays, Data table of permissible dose Quantity--, for three amount in the circle parts of body, Maximum Quantity working dose, Classifying of people from maximum Radiation point of view, Control and Protection of people and building film dose meter- - thermophotolonisone.	

Nangarhar medical Faculty

Foreign Language Department Curriculum for Medical Faculty

Subject : English				
Grade : 1st			**First Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	0	4	**Friends,** talking about friends, relatives and famous people. **Grammars**, questions forms, stress in question, reading passage.	

2	0	4	**Friends,** talking about friends, relatives and famous people. **Grammar,** questions forms, stress in question / listening.	
3	0	4	**Relax:** talking about stress and ways of relaxing. **Grammar:** Present perfect tense, simple present, reading passage.	
4	0	4	**Relax:** talking about stress and ways of relaxing. **Grammar:** Present perfect tense, simple present, reading passage.	
5	0	4	**Dating:** talking about first visit and quality of ideal partner. **Grammar:** Simple past tense, Compound adjective listening.	
6	0	4	**Dating:** talking about first visit and quality of ideal partner. **Grammar:** Simple past tense, Compound adjective reading passage.	
7	0	4	**Adrenalin:** talking about exciting experience, listening. **Grammar:** Comparative and Superlative adjective, telling. Stories, anecdotes etc, reading passage reading passage.	
8	0	4	**Adrenalin:** talking about exciting experience. **Grammar:** Comparative and Superlative adjective, telling. Stories, anecdotes etc, reading passage reading passage.	
9	0	4	**Kids:** talking about Children and good parents. **Grammar:** Defining relative clauses reading passage, listening.	
10	0	4	**Kids:** talking about Children and good parents. **Grammar:** Defining relative clauses reading passage, listening.	
11	0	4	**News:** talking about celebrating gossips and privacy. **Grammar:** Passive voice reading passage, listening.	
12	0	4	**News:** talking about celebrating gossips and privacy. **Grammar:** Passive voice reading passage, listening.	
13	0	4	**Party:** talking about festivals **Grammar:** future tense reading passage listening.	

14	0	4	**Party:** talking about festivals **Grammar:** future tense reading passage listening.	
15	0	4	**Review**	
16	0	4	**Review**	

Nangarhar medical Faculty

Foreign Language Department Curriculum for Medical Faculty

Subject : English				
Grade : 1st			**Second Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	0	3	**Soap:** talking about family relationship and characters. **Grammars:** reported speech, phrasal verbs, reading and listening.	
2	0	3	**Soap:** talking about family relationship and characters. **Grammars:** reported speech, phrasal verbs, reading and listening.	
3	0	3	**Time:** talking about rules and regulation. **Grammar:** model auxi, time preposition, reading passage.	
4	0	3	**Time:** talking about rules and regulation. **Grammar:** model auxi, time preposition, reading passage.	
5	0	3	**Journey:** talking about reasons for travelling. **Grammar:** modals, for deduction, listening and reading passage.	
6	0	3	**Journey:** talking about reasons for travelling. **Grammar:** modals, for deduction, listening and reading passage.	
7	0	3	**Basics:** talking about eating habits, anecdote, designing a meal. **Grammar:** quantifiers, countable uncountable noun reading pas.	
8	0	3	**Basics:** talking about eating habits, anecdote, designing a meal. **Grammar:** quantifiers, countable uncountable	

			noun reading pas.	
9	0	3	**Communication:** making phone call talking about male and female stereotypes. **Grammar:** Real condition, first condition and zero condition listening.	
10	0	3	**Communication:** making phone call talking about male and female stereotypes. **Grammar:** Real condition, first condition and zero condition listening.	
11	0	3	**Style:** talking about getting ready to go out **Grammar:** Unreal condition, reading and listening.	
12	0	3	**Style:** talking about getting ready to go out **Grammar:** Unreal condition, reading and listening.	
13	0	3	**Age:** talking about age limit. **Grammar:** future tense reading passage listening.	
14	0	3	**Age:** talking about age limit. **Grammar:** future tense reading passage listening.	
15	0	3	**Review**	
16	0	3	**Review**	

Nangarhar medical Faculty

Islamic Study Department Curriculum for Medical Faculty

Subject : Islamic study				
Grade : 1st			**First Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	1	0	**Doctor quality according to Islam**	
2	1	0	**Importance of Moral & good Nature in Islam**	
3	1	0	**General information**	
4	1	0	**Definition of Moral & Ethics**	
5	1	0	**Importance of Moral & good Nature In the new Epoch**	
6	1	0	**Doctor specification in Islam**	

7	1	0	General information	
8	1	0	Organized and disciplined	
9	1	0	Non Fanaticism	
10	1	0	Good relatives between doctors	
11	1	0	Clear teaching & getting medical information	
12	1	0	Non Attention just to world material	
13	1	0	Responsibility about state about oath doctors	
14	1	0	General information	
15	1	0	General information	
16	1	0	General information	

Nangarhar medical Faculty

Islamic Study Department Curriculum for Medical Faculty

Subject : Islamic study				
Grade : 1st			Second Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	0	Definition of worship عبادت	
2	1	0	Pillar of worship in Islam	
3	1	0	Conduction of worship in Islam	
4	1	0	Worth of worship in Islam	
5	1	0	Unity of worship in Islam	
6	1	0	Difference between Muslim & non Muslim Worship	
7	1	0	Innovation in worship بدعت په عبادت کي	
8	1	0	Deviation in worship انحراف په عبادت کي	
9	1	0	Philosophy of worship	
10	1	0	Philosophy of Pray	
11	1	0	Philosophy of chariz (Zakat)	
12	1	0	Philosophy of Fasting روژه	
13	1	0	Philosophy of Fasting روژه	
14	1	0	Philosophy of Hajj	
15	1	0	Philosophy of Hajj	
16	1	0	Philosophy of Hajj	

Nangarhar medical Faculty

Physiology Department Curriculum for Medical Faculty

Subject : Physiology				
Grade : 1st			Second Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	2	2	**Red blood cells (**Structure and Function), Regulation of RBC production, Formation of Hemoglobin, Destruction of RBC, Anemia & Polycythemia.	
			Resistance of the body to infection, Monocytes, Macrophage System, inflammation, Leukemia.	
2	2	2	**Homeostasis and coagulation,** Condition that causes excessive bleeding.	
			Anticoagulant and blood coagulation Test, Blood Group, Agglutinogen, Agglutination.	
3	2	2	**Blood Typing & Rh blood Type,** Transfusion & transfusion reaction.	
			Transplantation of tissue and organs	
4	2	2	**General information about the immunity,** innate immunity and acquired immunity.	
			Preprocessing of the T and B lymphocytes, Antibodies reaction, Mechanism of activation of a clone of lymphocytes.	
5	2	2	**Humoral immunity and the antibodies,** Several types of T-cells and their different function, Tolerance of the acquired immunity system to ones own tissue.	
			Role of the suppressor T- cells in the development of tolerance, Vaccination, Allergy caused by activated T-cells, Delayed reaction allergy, Allergies in the so called allergic person with excess igE antibodies.	
6	2	2	**Organization of the Cells,** Cytoplasm and its organelles, Functional system of the cells	
			Extraction of energy from the nutrients, Enzymatic control of synthesis, Cell functions and cell reproduction.	
7	2	2	**Synthesis of the substances in the cell,** Control of cell growth and reproduction.	
			Membrane Physiology, transport of Ions and Molecules through the cell membrane.	

8	2	2	**Brief anatomic/ Histological structure,** Muscle fiber, general Mechanism of Muscle contraction, interaction of Actin-myosin filament and role of calcium ion, Energetic of Muscle contraction, Types of muscle contraction and muscle fiber, Mechanism of skeletal muscle contraction, Remodeling of muscle to match function. **Excitation of skeletal muscle,** transmission of impulse from nerve to muscle fibers, Muscle action Potential, Excitation and contraction of the smooth muscle, Comparison of smooth muscle contraction with skeletal muscle contraction and Regulation of contraction by calcium ions, Neuromuscular junction of the smooth muscle.	
9	2	2	**Anatomic/ Histological structure of the neuron and classification of the neuron.** **Membrane Potential,** Properties of nerve fibers.	
10	2	2	**Accommodation,** Identification. **Synapse,** Transmitters.	
11	2	2	**Anatomic structure of the respiratory System and respiration,** Pulmonary ventilation Phase and respiratory unit, Non Respiratory function of the respiratory system. **Mechanism of respiratory and respiratory pressure,** Pulmonary function test, Alveolar ventilation and exchange respiratory gasses.	
12	2	2	**Diffusion of gasses,** Transport of respiratory gasses in Blood, Oxygen and carbon dioxide transport in the blood. **Diffusion of oxygen in the arterial blood,** tissue respiration, Regulation of respiration.	
13	2	2	**Brief anatomy and histology of the Digestive system,** Motility of the gastro intestinal system, Control of motility of gastro intestinal system. **Propulsion and mixing of food in the alimentary tract,** Secretary functions of the alimentary tract.	
14	2	2	**Secretary function of the alimentary tract,** Secretion of bile by the liver **Pancreatic secretions**	
15	2	2	**Digestion in the alimentary tract,** Absorption in the alimentary tract. **Physiologic disorders of the Gastrointestinal tract**	
16	2	2	**Neonatal functional growth and development,** Functional systemically change of the neonate. **Functional Systemically change of the neonate**	

Nangarhar medical Faculty

Forensic Medicine Department Curriculum for Medical Faculty

Subject : Medical Ethics				
Grade : 1st			Second Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	0	**The basic principles Medical profession Ethics & Deontology** Doctor relations with patient.	
2	1	0	**The basic principles Medical profession Ethics & Deontology** Doctor relations with patient.	
3	1	0	**Doctor relation and patient relations** Doctor relations with rest of Medical personal	
4	1	0	**Doctor particulars in Varies Medical fields** Deontology in surgery	
5	1	0	**Deontology in Obstetrics and Gynecology** Deontology in Stomatology.	
6	1	0	**Deontology in Interior Clinic** Medical Deontology in Pediatric Medicine.	
7	1	0	**Medical Deontology in Experiment of forensic Medicine** Medical secret.	
8	1	0	**Mistakes and coincidences in Medicine** Latrogenia	
9	1	0	**Bad coindeidence conclusion** Medical personal responsibilities along Sid of professional penalty.	
10	1	0	**Illegally abortion** Abstention from people helps.	
11	1	0	**Abusing from power or Job position** Dissimulation documents.	
12	1	0	**Non – permissible Experience on human** Offending from Epidemic Provision.	
13	1	0	**Illegally Medical profession** Barreling of men and women without Medical indication.	
14	1	0	**Medical negligence's**	

			Way of prevention from provision of Medical professional.	
15	1	0	**Expert of forensic Medicine and Violations of Medical professional personnel**	
16	1	0	**Medical Swearing Formula and their explanation**	

Nangarhar medical Faculty

GRADE 2 ND

Nangarhar Medical Faculty

Physiology Department Curriculum for Medical Faculty				
Subject: Physiology				
Grade: 2nd			**First Semester**	
Week	**Hour**		**Topic**	**Note**
	Theory	**Practical**		
1	3	1	**Introduction to endocrinology,** Mechanism of hormone action.	
			The pituitary gland and Growth hormone.	
			The posterior pituitary gland and its relation to hypothalamus.	
2	3	1	**The thyroid metabolic hormones.**	
			Function of the thyroid hormones in the tissue and regulation of thyroid hormones.	
			The adrenocortical hormones.	
3	3	1	**Glucocorticoids**, abnormalities of adrenocortical secretion	
			Insulin, glucagons and diabetes mellitus.	
			Parathyroid hormones and calcitonin.	
4	3	1	**Glucocorticoids**, abnormalities of adrenocortical secretion	
			Insulin, glucagons and diabetes mellitus.	
			Parathyroid hormones and calcitonin.	
5	3	1	**Anatomophysiology of male sex organs**	
			Function of the seminal vesicle and prostate, The male sexual act.	

			Testosterone and male sex hormones, Physiologic disorders of male sexual function.	
6	3	1	**Physiologic anatomy of female sexual organs**, ovarian follicle growth. Ovarian hormones and their fuction. Regulation of menstrual cycle, puberty and menarche	
7	3	1	**The female sexual act** **Maturation and fertilization of the ovum** **Function of the placenta.**	
8	3	1	**Physiology of the pregnancy.** **Parturition** **Lactation**	
9	3	1	**Brief anatomophysiology of the heart and vessel** **Physiology of the cardiac muscle** **Function of different parts of the heart**	
10	3	1	**Homodynamic events of the heart during the cardiac cycle and regulation of the heart pump.** **The normal electrocardiography** **Methods of recording and interpretation of ECG.**	
11	3	1	**Physiologic changes of the ECG** **ECG changes in various cardiac disorders** **Overview of the circulation**	

12	3	1	**Arterial pressure,** Puls **Capillary circulation**, Lymphatic system. **Vein circulation**, Pulmonary and coronary circulations.	
13	3	1	**Brief anatomophysiology of the urinary system** **Glomerular filtration** **Reabsorption and secretion in the tubules**	
14	3	1	**Osmolarity of the body fluids** **Excretion by the kidney and control of acid-base** **Physiology of the other part of the urinary tract**	
15	3	1	**Osmolarity of the body fluids.** **Excretion by the kidney and control of acid-base** **Physiology of the other part of the urinary tract**	
16	3	1	**Osmolarity of the body fluids.** **Excretion by the kidney and control of acid-base** **Physiology of the other part of the urinary tract**	

Nangarhar medical Faculty

Physiology Department Curriculum for Medical Faculty

Subject : Special Sense Physiology				
Grade : 2 nd			Second Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	3	1	Brief anatomic/Histological structure of the eye.	
			Physical principle of optics and optic of the eye.	
			Error of refraction, ophthalmoscope.	
2	3	1	Receptor and neural function of the retina.	
			Visual pathway and visual cortex.	
			Perimetery, eye movement and their control.	
3	3	1	Brief anatomphysiology of the auditory system.	
			Cochlea and Organs of corti	
			Determination of loudness and frequency of the sound	
4	3	1	Auditory pathway and auditory cortex	
			Audio graph and types of deafness	
			Equilibrium and structure of related organs	
5	3	1	Equilibrium receptors, their stimulation and pathways	
			Sense of taste, Taste receptors	
			Sense of taste, Taste Pathways	
6	3	1	Sense of smell	
			Physiology of the skin	
			Skin receptors and their Adoption	
7	3	1	Brief anatomy of the central nervous System	
			Motor function of the spinal cord, the cord reflexes	
			The muscle receptors	
8	3	1	The Flexor reflex	
			The Scratch Reflex	

			Cortical and brain stem control of motor function	
9	3	1	**The motor cortex and the corticospinal tract** **Role of the brain stem in controlling motor function** **Vestibular sensation and the maintenance of equilibrium**	
10	3	1	**The cerebellum,** the Basal Ganglia and Overall Motor Control **The cerebellum and its motor function** **The cerebral cortex,** Intellectual function of the brain and learning.	
11	3	1	**Function of the specific cortical areas** **Function of the brain and its communication** **Function of the Corpus callusum and anterior commisura**.	
12	3	1	**Somatic sensation** **The limbic system** **The hypothalamus**	
13	3	1	**Specific function of the other parts of the limbic system** **Sleep** **Brain waves**	
14	3	1	**Psychotic Behavioral and Dementia** **General organization of the Autonomic Nervous system** **Basic characteristerics of sympathetic and parasympathetic function**	
15	3	1	**The Autonomic Reflexes** **Cerebral blood flow** **The cerebrospinal fluid**	
16	3		**Synapse of the CNS** **Some important characteristics of the synaptic transmission.** **Brain metabolism**	

Nangarhar Medical Faculty

Anatomy Department Curriculum for Medical Faculty				
Subject: Anatomy				
Grade: 2nd			First Semester	
Week	Hour		Topic	Note
	Theory	Practical		
1	3	2	Endocrine Glands: Thyroid gland, Parathyroid glands Thymus Suprarenal glands Tests and Ovarian	
2	3	2	Hypophysis, Pancreas, pineal body, Central nerves system, formation of neural tube S Pinal cord, Medulla oblongata.	
3	3	2	Pons Cerebellum Fourth Ventricle	
4	3	2	Mid braine, Pendunculus, Diencephalon, Thalamus Metathalamus, Epithalamus, Hypothalamus	
5	3	2	Third ventricle Hypophysis, Lobus mscles, Limbique lobe.	
6	3	2	Cerebrum, Commissura iterhemispherica, Corpus, callosum. Fornix, Septum pellucidum, Corpus striatum, Caudat nucleus, Lentiforme nucleus, Clustrum.	
7	3	2	White mater of the Cerebrum, Lateral Ventricle of the Brain. Main functional areas of cerebral cortex.	
8	3	2	Voluntary motor muscles pathway of trunk and limbs,	

			Voluntary motor muscles pathway to cranial nerves.	
			Secondary motor pathway, Sub cortical or Extrapyrmidal tract.	
9	3	2	**Sensory pathway and deep consciousness sensory pathway,**	
			Deep unconsciousness sensory pathway. Connecting tract,	
			Cranial meningia, Spinal meningia.	
10	3	2	**Cerebrospinal Fluid (C.S.F).**	
			Cranial nerves, olfactory nerves, optic nerve	
			Via optica.	
11	3	2	**Oculomotor nerve, trochlear nerve, abductor nerve.**	
			Trigeminal nerve, ophthalmic nerve (V1).	
			Maxillary nerve (V2).	
12	3	2	**Pterygo palatine ganglion,**	
			Otic ganglion	
			Ciliary's ganglion.	
13	3	2	**Mandibular nerve, Fascial nerve,**	
			Stato-acustic nerve.	
			Glossopharyngial nerve, Accessory nerve.	
14	3	2	**Vagus nerve,**	
			Hypoglossal nerve	
			Sympathetic, parasympathetic system	
15	3	2	**The eye ball, Fibrous coat, Vascular coat, Internal coati.**	
			Vitreous body, Aqueous Humour, Iris, lens, Palphebra	
			Conjunctiva, Lachrymal glands.	
16	3	2	**Vestibulo-cochlear organ, External ear, Mddle ear, Tympanic cavity and membrane, Auditory tube, Mastoid, Antrum, The ear ossicles.**	
			Internal ear, bony labyrinth, membranous labyrinth, saccule + utricle	

			Membranaceous cochlea, modiolus, skin	

Nangarhar medical Faculty

Biochemistry Department Curriculum for Medical Faculty

Subject : Biochemistry				
Grade : 2 nd			**First Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	2	2	**Carbohydrate:-** Introduction, Definition, Classification, Sugar Exhibit Various forms of isomers (D and L isomerism, Asymmetric carbon, Optical activity, Alpha and beta anomers, pyranose and furanose ring structure, Epimer, Aldose- Ketoses isomerism)	
			Chemical properties of Monosaccharide:- Reactions with Hydrazine's to form Osazones, Oxidation to produce sugar acids, Reduction action of sugar in Alkaline solution, Action of acids, Action of bases, Reduction of Sugar to form sugar alcohols, reaction of aldoles with HCN	
2	2	2	**Cyclic structure of Carbohydrates:-** Cyclic structures, Mutarotation, Anomers and Anomeric carbon.	
			Monosaccharide Disaccharide :- Introduction of the most important monosaccharide, Introduction of Disaccharide, Maltose, Lactose, Sucrose.	
3	2	2	**Poly saccharides:-** Introduction, Homo Poly saccharrides (Starch, Glycogen, Inulin, Cellulose, Dextrin) Hetro Poly Saccharrides (Hyaluronic acid, Chondrotin sulfate, Heparin) and Glycoprotein's	
			Lipids:- Introduction, Classification, Derived Lipids: Fatty acids (Definition, Types, Essential fatty acid, Melting point, Eicosanoids) Glycerol.	
4	2	2	**Steroids and Sterols:-** Introduction, Cholesterol, Other Sterol: 7-dehydrocholestrol. **Simple Lipids:** Introduction, Neutral fats or Triglyceris, Waxes. **Compound Lipids:-** Introduction, 1-phospholipids , Diphosphatidylglycerol, lecithin's, cephalins, phosphotidyl	

			serine, phosphotidyl inositol, lyso phosphatides, plasmalogens, shingomyeline, 2-Glycolipids (cerebrosides, Ganglosides).	
			Amino acid and Proteins:- Introduction, Classification and structure of Amino acids, Essential Amino acids,Physicochemical Properties.	
5	2	2	**Properties of Amino acids:-** Chemical Properties: Due to Carboxylic Group(Formation of Ester, Formation of Amide, Formation of Amine by Decarboxylation) due to Amine Group (Salt formation with acids, Acylation, Methylation) Reaction with HNO2, Reaction with CO2, Oxidative reamination. Peptide Bond Properties:- Classification, Structure, Reaction of Protein (Reaction with water, Denaturation, Reaction with Ions)	
			Nucleic acid:- (DNA, RNA), Nucleoprotein, base purine, Pyramidine, Sugar, nucleotides, nucleosides	
6	2	2	**Vitamins: -** (Introduction, Classification) Fat Soluble Vitamins. **Vitamin A:-** (Structure, form, Dietary Sources, Daily Requirement, Absorption, Storage & transport, Function of Vitamin A).	
			Vitamin D and E :- (Structure, Forms, Dietary Sources, Daily Requirement, Absorption, Storage and Transport, Functions of Vitamin D and Vitamin E.	
7	2	2	**Vitamin K :-** Structure, Form, Dietary Sources, Daily Requirement, Absorption, Storage and Transport, Functions of Vit K. **Vit F**: - Introduction.	
			Water Soluble Vitamins: - Vit C, Vit B1, Vit B2:- Structure, Metabolism, Sources, Metabolic Role, Deficiency of some vitamins, Daily requirement.	
8	2	2	**Vit B5, Vit B6, Vit PP: -** Structure, Metabolism, Sources, Metabolic Role, Deficiency of some vitamins, Daily requirement.	
			Vit H, Vit B12, Vit C: - :- Structure, Metabolism, Sources, Metabolic Role, Deficiency of some vitamins, Daily requirement.	
9	2	2	**Enzymes:-** Introduction, properties, factors affecting Enzyme activity, Mechanism of Enzyme action, Enzyme inhibition, Regulation of Enzyme activity.	
			Enzymes:- Classification, Role of metabolism in Enzymes activity. Co Enzymes, Diagnostic value of Enzyme levels.	
10	2	2	**The biochemistry of the gastrointestinal tract:-**	

			Introduction, Digestion and absorption in mouth, Digestion and absorption in stomach, Bile and role of it in Digestion.	
			The biochemistry of the gastrointestinal tract:- Digestion and absorption of Carbohydrates, Digestion and absorption of Fats and cholesterol, Digestion and absorption of Protein.	
11	2	2	**Metabolism of Water and Non Organic Substances (Electrolytes, Minerals and Trace Elements):-** Introduction, Fluid Components of the Body, Determination of Body Fluid Components, Gain and loss of body Water, Regulation of water Balance, Effects of a Pure Water, Deprivation, Water Excess or Water intoxication.	
			Mechanism of Water and Non Organic Substances (Electrolytes, Minerals and trace elements):- Metabolism of Non Organic Substances, Introduction, The electrolytes of Body fluids, Sodium, Potassium, Magnesium, Chloride.	
12	2	2	**Metabolism of Water and Non Organic Substances (Electrolytes, Minerals and trace Elements:-** Metabolism of Minerals and Trace Elements, Introduction, Iron, Manganese, Calcium, Phosphorus, Zinc, Molybdenum, Chromium, Selenium, Iodine, Sulfur, Fluorine, Nickel, Copper, Cobalt, Aluminum (Aluminum) and Silicone.	
			Metabolism of Carbohydrates:- Introduction, **Glycolysis: -** Introduction, Reaction, Regulation.	
13	2	2	Metabolism of Carbohydrates: - Enzymes and Coenzymes of glycolysis Reversion of Glycolysis. Formation and Fate of Pyrovic acid.	
			Citric acid Cycle: - Reaction, Regulation.	
14	2	2	**Citric acid Cycle: -** Bioenergetics (Calculation of ATP Moles which Produce in Glycolysis and Citric Cycle from Glucose).	
			Electron trans port system and oxidative Phosphorylation:- Introduction, Reaction and Regulation.	
15	2	2	**Hexose Mono Phosphate (HMP) Shunt (Pentose Phosphate Pathway) :-** Introduction, Regulation, Metabolic Significance.	
			Metabolism of Glycogen Glycogenesis:- Glycogenolysis: - Introduction, Reaction and Regulation.	
16	2	2	**Metabolism of Glycogen Glycogenesis:-** Glycogenolysis : Regulation of Glycogen Metabolism, Inherited Disorders (Glycogen storage Disease or GSDs).	
			Metabolism of Galactose: - Introduction, Metabolic Pathway, Biosynthesis of Lactose. **Metabolism of Fructose:-** Introduction, Metabolic Pathway.	

Nangarhar medical Faculty

Biochemistry Department Curriculum for Medical Faculty

Subject : Biochemistry				
Grade : 2 nd			**Second Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	2	2	**Metabolism of Lipids:-** Introduction, Activation of Fatty acid, Carnitine and its Role in F.A	
			Metabolism, Oxidation of Fatty Acids, Formation and Utilization of Ketone Bodies:- {Beta Oxidation (Beta Oxidation of Saturated F.As, Beta oxidation of Odd Carbon F.As, Beta Oxidation of Saturated F.As)}, Ketosis or Ketoacidosis.	
2	2	2	**Calculation of Energy of Fatty Acids combustion in the body Biosynthesis of the fatty acids: -** introduction, Biosynthesis of Saturated fatty acids, Biosynthesis of Unsaturated fatty acids.	
			Biosynthesis of Triglycerides, Biosynthesis Phospholipids: - (Triacylglycerols). Biosynthesis of Glycerophospholipids (Lecithin, Phosphatidyl serine, Phosphatidyl Ethanolamine, cardiolipine, Plasmalogens.	
3	2	2	**Biosynthesis and Catabolism of Sphingolipids:-** Biosynthesis of Sphingosine, Biosynthesis and catabolism of (Ceramide and Sphingomyeline Glucocerebroside Galactocerebrosides, Sulfa tide, ceramide Lacto side, Ceramide Tri hexaoside and Gangloiside).	
			Prostaglandins, Prostacyclines and Thromboanes, Leukotrienes (LTs):- (Introduction, Structure, Metabolism and Functions) , Chemistry and Functions.	
4	2	2	**Control of Fat Metabolism, Role of Liver in Lipid Metabolism.**	
			Plasma Lipoproteins and their Metabolism:- Lipotropic Factors, Role of Adipose tissues in Fat Metabolism, Metabolism of Free Fatty acids.	

5	2	2	**Metabolism of Cholesterol:-** Introduction, Biosynthesis, Regulation, Function of Cholesterol, Transport of Cholesterol.	
			Metabolism of Cholesterol:- Factors Affecting Plasma Cholesterol Level and Fate of Cholesterol.	
6	2	2	**Metabolism of Proteins and Amino acids: -** introduction, Nitrogen Balance, Dissimilation of Amino acids or N-Catabolism of amino acids {Transamination, Deamination (Oxidative and Non Oxidative)}	
			Urea Formation in Krebs-Heneseleit (Urea) Cycle: - Biosynthesis, Regulation of urea Synthesis, Clinical Significance of Urea, Inherited Disorder Associated with Urea Cycle.	
7	2	2	**Metabolism of Amino acids: -** Glycine, Creatine and Creatinine, Alanine, Valine, Leucine, Isoleucine, Serine, Methionine.	
			Metabolism of Amino acids: - Cystiene, Glutamic acid, Glutamine, Aspartic acid, Asparagin, Arginine and Lysine.	
8	2	2	**Metabolism of Amino acids: -** Ornithine, Citrulline, Histidine, Tryptophan, Proline, Hydroxi proline, Phenylalanine, Tyrosine.	
			Metabolism of pieces which have one Carbone.	
9	2	2	**Metabolism of Pyramidine and Purines: -** Biosynthesis and Catabolism of Pyramidines.	
			Metabolism of Pyramidine and Purines: - Biosynthesis and Catabolism of Purines. Uric acid Metabolism and Clinical Disorders of Purines and Pyramidines Metabolism.	
10	2	2	**Biosynthesis of DNA.**	
			Biosynthesis of RNA (mRNA, tRNA, r RNA)	
11	2	2	**Biosynthesis of Proteins:**	
			Mutation	
12	2	2	**The Biochemistry of Endocrine Glands: General Mechanism of Action of Hormones:** Introduction, Classification, Factors Regulating Hormone Action, General Properties of Hormones.	
			Pituitary Hormones:- Introduction, Hormone of the Ant Pituitary {Growth (Chemistry, Functions, Regulation of growth Hormones, Secretion, Clinical importance)}	
13	2	2	Pituitary Tropic Hormones:- (Regulation of Secretion and Functions) such as prolactin,	

			Gonadotropines, FSH and LH, Thyrotrophic Hormones (TSH) and Adrenocorticotropic Hormone (ACTH)	
			Hormone of Middle Lobe of the Pituitary (Melanocyte Stimulating Hormones): - Function, Clinical importance, Regulation of Secretion. **Hormone of the Posterior Pituitary Lobe (Vasopressin, Oxytocin):-** Function and Clinical importance, Abnormalities of Pituitary Function	
14	2	2	**Thyroid Gland Hormones (Thyroxin, Tri-iodothyronine: -** introduction, Metabolism, Mechanism of Action, Regulation. Abnormalities.	
			Parathyroid Gland and their Hormones: - introduction.	
			Paratharmone, Calcitonine: - (Chemistry, Biosynthesis, Metabolism, Mechanism of action, Action, Regulation, Abnormalities of Parathyroid Function)	
15	2	2	**Pancreas and its Hormones:-** Introduction. **Insulin, Glucagon's:-** (Chemistry, Biosynthesis, Secretion, Regulation, Transport and Metabolism, Mechanism of Action, Metabolic Role and Functions of Insulin). Description like insulin, Somatostatin (Chemistry and Functions)	
			Adrenal Glands and their Hormones: - Introduction. **Adrenal Cortex and Steroid Hormones: -** (Biosynthesis, Secretion and Transport, Mechanism of Action, Actions, Regulation, Abnormalities. **Glucocorticoids, Mineral-Corticoids and Cortical Sex Hormones (Androgens and Estrogens):-** Description like Glucocoticoids.	
16	2	2	**Adrenal Medulary Hormones (Epinephrine and Nor epinephrine):-** introduction, Metabolism, Mechanism of Action, Metabolic Effects.	
			Abnormalities or Clinical Aspects.	

Nangarhar medical Faculty

Microbiology Department Curriculum for Medical Faculty

Subject : Microbiology				
Grade : 2 nd			First Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	2	2	**Morphology of Micro Organisms:-** Definition, Basic types of Microbes.	
			Morphology of Micro Organisms:- Differences between eukaryotes and prokaryotes, Optic methods.	
2	2	2	**Morphology of Micro Organisms: -** Structure of Eukaryotic Cells, Structure of Prokaryotic cells.	
			Morphology of Micro Organisms: - Simple stain and other stains Spheroblast and protoplast, L-form bacteria.	
3	2	2	**Morphology of Micro Organisms: -** Endospore.	
			Morphology of Micro Organisms:- Classification of Bacteria and five Kingdome classification.	
4	2	2	**Physiology of Micro Organisms: -** Biochemical structure of microbial cell.	
			Physiology of Micro Organisms: - Media and its preparation, Growth of micro-Organism.	
5	2	2	**Physiology of Micro Organisms:-** Culture, Characters of Bacteria.	
			Physiology of Micro Organisms: - Respiration of Microbes.	
6	2	2	**Physiology of Micro Organism: -** Isolation of Micro Organism in pure Clature.	
			Physiology of Micro- Organism: - Microbes Enzymes, Antibiogram.	
7	2	2	**Microbial Flora: -** Role of Resident flora. Normal Flora of the skin.	
			Microbial Flora: - Mouth and Upper respiratory tract flora. Intestinal, Urethra, Vaginal and Eye flora.	
8	2	2	**Infections: -** Microbes, Toxins, Exotoxin and Endo toxins. Period of an infectious disease.	

			Infections: - Clinical form of infections. Distribution, severity of infectious disease.	
9	2	2	**Immunology: -** Specific and Non Specific host defense mechanism.	
			Immunology: - Specific and Non Specific host defense mechanism.	
10	2	2	**Immunology: -** Genetic in immunity.	
			Immunology: - Vaccination. Antigens.	
11	2	2	**Immunology: -** Antibodies	
			Immunology: - Cellular and Humoral immunity.	
12	2	2	**Immunology: -** Immune Reduction and their significance roles.	
			Immunology: - Immune Reduction and their significance roles.	
13	2	2	Allergy: - Allergy, Anaphylaxis.	
			Genetics: - Hypergia, DNA and RNA Structures	
14	2	2	**Genetics:** - Plasmids and Episome, Phenotype and Genotypic changes.	
			Genetics: - Phenotype and Genotype changes	
15	2	2	**Anti Microbial therapy:-** Laboratory usage of Antibiotics.	
			Anti Microbial therapy:- Antibiotic Susceptibility test.	
16	2	2	**Anti Microbial therapy (Pathogen infections of bodies):-** Determination of antibiotic measure in body fluid.	
			Anti Microbial therapy (Pathogen infections of bodies):- Central Nervous System infections. Lymph and blood infections, Gastro intestinal infections, Urinary tract infections, Skin and soft tissue infections, Respiratory infections.	

Nangarhar medical Faculty

Microbiology Department Curriculum for Medical Faculty

Subject : Microbiology				
Grade : 2 nd			Second Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	2	2	**Gram Positive Cocci: - Staphylococc:** Morphology, Culture, Growth. Characteristics, Antigenic structure, Toxins.	
			Gram Positive Cocci: - Staphylococc: Pathogenesis, Clinical Finding, Diagnostic Lab Test, Treatment Prevention and Control.	
2	2	2	**Gram Positive Cocci: - Streptococci:** Morphology, Culture, Growth. Characteristics, Antigenic structure, Toxins.	
			Gram Positive Cocci: - Streptococci: Pathogenesis, Clinical Finding, Diagnostic Lab test, Treatment, Epidemiology, Prevention and Control.	
3	2	2	**Pneumococci:-** Morphology, Culture, Growth, Characteristics, Antigenic structure, Toxins, Pathogenesis, Clinical Finding, Diagnostic Lab Test, Treatment, Epidemiology, Prevention and Control.	
			Neisseria:- (Neisseria Gonorrhea, Neisseria Meningitides) Morphology, Culture, Growth, Characteristic, Antigenic structure, Toxins, Pathogenesis, Clinical Finding, Diagnostic Lab Test, Treatment, Epidemiology, Prevention and Control.	
4	2	2	**Gram Negative Enteric bacilli:-** (Escherichia coli), Morphology, Culture, Growth, Characteristics, Antigenic structure, Toxins.	
			Gram Negative Enteric bacilli: - (Escherichia coli): Pathogenesis, Clinical Finding, Diagnostic Lab test, Treatment, Epidemiology, Prevention and control.	
5	2	2	**Gram Negative Enteric bacilli's:-** (Salmonella, Shigella), Morphology, Culture, Growth, Characteristics Antigenic structure, Toxins.	
			Gram Negative Enteric bacilli's:- (Salmonella, Shigella), Pathogenesis, Clinical Finding,	

			Diagnostic Lab Test, Treatment, Epidemiology, Prevention and Control.	
6	2	2	**Vibreos Compylo bacter:-** (V.Cholera, C.Jejuni): Morphology, Culture, Growth, Characteristics, Antigenic structure, Toxins, Pathogenesis.	
			Vibreos Compylo bacter:- (V.Cholera, C.Jejuni): Clinical Finding, Diagnostic Lab test, Treatment, Epidemiology, Prevention and control.	
7	2	2	**Helicobacter (H.Pylori) Bacillus (B.Anthraces):** Morphology, Culture, Growth, Characteristics, Antigenic Structure, Toxins. Pathogenesis.	
			Helicobacter (H.Pylori) Bacillus (B.Anthraces): Clinical finding, Diagnostic Lab test, Treatment, Epidemiology, Prevention and control.	
8	2	2	**Clostridium:-** (Cl Tetani, Cl Perfringens, Cl Gas gangrene):- Morphology, Culture, Growth Characteristics, Antigenic structure, Toxins.	
			Clostridium:- (Cl Tetani, Cl Perfringens, Cl Gas gangrene):- Pathogenesis, Clinical finding, Diagnostic Lab test, Treatment, Epidemiology, Prevention and Control.	
9	2	2	**Cornebacterium (C.Diphtheria) Hemophillus influenza) Bordetella (B.Pertussis) Brucella (Brucella):-** Morphology, Culture, Growth Characteristics, Antigenic structure, Toxins, Pathogenesis.	
			Cornebacterium (C.Diphtheria) Hemophillus influenza) Bordetella (B.Pertussis) Brucella (Brucella):- Clinical finding, Diagnostic Lab test, Treatment, Epidemiology, Prevention and control.	
10	2	2	**Yersinia (Yersinia Pestis), Francisella, Pasturella (Pasturella Sturella) Mycoplasma (Mycoplasma):-** Morphology, Culture, Growth, Characteristics, Antigenic structure, Toxins, Pathogenesis.	
			Yersinia (Yersinia Pestis), Francisella, Pasturella (Pasturella Sturella) Mycoplasma (Mycoplasma):- Clinical finding, Diagnostic Lab test, Treatment, Epidemiology, Prevention and Control.	
11	2	2	**Mycobacterium, Spirochetes, Rickettsial Disease: -** Morphology, Culture, Growth, Characteristics, Antigenic Structure, Toxins.	
			Mycobacterium, Spirochetes, Rickettsial	

			Disease: - Pathogenesis, Clinical finding, Diagnostic Lab test, Treatment, Epidemiology, Prevention and Control.	
12	2	2	**Virology: -** (Adenovirus, Para Influenza and Herpes Virus):- Morphology, Culture, Growth, Characteristics, Antigenic structure, Toxins, Pathogenesis.	
			Virology: - (Adenovirus, Para Influenza and Herpes Virus):- Clinical Finding, Diagnostic Lab test, Treatment, Epidemiology, Prevention and Control.	
13	2	2	**Virology: -** (Mumps, Measles, Smallpox and Rubella virus):- Morphology, Culture, Growth, Characteristics, Antigenic structure. Toxins.	
			Virology: - (Mumps, Measles, Smallpox and Rubella virus):- Pathogenesis, Clinical Finding, Diagnostic Lab test, Treatment, Epidemiology, Prevention and Control.	
14	2	2	**Virology: -** {Hepatitis, Polio myelitis, Rabies and Retro virus (AIDS)}:- Morphology, Culture, Growth, Characteristics, Antigenic structure. Toxins.	
			Virology: - {Hepatitis, Polio myelitis, Rabies and Retro virus (AIDS)}:- Pathogenesis, Clinical Finding, Diagnostic Lab test, Treatment, Epidemiology, Prevention and Control.	
15	2	2	**Mycology: -** (Surface mycosis, Skin mycosis):- Morphology, Culture, Growth, Characteristics, Antigenic structure. Toxins.	
			Mycology: - (Surface mycosis, Skin mycosis):- Pathogenesis, Clinical Finding, Diagnostic Lab test, Treatment, Epidemiology, Prevention and Control.	
16	2	2	**Mycology: -**Subcutaneous mycosis, Deep mycosis):- Morphology, Culture, Growth, Characteristics, Antigenic structure. Toxins.	
			Mycology: -Subcutaneous mycosis, Deep mycosis):- Pathogenesis, Clinical Finding, Diagnostic Lab test, Treatment, Epidemiology, Prevention and Control.	

Nangarhar medical Faculty

Islamic study Department Curriculum for Medical Faculty

Subject : Islamic study				
Grade : 2nd			First Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	0	Definition of Islamic Weltanschauung	
2	1	0	Unification in Islamic Weltanschauung توحید	
3	1	0	Unification in Islamic Weltanschauung	
4	1	0	Self recognize Unification in Islamic Weltanschauung	
5	1	0	Self Correction in Islamic Weltanschauung	
6	1	0	Important of belief in the society	
7	1	0	Means of Qaza & Qadar in Islamic Weltanschauung	
8	1	0	Means of Qaza & Qadar in Islamic Weltanschauung	
9	1	0	Factors of Moslem Decline in the world	
10	1	0	Internal Factors	
11	1	0	Internal Factors	
12	1	0	External Factors	
13	1	0	A view of Islamic Countries	
14	1	0	A view of Islamic Countries	
15	1	0	A view of Islamic Countries	
16	1	0	Final	

Nangarhar medical Faculty

Islamic study Department Curriculum for Medical Faculty

Subject : Islamic study				
Grade : 2nd			Second Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	0	Complete information about Islam.	
2	1	0	Introduction	
3	1	0	Religions & Politics	
4	1	0	Religious Law	
5	1	0	Politics Definition	
6	1	0	State Definition	
7	1	0	Political individual's Rights in Islam	
8	1	0	Political of individuals Rights	
9	1	0	Suffrage	
10	1	0	Definition of Leadership	
11	1	0	Council in Islam	
12	1	0	Definition of Democracy	
13	1	0	Islam & Democracy	
14	1	0	Islam & Democracy	
15	1	0	Responsibility of Islamic government.	
16	1	0	Responsibility of Islamic government.	

Nangarhar medical Faculty

Pathology Department Curriculum for Medical Faculty

Subject : General Pathology				
Grade : 2nd			**Second Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	3	2	Cell injury, causes of cell injury. Mechanism of Cell injury. Cellular adaptation to injury.	
2	3	2	Cell injury and adaptation. Reversible and irreversible cell injury. Programmed cell death (apoptosis), cellular aging.	
3	3	2	Acute inflammation, vascular changes. Cellular events, acute inflammation Acute inflammation defects in leukocytes function, chemical mediators.	
4	3	2	Inflammation induced tissue injury, outcome of acute inflammation. Chronic inflammation, glaucomatous inflammation. Morphologic pattern, Systemic effects.	
5	3	2	Cell Regeneration. Repair by connective tissue wound healing. Edema, congestion.	
6	3	2	Hemorrhage, normal homeostasis. Thrombosis. Embolism.	
7	3	2	Infarction. Shock Cell of the immune system.	
8	3	2	Histocompatability molecules. Cytokines Mechanism of immune-mediated injury.	
9	3	2	Auto immune disease. Immune deficiency disease. Amyliodosis.	
10	3	2	Definition, nomenclature of neoplasm.	

			Characteristics of benign and malignant neoplasm Epidemiology.	
11	3	2	Epidemiology. Etiology of cancer. Host Defense Against.	
12	3	2	Mutation, Mendelion disorder. Disease caused by mutation (receptor protein, structural protein, enzyme protein) Disease caused by mutation, protein cell growth, disorders with multifactorial.	
13	3	2	Cytogenic disorders. Cytogenic anomalies. Respiratory distress syndrome, Cystic fibrosis.	
14	3	2	Air Pollution Tobacco smoke. Injury by chemical agent.	
15	3	2	Injury by Physical agent. Nutritional disease. New and Emerging infection disease.	
16	3	2	Host Barrier to infection How infection agent cause disease. Special techniques for diagnosis, inflammatory response.	

Nangarhar medical Faculty

GRADE 3 RD

Nangarhar medical Faculty

Pathology Department Curriculum for Medical Faculty

Subject : Systemic pathology				
Grade : 3 rd			first Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	2	1	**Vascular wall cell:** Arterial disorder, Congenital Anomalies, Arteriosclerosis.	
			Hypertension: Aneurysm and Dissection	
2	2	1	**Vasculitis:** Vein and Lymphatic disorder, Vasculer Tumors.	
			Congestive Heart Disease: Ischemic Heart Disease, Angina Pectoris.	
3	2	1	**Myocardial Infarction,** Chronic Ischemic Heart Disease, Sudden Cardiac Death.	
			Hypertensive Heart Disease, Cor- Pulmonal, Valvuler Heart Disease, Rheumatic Fever.	
4	2	1	**Calcify Aortic Stenosis,** Mitral Valve Prolepses, Non Bacterial Thrombotic Endocarditis, Infective Endocarditis, Primary Myocardial disease, Congenital Heart disease, Left to Right shunt.	
			Right to left shunt, Obstructive lesion, Pericardial Disease, Cardiac Tumor.	
5	2	1	**Red cell disorder,** Iron deficiency Anemia, Anemia of Chronic disease, Hemorrhagic Anemia, Megaloblastic Anemia.	
			Aplastic Anemia, Myelophthestic Anemia, Hemolytic Anemia, Spherocytic Anemia, Sickle cell Anemia, Thalasemia.	
6	2	1	**G6PD,** DNH, Polycythemia, White cell Disorder, Leukopenia, Leukocytosis, Infectious Mononucleosis.	
			Leukemia, (AML, ALL), Monocytic Leukemia, CML, CLL, Leukomoid Reaction.	
7	2	1	**Bleeding Disorder,** DIC, Thrombocytopenia, ITP, Coagulation Disorder.	

			Spleen Disease, Lymph Node Disease, Thymus Gland Disease.	
8	2	1	**Malignant Lymphoma,** Non Hodgkin's Lymphoma, small Lymphocytic Lymphoma.	
			Follicular Lymphoma, Mantle cell Lymphoma, Lymphoblastic Lymphoma, Burkett's Lymphoma and Hodgkin's Disease.	
9	2	1	**Atelectasis,** Obstructive Lung Disease (Asthma, Emphysema)	
			Chronic Bronchitis, Bronchiectasis, Restrictive Lung Disease, Acute Respiratory Distress Syndrome.	
10	2	1	**Idiopathic Pulmonary Fibrosis,** Chronic Restrictive Lung Disease, Sarcoidosis, Vascular Lung Disease, Pulmonary Hypertension.	
			Pulmonary Infections, Community acquired acute Pneumonia.	
11	2	1	**Tuberculosis,** fungal Infection, Lung abscess.	
			Lung Tumors, Pleural lesions, Lesion of the upper respiratory tract.	
12	2	1	**Oral Cavity Disease,** Leukoplakia, Cancer of oral cavity, Salivary glands Disease, Esophagus Disorder.	
			Esophagitis, Esophagus Carcinoma, Stomach Disease, Gastritis, Peptic ulcer.	
13	2	1	**Tumor of Stomach,** Development anomalies of intestine, Megacolon, Vascular Disorder.	
			Diarrheal Disease, Malabsorption Syndrome,	
14	2	1	**Idiopathic inflammatory bowel disease,** Colonic Diverticulosis, Bowel Obstruction.	
			Tumor of the Small and Large Intestines, Acute Appendicitis.	
15	2	1	**Hepatic injury,** Jaundice, Hepatic failure, Cirrhosis	
			Inflammatory Disorders, Viral hepatitis, Liver abscess.	
16	2	1	**Inborn Error of Metabolism,** Hemochromatosis, Wilson Disease, Circulatory Disorders, Tumor of Liver.	
			Cholelithiasis, Cholecystitis, Tumors of Pancreas, Exocrine Pancreas Disease.	

Nangarhar medical Faculty

Pathology Department Curriculum for medical Faculty

Subject : Systemic pathology				
Grade : 3 rd			Second Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	2	2	**Glomeruler Disease:** Pathogenesis of Glomeruler Disease, Nephrotic syndrome, Minimal change Disease, Membranous GN, Focal Segmental Glomerulosclerosis, Membranoproliferative GN.	
			Nephritic Syndrome: Acute Proliferative GN, RPGN, IgA Nephropathy, Hereditary Nephritis, Chronic GN.	
2	2	2	**Diseases Affecting Tubules & Interstitium:** Tubulointestinal Nephritis, Acute Pyelonephritis, Chr Pyelonephritis & Reflux Nephropathy, Drug induced intestinal nephritis, Acute Tubular Necrosis.	
			Cystic Disease of the Kidney & Urinary outflow obstruction: Simple Cysts, Autosomal Dominant Polycystic Kidney Disease, Autosomal Recessive Polycystic Kidney Disease, Renal stones, Hydronephrosis.	
3	2	2	**Tumors:** Renal Cell carcinoma, Willms Tumor, Tumor of the Urinary Bladder & Collecting System.	
			Penis: Malformations, inflammatory Lesions, Neoplasm.	
4	2	2	**Scrotum, Testis & Epididymis:** Cryptochidism & Testicular Atrophy, inflammatory Lesions, Testicular Neoplasm.	
			Prostate: Prostatitis, Nodular Hyperplasia of Prostate, Carcinoma of the Prostate.	
5	2	2	**Sexually Transmitted Disease:** Syphilis, Gonorrhea.	
			The Valve & the Vagina Disease: Vulvitis, Non-neoplastic Epithelial Disorders, Tumors, Vaginitis, Vaginal Intraepithelial Neoplasia & Squamous cell	

			Carcinoma, Sarcoma Botryoisdes.	
6	2	2	**The Cervix Disease:** Cervicitis, Tumors of the Cervix. **The Body of Uterus:** Endometritis, Adenomyosis, Endometriosis, DUB & Endometrial Dysplasia, Tumors of the Endometrium & Myometrium.	
7	2	2	The Ovaries: Follicle & Luteal Cysts, Polycystic Ovaries, Tumors of the Ovary. **Disease of Pregnancy:** Hydatidiform Mole: Complete & partial, invasive Mole, Choriocarcinoma, Preclampsia, Eclapsia.	
8	2	2	**Fibrocystic Changes & inflammation of the Breast:** Tumors of the Breast, Fibro adenoma, Phyllodes Tumor, Carcinoma. **The Pituitary Gland:** Hyperpituitarism & Pituitary Adenomas, Hypopituitarism, Posterior Pituitary Syndrome.	
9	2	2	**The Thyroid Gland:** Hyperthyroidism, Hypothyroidism, Graves Disease, Diffuse Non-toxic Goiter & Multinoduler Goiter, Thyroiditis, Neoplasm. **The Parathyroid Gland:** Hyperparathyroidism, Hyperparathyroidism.	
10	2	2	**Pancreas:** Diabetes Mellitus, Pancreatic Endocrine Neoplasm. **The Adrenal Gland:** Hyperadrenalism, Adrenal insufficiency, Adrenocortical Neoplasm, Pheochromocytoma, Neuroblastoma.	
11	2	2	**Inflammatory Dermatoses:** Acute inflammatory Dermatoses. Chr Inflammatory Dermatosis. **Blistering (Bullous) Disease:** Pemphigus, Bullous Pemphigoid, Dermatitis Herpetiformis.	
12	2	2	**Tumors:** Benign & Pre-malignant Epithelial Lesions, Malignant Epidermal Tumors. **Tumors & Tumor Like Lesions of Melanocytes:** Melanoma.	
13	2	2	**Disease of the Bone:** Congenital & Hereditary Disease of the bone, Osteoporosis & Acquired Metabolic Disorders, Osteomylelitis, Paget Disease, Bone Tumors. **Disease of the Joints:** Osteoarthritis, Gout, Infectious Arthritis.	

14	2	2	**Disease of Skeletal Muscle:** Muscle Atrophy, Myasthenia Gravis, Muscular Dystrophies.	
			Soft tissue Tumors: Tumors of Adipose Tissue, Tumors and Tumor- like Lesions of Fibrous Tissue, Fibrohistocytic Tumors.	
15	2	2	**Congenital Malformation & Infectious Disease**	
			Edema, Herniation, Hydrocephalus & Vascular Disease.	
16	2	2	**Metabolic & Degenerative Disorders**	
			Neoplasm of the Central Nervous System.	

Nangarhar medical Faculty

Microbiology Department Curriculum for Medical Faculty

Subject : Parasitology & Immunology				
Grade : 3 rd			**First Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	1	1	**Classification of Parasite and Hosts:** Classification of Parasites and hosts, Type of immunity and Other Immunologic Reactions.	
2	1	1	**Nomenclature of Parasites and abstract study of Parasitology:** Nomenclature of Parasites and abstract study of Parasitology	
3	1	1	**Entamebea Histolotica:-** History, Geographical distribution, Morphology, Reproduction, Life cycle, Pathogenesis, Clinical Findings, Intestinal and Extra intestinal Ameobiasis, Lab Diagnosis, Differential Diagnosis, Treatment, Prevention.	
4	1	1	**Gardia Labmlia, Trichomonas Vaginalis:** History, Geographical distribution, Morphology, Pathogenesis and Clinical Finding, intestinal, Culture of Trichomonas, Lab Diagnosis, Treatment, Prevention.	
5	1	1	**Leishmaniasis:-** History, Morphology, Culture, Life Cycle, Pathogenesis and Clinical Findings, Lab Diagnosis, Treatment, Prevention.	
6	1	1	**Trypanosomiasis:** History, Morphology, Life Cycle, Pathogenesis and Clinical Findings, Lab Diagnosis, Treatment, Prevention.	

7	1	1	**Blantidium coli and Isospora: -** History, Morphology, Pathogenesis and Clinical Findings, Lab Diagnosis, Treatment, Prevention.	
8	1	1	**Malaria:-** History, Geographical distribution, Epidemiology, Life Cycle, Pathogenesis, Clinical Findings, Malaria in Pregnancy, Malaria in Children, Complication of Malaria, Lab Diagnosis, Treatment, Prevention.	
9	1	1	**Cryptosporidium, Toxoplasmosis Gandhi:-** History, Morphology, Pathogenesis and Clinical Findings, Lab Diagnosis, Treatment, Prevention.	
10	1	1	**Ascaris Lumbricularis: -** History, Morphology, Life Cycle, Clinical Findings, Lab Diagnosis, Treatment, Prevention.	
11	1	1	**Entrobius Vermicularis, Wuchereia Boncrofti: -** History, Morphology, Life Cycle, Clinical Finding, Lab Diagnosis, Treatment, Prevention.	
12	1	1	**Ankylostoma Doudenalis, Necator Americans:-** History, Morphology, Life Cycle, Clinical Findings, Lab Diagnosis, Treatment, Prevention.	
13	1	1	**Strongloidium Stercoralis: -** History, Morphology, Life Cycle, Clinical Findings, Lab Diagnosis, Treatment, Prevention.	
14	1	1	**Trichnella Spiralis, Trichuris Trichuria:-**History, Morphology, Life Cycle, Clinical Findings, Lab Diagnosis, Treatment, Prevention. **Tania Saginata, Tania Solium: -** History, Morphology, Life Cycle, Clinical Findings, Lab Diagnosis, Treatment, Prevention.	
15	1	1	**Hymenolipis Nana: -** History, Morphology, Life Cycle, Clinical Findings, Lab Diagnosis, Treatment, Prevention. **Echinococcus Granulosis: -** History, Morphology, Life Cycle, Clinical Findings, Lab Diagnosis, Treatment, Prevention. **Diphylobotherium Lateum:** - History, Morphology, Life Cycle, Clinical Findings, Lab Diagnosis, Treatment, Prevention.	
16	1	1	**Fasciola hepatica:** - History, Morphology, Life Cycle, Clinical Findings, Lab Diagnosis, Treatment, Prevention. **Paragonomiasis:** - History, Morphology, Life Cycle, Clinical Findings, Lab Diagnosis, Treatment, Prevention. **Schistosomiasis:** - History, Morphology, Life Cycle, Clinical Findings, Lab Diagnosis, Treatment, Prevention.	

Nangarhar medical Faculty

Internal Medicine Department for Medical Faculty

Subject : Internal Medicine				
Grade : 3 rd			First Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	2	2	**Semiology of Respiratory system: - Symptoms:-** **Cough:** Definition, Mechanism, Etiology, Types and Complication. **Sputum:** Definition, Amount, Character, **Hemoptysis:** Definition, Etiology, Types and Degree, Differential with Hematemesis.	
			Chest pain: due to respiratory disease, pain due to lung Paranchyme, Mediastenum, **Pleural pain:** Location, intensity, Radiation and duration. **Dyspnea:** Definition, Mechanism, Clinical Types and degree. **Wheezing:** Definition and Etiology. **Cyanosis:** Definition, clinical types. **Clubbing:** Definition, Degree and Etiology.	
2	2	2	**Physical Examination of Respiratory System:** **Inspection:** Topographic lines of the chest, Normal chest, abnormal chest, Types of Respiration. **Palpation**: Palpation of Trachea, Palpation of chest movement, palpation of apices, palpation of Vocal fremitus.	
			Percussion: Method of Percussion, Direct and indirect percussion, Method of Clavicle percussion, Explanation of resonance, hyper resonance, tympanic, tympanic and dullness. **Auscultation:** Normal respiratory sounds. Additional Respiratory sounds, Ronchi, Crackle and Pleural rub…	
3	2	2	**Physical signs of Consolidation:** Inspection, Percussion, Palpation and Auscultation. **Physical signs of Pneumothorax:** Inspection, Percussion, Palpation and Auscultation. **Physical signs of Acute Attack of Bronchial**	

			Asthma: Inspection, Percussion, Palpation and Auscultation. **Physical signs of Pleural effusion:** Inspection, Percussion, Palpation and Auscultation. **Physical signs of Atelectasis:** Inspection, Percussion, Palpation and Auscultation. **Physical signs of Emphysema:** Inspection, Percussion, Palpation and Auscultation. **Physical signs of Cavitation:** Inspection, Percussion, Palpation and Auscultation.	
			Sputum Examination: Sputum preparation, Direct Examination of sputum, Culture of sputum, Blood Examination in respiratory diseases, Pleural tap and interpretation of pleural fluid.	
4	2	2	**ECG** in respiratory disease, Chest X-Ray, Reading of normal chest X-Ray.**Bronchography, Bronchoscopy, Lung biopsy and Pleural biopsy, Lung Function Test.**	
			Semiology of Cardiovascular system:- **Symptoms:- Dyspnea:** Mechanism of Dyspnea in Cardiac disease. **Orthopnea:** Mechanism and Etiology. **Paroxysmal nocturnal dyspnea (PND):** Mechanism and Etiology. **Palpitation.** Edema in cardiac disease. Mechanism of Edema.	
5	2	2	**Chest pain:** in Angina Pectoris, Explanation of Character of pain in Angina pectoris, **Pain** in Myocardial infarction and Character of pain in myocardial infarction, Pain due to pericarditis, Pain due to Rupture of aortic aneurysm. Pain due to Pulmonary Embolism. **Hemoptysis** in cardiovascular disease**. Syncope:** Etiology. **Cyanosis** in cardiac disease, **Hoarseness**.	
			Physical Examination of Cardiovascular disease: Inspection, General Inspection, Position of the patient bed Presence of Cyanosis on the lips and nails, Clubbing of Fingers and Osler nodes, Inspection of the Neck veins, PMI, chest deformity.	
6	2	2	**Palpation:** Palpation of PMI, Thril and Heave, **Percussion:-** Relative dullness of the Heart and Absolute dullness of the Heart, Inspection (generalized inspection, inspection of neck vessels point of maximal impulse pericardial pulsation, chest malformation)	

			Auscultation: 1st, 2nd,3rd and 4th Heart sounds, Splitting of 1st and 2nd Heart sound, Gallop rhythm, Opening snap, Ejection click and pericardial rub, differential with pleural rub.	
7	2	2	Cardiac murmurs:- Mechanism of Cardiac murmur, Intensity, quality, timing, location and Radiation, functional murmurs, Systolic and Diastolic murmurs, Continuous murmur. **Examination of the Pulse:** Method of Examination in the Clinic, Rate, Rhythm of the Pulse, Volume. Corrigan's Pulse, Anacrotic Pulse, Dicortic Pulse, Alternance Pulse, Bisferance Pulse and Paradoxical Pulse. **Blood Pressure:** Method, Explanation of Krotkove sounds.	
8	2	2	**Anatomophysiology of conductive system of the heart:** ECG Leads, Normal ECG waves, interval and Segments. **Interpretation of Normal ECG:** Rate (Regular or Irregular), Rhythm (Sinus rhythm or Nodular rhythm), Axis, Sinus Bradycardia, sinus tachycardia, sinus arrhythmia, PAC and PVC.	
9	2	2	**Paroxysmal** supra ventricular tachycardia**,** Atrial Fibrillation, Atrial Flutter. **AV-Block** and Classification of AV-Block, Bundle Branch Block (Right BBB) and (Left BBB), Atrail Hypertrophy (Left-right).	
10	2	2	**Ventricular Hypertrophy** (Left-right),Ischemic and Myocardial infarction. **Effect of Drug in ECG:** Digitals Effect, Quindin effect, Hyperkalemia, Hypokalemia, Hypocalcaemia, ECG change of the pulmonary infarction.	
11	2	2	**Semiology of Gastrointestinal system:-** **Symptoms:-** Definition and Etiology. **Dysphagia:** Definition and Etiology. **Odynophagia:** Definition and Etiology. **Aphagia:** Definition and Etiology. **Indigestion:** Definition and Etiology. **Abdominal pain:** Definition and Etiology. **Aerophagia:** Definition and Etiology. **Definition and Etiology** of Flatulence (Gaseousness), Heart burn (Pyrosis), Anorexia, Nausea, Vomiting and Regurgitation, Weight gain, weight loss.	

			Constipation: Etiology and definition. **Diarrhea:** Etiology and definition. **Hematemesis and Melana:** Etiology and definition. **Hematochoezia:** Etiology and definition. **Halitosis:** Etiology and definition.	
12	2	2	**Physical Examination of Gastrointestinal system:-** **Inspection** of teeth gum and oral cavity, Inspection of abdomen. **Auscultation: -** Peristalsis and Bruit.	
			Palpation: - Palpation Method of Abdomen, Abdominal masses location, Consistency, movement, size and shape of mass. Palpation of liver, Spleen and Gall bladder, Palpation method of Kidney, Urinary bladder and Aorta. **Percussion of Abdomen:** shifting dullness, Fluid wave. **Complaint of Patient with liver and billiary disorders (Jaundice).**	
13	2	2	**Semiology of Endocrine System:** Delayed Growth, Excessive growth, Obesity, Wasting and Weakness, Skin Pigmentation, Hirsutism: Definition and Etiology, change in appetite, Polyuria, polydepsia: Definition and Etiology, Gynecomastia, Precocious Puberty, Sexual Infantilism & Delayed puberty, Lack of potency, Cryptotorchism, Bone & joints pain and Pathologic fractures, Tetany, Mental changes.	
			Symptom & Sign of Common Endocrine disease: Addison's, Cushing, Thyrotoxicosis, Myxoedema and Acromegaly.	
14	2	2	**Semiology of Blood disorders:-** Fever and weight loss, weakness, Specific symptom in nervous system, eyes, ears, Mouth, CCVS, Gastrointestinal system, Genitourinary system, Extremities, skin physical examination, eyes oral cavity, lymph nodes, chest splenomegalia and its etiology, hepatomegalia and etiology, nervous system, Routine Blood Examination, Hb, HCT and WBC.	
			Semiology of Genitourinary:- Pain (Urethral, bladder prostate, testicular, renal), Character and Etiology of pain, Definition and Etiology of: Dysuria, Hematuria, Pyurai, Nocturai, Frequency, Ischuria, Lithurai, Pneumaturia, Oligurai, Anuria, Enuresis, Urinary incontenance, Cloudy urine and	

			Polyuria.	
15	2	2	**Laboratory Examination of Urine:-** sediment of urine, cast and its types, protein urea, Kidney function tests and biopsy of kidney. **Semiology of Bone and joints:-** Definition and Etiology of Joints pain and Joints stiffness, joint locking. **Examination Method of Joints.**	
16	2	2	**History of the patient (Communication skills) & Physical Examination:-** Identification, Chief complains, Present illness, Post history, Family history, Social history, Personal history, Occupational history, Review of systems. **Physical Examination:-** Vital signs: - BP, PR, HR, RR and Body Temperature. **Inspection: -** General inspection:- Hair, Head, Eye, Nose Sinuses, Oral cavity, Neck, Breast, Extremities. **Inspection, Palpation, Percussion and Auscultation** of Respiratory System, Cardiovascular System, Gastrointestinal System and Genitourinary System. Reflexes.	

Nangarhar Medical Faculty

Pharmacology Department Curriculum for Medical Faculty				
Subject: Pharmacology				
Grade: 3rd			**First Semester**	
Week	**Hour**		**Topic**	**Note**
	Theory	**Practical**		
1	2	1	**Introduction of Pharmacology:** Definition of pharmacology, Pharmacokinetic, Pharmacodynamic, Toxicologoy, Drug (Medicine). **Pharmacokinetic** Route of drug administration (Oral, Sublingual, Rectal, Parenteral, Topical, Other).	
2	2	1	**Introduction of Pharmacology:** **Drug Absorption** Simple diffusion,	

			Filtration, Active Transport, Pinocytosis **Factors influencing Drug Absorption** Protein binding & Clinical importance of Protein Binding	
3	2	1	**Introduction of Pharmacology: Drugs Biotransformation** (Metabolism) **Elimination of Drugs from the Body**, Dose & Factors Influencing Drug Dosage.	
4	2	1	**Introduction of CNS Pharmacology:** Pharmacodynamic (Drugs made of action, Drugs response, Therapeutic index). **Factors Influencing Pharmacologic Effects,** Drugs Adverse reaction	
5	2	1	**CNS Pharmacology Sedative-Hypnotics:** Introduction, Classification, Benzodiazepin Derivatives (Diazepam, Chlordiazepoxide, Oxazepam, Barbiturates, Non-Barbiturates, Glutethimide, Meprobamate, Other Sedative-Hypnotic, Hydroxyzine), Sedative Hypnotic Drugs Addiction. **Content for Presentation Included:** Pharmacokinetics, Pharmacologic Effects, Clinical usage, Side effects, Contraindications, Cautions, Dose, Drug Interaction, Strength & Dosage Form	
6	2	1	**CNS Pharmacology Narcotic Analgesics:** Introduction, Classification	

			Pharmacokinetics, Mode of action, Pharmacologic Effects	
7	2	1	**CNS Pharmacology Narcotic Analgesics :**(Morphine, Pethidine, Fentanyl, Pentazicine, Heroin, Codeine, Dextropropoxyphene, Opiate antagonist (Naloxone). **Content for Presentation Included:** Clinical usage, Side Effects, Contraindications, Cautions, Dose, Drug Interaction, Strength & Dosage Form. Opiate toxicity & Treatment	
8	2	1	**CNS Pharmacology Drugs Used in Psychological Disorders:** I-**Neuroleptic Drugs:** Classification, mode of action, Pharmacologic Effects. (Chloropromazine, Fluphenazine, Haloperidol, Loxapine). **Content For Presentation Included:** Pharmacokinetics, Mode of action, Clinical usage, Side Effects, Contraindications, Cautions, Dose, Drug Interaction, Strength & Dosage Form 	
9	2	1	**CNS Pharmacology Drugs Used in Psychological Disorders: II-Antidepressante:** Classification, Pharmacokinetics, (Amitriptylline, Imiprmine, Trimipramine, Phenelzine, Isocarboxazide) **III-Antimania (**Lithium salt**)**	

			Content For Presentation Included: Pharmacokinetics, Mode of action, Clinical usage, Side Effects, Contraindications, Cautions, Dose, Drug Interaction, Strength & Dosage Form	
10	2	1	**Introduction of Autonomic System Pharmacology:** Introduction, Anatomophysiology of Autonomic system. **Receptors & Neurotransmitters of Autonomic System**	
11	2	1	**Autonomic System Pharmacology Cholinergic Drugs:** Introduction, Classification, Pharmacologic Effects Acetyl Choline, Bethanechol, Carbachol, Pilocarpine, Physiostigmine, Neostigmine, Pyridostigmine, Edrophonuim) **Content For Presentation Included:** Pharmacokinetics, Mode of action, Clinical usage, Side Effects, Contraindications, Cautions, Dose, Drug Interaction, Strength & Dosage Form. Ant cholinesterase Toxicity and Treatment	
12	2	1	**Autonomic System Pharmacology Anti Cholinergic Drugs Included Muscle Relaxant):** Introduction, Classification, Pharmacologic Effects (Atropine, Hyoscine, Trimethaphan, Nicotine). **Muscle Relaxant:** Classification, Pharmacologic Effects (Tubocurarine, Pancurarine, Vecurarine, Gallamine, Susam ethoniume, Baclofen, Datroline). **Content For Presentation Included:** Pharmacokinetics, Mode of action, Clinical usage, Side Effects, Contraindications, Cautions,	

			Dose, Drug Interaction, Strength & Dosage Form.	
13	2	1	**Autonomic System Pharmacology Adrenegic Drugs:** Introduction, Classification, Pharmacologic Effects (Adrenaline, nor-adrenaline, Isoprenaline, Dopamine, Phenylephrine, Salbutamol, Ritodrine, Amphetamine, Tyramine, Ephedrine Metaraminol, Ergometrine). **Content For Presentation Included:** Pharmacokinetics, Mode of action, Clinical usage, Side Effects, Contraindications, Cautions, Dose, Drug Interaction, Strength & Dosage Form.	
14	2	1	**Autonomic System Pharmacology Anti Adrenegic Drugs:** Introducion, Classification (Clonidine, Methyldopa, Trimethaphan, Reserpine, Guanithidine, Phenoxybenzamine, Phentolamine, Prazocine, Propranolol, Atenolol, Timolol, Metoprolol, Pindolol). **Content For Presentation Included:** Pharmacokinetics, Mode of action, Clinical usage, Side Effects, Contraindications, Cautions, Dose, Drug Interaction, Strength & Dosage Form.	
15	2	1	**Drugs used in Obstetrics: Oxytocic drugs:** (Ergot derivatives (Ergometrine), Oxytocin, Tocolytics, Salbutamol, Ritodrine).	

			Non-Steroidal Anti-Inflammatory Drugs (NSAIDs): Introduction, Classification, mode of action	
16	2	1	**Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)/ Drugs used in Gout and Migraine:** (Aspirin, Ibuprofen, Indomethacin, Naproxen, Diclofenac, Piroxicam, Phenylbutazone). Analgesic and Antipyretic Drugs: (Paracetamol, other anti-inflammatory drugs, Penicillamin, Gold Salt) Drugs used in Gout: (Colchicine, Allopurinol) Drugs used in Migraine: (Ergotamine) **Content For Presentation Included:** Pharmacokinetics, Mode of action, Clinical usage, Side Effects, Contraindications, Cautions, Dose, Drug Interaction, Strength & Dosage Form.	

Nangarhar Medical Faculty

Pharmacology Department Curriculum for Medical Faculty				
Subject: Pharmacology				
Grade: 3rd			**Second Semester**	
Week	**Hour**		**Topic**	**Note**
	Theory	**Practical**		
1	2	2	**Histamine & Anti Histaminic Drugs:** Introduction, Mode of Action of Histamine, Antihistaminic: Classification, Pharmacokinetics, Pharmacologic Effects {Chlorphenamine (Chlorphenamine), Diphenhydramine, Prometanzine, Cyproheptadine, Dimehydranate, Cinnarazine, Sodium Cromoglycate, Cetrazine, Loratadine. **Content for Presentation Included**: Pharmacokinetics, Mode of action, Clinical usage, Side Effects, Contraindications, Cautions, Dosage, Drug Interaction, Strength & Dosage Form	
2	2	2	**Gastro-Intestinal System Pharmacology**: Antiemetic (Chloropromazine, Trifuperazine, Domperidone, Metoclopramide), Drugs used in Peptic Disease: H2 Receptor Blockers (Cimetidine, Ranitidine, Famotidine, Nizatidine), Proton Pump Inhibitors (Omeprazole), Antimuscainics (Pirenzpine), Prostaglandin Analogue (Misoprostol).	

			Content for Presentation Included: Pharmacokinetics, Mode of action, Clinical usage, Side Effects, Contraindications, Cautions, Dosage, Drug Interaction, Strength & Dosage Form	
3	2	2	**Gastro-Intestinal System Pharmacology**: Antiacids (Alminum Hydroxide, Magnesium Hydoxide, Sodium Bicarbonate, Calcium Bicarbonate), Stomach Mucosa Membrane Protect ante (Sucralfate), H. Pylori Treatment Laxatives (Classification, Ispaghula Husk, Bisacodyl Senna, Liquid Paraffin, Magnesium Salt), Drugs Used in Diarrhea (Symptomatic), Oral Rehydration Salt (ORS), Diphenoxylate, Loperamide. **Content for Presentation Included:** Pharmacokinetics, Mode of action, Clinical usage, Side Effects, Contraindications, Cautions, Dosage, Drug Interaction, Strength & Dosage Form	
4	2	2	**Respiratory System Pharmacology:** Bronchodilators (Adrenergic, Xanthine Derivatives, Anticholinergics, Cromolyn Sodium, Steroids). Drugs Used in Cough Codeine, Dextromethorphan, Pholocodein, Acetylcestein, Carbocysstein, Expectorants). **Content for Presentation Included:** Pharmacokinetics, Mode of action, Clinical usage, Side Effects, Contraindications, Cautions, Dosage, Drug Interaction, Strength & Dosage Form	
5	2	2	**Diuretics:** Introduction, Classification, Definition (Acetazolamide, Furosemide,	

			Ethacrynic Acid, Chorothiazide, Hydrochlorothiazide, Chlorthalidone, Spironolactone, Triamterene, Mannitol). **Content for Presentation Included:** Pharmacokinetics, Mode of action, Clinical usage, Side Effects, Contraindications, Cautions, Dosage, Drug Interaction, Strength & Dosage Form	
6	2	2	**Cardiovascular System Pharmacology:** Cardiotonics: Introduction (digoxine, Digitoxine), Anti Arrhythmic Drugs: Intoduction, Classification (Quinidine, Procaiamide, Lidocaine, Phenytoin, Propranolo, Metoprolol, Atenolol, Esmolol, Bretylium, Amiodarone, Verapamil, Diltiazem, Nifidepine, Digoxine). **Content for Presentation Included:** Pharmacokinetics, Mode of action, Clinical usage, Side Effects, Contraindications, Cautions, Dosage, Drug Interaction, Strength & Dosage Form	
7	2	2	**Cardiovascular System Pharmacology:** Drugs Used in Angina Pectoris: Introduction, Classification, (Glyceryl Tinitrate, Isosorbid Dinitrate, Nifidepin, Diltiazem, Propranolo, Atenolol), Drugs Used in Hypertension: Introduction, Classification (Clonidine, Methyldopa, Trimethaphan, Reserpine, Guanithidine, Prazsine, Propranolol, Atenolol Nifdepine, Niocaripine, Enalapril, Captopril, Hydralazine, Sodium, Nitroprusside).	

			Content for Presentation Included: Pharmacokinetics, Mode of action, Clinical usage, Side Effects, Contraindications, Cautions, Dosage, Drug Interaction, Strength & Dosage Form	
8	2	2	**Blood Pharmacology (Drugs used in Blood Disorder):** Drugs used in Anemia Ferrous Sulphate, Iron Dextran, Iron Toxicity, Hydroxycobalamin, Folic acid). **Content for Presentation Included:** Pharmacokinetics, Mode of action, Clinical usage, Side Effects, Contraindications, Cautions, Dosage, Drug Interaction, Strength & Dosage Form	
9	2	2	**Blood Pharmacology (Drugs Used in Blood Disorder):** Drugs used in coagulation Disorder: Introduction, Classification (Heparin, Warfarin, Aspirin, Streptokinase, Protamin sulfate, Phytomenadion), Drugs used in Hyperlipidemia (Nicotinic Acid, Clofibrate) **Content for Presentation Included:** Pharmacokinetics, Mode of action, Clinical usage, Side Effects, Contraindications, Cautions, Dosage, Drug Interaction, Strength & Dosage Form	
10	2	2	**Blood Products and Plasma Substitutes Pharmacology:** Introduction (Dextran 70, Polygeline, Albumine-Human, ORS, Glucose, Sodium Chloride, Ringer Lactate, sodium Bicarbonate)	

			Content for Presentation Included: Pharmacokinetics, Mode of action, Clinical usage, Side Effects, Contraindications, Cautions, Dosage, Drug Interaction, Strength & Dosage Form	
11	2	2	**Hormones Pharmacology:** Introduction, Classification (ACTH, Oxytocine, Vasoprssine, Levothyroxine, Prophylithiouracil, Potassium lodide, Insulin), Oral Ant diabetic Drugs (Tolbutamide, Chlorpropamide, Glibenclamide, Metformin) **Content for Presentation Included:** Pharmacokinetics, Mode of action, Clinical usage, Side Effects, Contraindications, Cautions, Dosage, Drug Interaction, Strength & Dosage Form	
12	2	2	**Hormones Pharmacology Introduction:** Steroids: Introduction (Estrogens, Progesterone, Corticosteroids, Ant estrogens, Endrogens) **Content for Presentation Included:** Pharmacokinetics, Mode of action, Clinical usage, Side Effects, Contraindications, Cautions, Dosage, Drug Interaction, Strength & Dosage Form	
13	2	2	**Introduction of Anti-infective Drugs:** Introduction, Principles of Antimicrobial therapy: Classification,	

			Antibiotic Combinations, Microbial Resistance	
14	2	2	**Anti-infective Sulfamides**: Mode of action on sulfonamides resistance, Against sulfonamides (Co-trimexazol, Sulphasalazine, Sulfadiazine) **Content for Presentation Included:** Pharmacokinetics, Mode of action, Clinical usage, Side Effects, Contraindications, Cautions, Dosage, Drug Interaction, Strength & Dosage Form	
15	2	2	**Anti-infective Beta-Lactam Antibiotics:** Penicillin's: Mode of action Benzyl Penicillin, Procain Penicillin, Benzathine Penicillin, Phenoxy Methyl Benzyl Penicilin), Penicillins resistant, Against Penicillinase (Beta-Lactamase). **Content for Presentation Included:** Pharmacokinetics, Mode of action, Clinical usage, Side Effects, Contraindications, Cautions, Dosage, Drug Interaction, Strength & Dosage Form	
16	2	2	**Anti-infective Beta- lactam Antibiotics**, Others Broad Spectrum Antibiotics: (Amoxicillin, Amoxicillin + Clavualanic Acid, Ampicillin), Antipseudomonal Antibiotics (Ticarcillin, Piperacillin).	

			Content for Presentation Included: Pharmacokinetics, Mode of action, Clinical usage, Side Effects, Contraindications, Cautions, Dosage, Drug Interaction, Strength & Dosage Form	

Nangarhar medical Faculty

Internal Medicine Department for Medical Faculty

Subject : Internal Medicine				
Grade : 3 rd			**Second Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	2	2	**Disease of the Respiratory System** **Acute Tracheobronchitis:** Definition, etiology, pathology, Symptom and Signs, Treatment. **Chronic Obstructive Pulmonary Disease COPD** **Chronic Bronchitis:** Definition, pathology, predisposing factors, clinical manifestations, Laboratory Investigation, X-ray, diagnosis, DDx, complication, treatment prognosis.	
2	2	2	**Pulmonary Emphysema:-** Definition, pathology, Predisposing causes, clinical findings, Lab exam, X-ray, diagnosis, DDx, complication, treatment, prognosis. **Bronchial Asthma:** Definition, etiology, pathology, Clinical Finding, Lab exam, chest x-ray, Diagnnosis and deferential diagnosis, complication , course and prognosis, treatment, Status Asthmaticus:- Definition and treatment.	
3	2	2	**Community Acquired Pneumonia:-** **Pneumococcal Pneumonia:-** Definition, Incidence, Pathology, Clinical manifestation, Lab exam, complication, Diagnosis & deferential diagnosis,	

			treatment, prognosis and prophylaxis.	
			Hospital Acquired Pneumonia: - (epidemiomology & Incidence, pathology, symptoms & sings, diagnosis, treatment).	
4	2	2	**Bronchiectasis:-** Definition, Pathogenesis, pathological changes, Clinical Findings, Lab exam, chest X-ray, diagnosis & deferential diagnosis, complication, treatment and prognosis.	
			Lung Abscess:- Etiology, Pathogenesis, pathological changes, clinical manifestations, Physical signs, diagnosis & DDX, prophylaxis, Treatment.	
5	2	2	**Athelectasis:-** Definition, Etiology, Pathogenesis, pathological changes, Clinical findings, diagnosis and DDX, prophylaxis, Treatment.	
			Pleural Disease:- Fibrinous Pleurisy:- Etiology, clinical picture and Treatment. Pleural effusion:- Etiology, Pathogenesis, clinical manifestation. Lab Exam, Diagnosis and Treatment.	
6	2	2	**Emyema:-** Definition, Etiology, clinical findings, Diagnosis, Differential diagnosis, treatment and Prognosis.	
			Bronchogenic Carcinoma: pathological changes, clinical manifestation, Lab exam, radiographic changes, complication, Diagnosis & DDX, treatment and prognosis.	
7	2	2	**Acute Respiratory Failure:-** Etiology, Clinical finding, Lab exam, Diagnosis and treatment.	
			Pulmonary Emboli and Infarction:- Definition, Etiology, Clinical findings, Lab exam, Radiographic changes, Diagnosis, Deferential diagnosis and Treatment.	
8	2	2	**Occupational exposure and Pulmonary disease:-** Asbestosis, Silicosis, Coat workers pneumoconiosis, Beryllosis:- Definition, Clinical finding, Complications, Treatment and prognosis.	
			Idiopathic Pulmonary Fibrosis: - Definition, Etiology, Clinical finding, Diagnosis and Treatment.	
9	2	2	**Pneumothorax: -** Definition, Etiology, Clinical finding, Diagnosis and Treatment.	
			Acute Respiratory Distress Syndrome:- Definition, Etiology, Clinical finding, Diagnosis and Treatment.	
10	2	2	**Acute Rheumatic Fever:-** Definition, pathogenesis, Etiology and Epidemiology, Pathological changes,	

			clinical manifestations (Minor and Major Criteria) **Diagnosis of Acute Rheumatic Fever &** DDX, Curative treatment, prophylactic treatment and prognosis.	
11	2	2	**Mitral Stenosis:-** Definition, Etiology, pathological changes, clinical manifestation, ECG, chest X-ray, Echocardiography. **Homodynamic changes of Mitral stenosis,** Diagnosis, DDX, complications, Medical treatment, Surgical treatment and Prognosis.	
12	2	2	**Mitral Incompetence:-** Definition, Etiology, Abnormal physiology, Clinical manifestation, ECG, chest X-ray, Echocardiogram, heart catheterization. **Diagnosis of Mitral Insufficiency,** DDx, Complication, Curative treatment and Prophylactic treatment. **Combined Mitral Stenosis and Regurgitation (MD):-** Clinical finding, Diagnosis and Differential diagnosis.	
13	2	2	**Aortic Regurgitation:-** Definition, Etiology, pathological changes, Clinical manifestation, ECG, Echocardiography, Radiography, Cardiac catheterization. **Diagnosis of Aortic Insufficiency:** Differential diagnosis, Complication, Treatment and Prognosis.	
14	2	2	**Aortic Stenosis:-** Etiology, Pathophysiology, Clinical Manifestation, Chest X-ray, ECG, Echocardiography, Cardiac catheterization, Diagnosis & DDx, Complications, Treatment and Prognosis. **Tricuspid Insufficiency:-** Etiology, Pathological changes, Clinical findings, Radiography, ECG, Diagnosis and Treatment.	
15	2	2	**Tricuspid Stenosis:-** Etiology, Pahtophysiology, clinical manifestation, ECG, Radiography, Diagnosis and Treatment. **Pulmonary Valve Disease (Pulmonary Stenosis & Insufficiency):-** Etiology, Pathological changes, Diagnosis, DDx, Treatment. **Combination of Valvular Disease (Mitral Insufficiency and Aortic Insufficiency):-** Etiology, Pathology, Clinical findings, Homodynamic changes, Treatment.	
16	2	2	**Infective Endocarditis:- Sub Acute Infective Endocaditis (SLE):-**	

			Definition, Etiology, predisposing factors, pathology, clinical manifestations, Lab exam, Blood culture and Echocardiography.	
			Diagnosis of SLE, Differential diagnosis, Prophylactic treatment, Curative treatment, Prognosis.	

Nangarhar medical Faculty

Surgery Department Curriculum for Medical Faculty

Subject : Surgery				
Grade : 3 rd			**First Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	2	2	**Principle to complete the file of surgical patient:-** Taking History of the patient Physical exam of the patient provisional diagnosis, special exam, clinical diagnosis treatment, prognosis, follow up termination.	
			Principle to complete the file of surgical patient:- Taking History of the patient Physical exam of the patient provisional diagnosis, special exam, clinical diagnosis treatment, prognosis, follow up termination.	
2	2	2	**Aseptic Techniques:-** Antisepsis, definition, chemical antiseptics, Biological antiseptic, Antibiotics.	
			Aseptic Techniques: Asepsis, sterilization Techniques and Methods.	
3	2	2	**Aseptic Techniques:-** Scrubbing up, growing, gloving, preparation of surgical area.	
			Aseptic Techniques: - operative theater, infection control in surgical ward in the hospital.	
4	2	2	**Pre & Post operative Care:-** Definition and goals, preoperative care, preoperative evaluation, preoperative care, preoperative evaluation, preoperative preparation.	
			Pre& post operative care:-Consultation,	

			preoperative note, preparations, awareness of patients, operation consent, preoperative order.	
5	2	2	**Pre& post operative care:-** Postoperative fluid & electrolyte management, gastro intestinal care, postoperative pain & treatment of pain.	
			Pre & post operative care: - Postoperative fluid & electrolyte management, gastro intestinal care, postoperative pain & treatment of pain.	
6	2	2	**Dressing & Bandages:-** Dressing, goals, forms, changing the dressing, material to fix the dressing, bandages, rules, fixing the end of bandage.	
			Dressing & Bandages: Forms of bandages, method to apply the bandage in different site.	
7	2	2	**Bleeding & Transfusion:-** Definition, classification, clinic, body reaction to bleeding, treatment of bleeding, methods of temporary, homeostasis, elevation, bandage application, direct pressure, bent the joint.	
			Bleeding & Transfusion:- Definition, classification, clinic, body reaction to bleeding, treatment of bleeding, methods of temporary, homeostasis, elevation, bandage application, direct pressure, bent the joint.	
8	2	2	**Bleeding & Transfusion:-** Tourniquet application, method, indications, inconvenient, mistake in proper bandage, application, clamping the bleeding vessels, permanent hemostase, methods mechanical, thermal, chemical, biological.	
			Bleeding & Transfusion:- Tourniquet application, method, indications, inconvenient, mistake in proper bandage, application, clamping the bleeding vessels, permanent hemostase, methods mechanical, thermal, chemical, biological.	
9	2	2	**Bleeding & Transfusion: -** Transfusion: definition, blood group compatibility transfusion root, indication & contraindication.	
			Bleeding & Transfusion: - Transfusion: definition, blood group compatibility transfusion root, indication & contraindication.	
10	2	2	**Bleeding & Transfusion: -** Deferent forms of transfusion, Deferent form of transfusion.	
			Bleeding & Transfusion: - Deferent forms of transfusion, Deferent form of transfusion.	
11	2	2	**Shock: -** Definition, Etiology, classification, hypovalemic shock, path physiology, immediate &	

			continue, compensatory reaction.	
			Shock: - Definition, Etiology, classification, hypovalemic shock, path physiology, immediate & continue, compensatory reaction.	
12	2	2	**Shock: -** Septic shock: path physiology diagnosis, treatment, neurogenic shock, pathophysiology, diagnosis, treatment, Cardiac compressive shock: pathophyiology, diagnosis, treatment cardiac obstructive shock, vasovagal shock, psychogenic shock, burn shock, anaphylactic shock.	
			Shock: - Septic shock: path physiology diagnosis, treatment, neurogenic shock, pathophysiology, diagnosis, treatment, Cardiac compressive shock: pathophyiology, diagnosis, treatment cardiac obstructive shock, vasovagal shock, psychogenic shock, burn shock, anaphylactic shock.	
13	2	2	**Trauma: -** Definition, epidemiology, prophylaxis, mechanism & intensity of trauma death due to trauma management before reaching to the hospital triage.	
			Trauma: - Definition, epidemiology, prophylaxis, mechanism & intensity of trauma death due to trauma management before reaching to the hospital triage.	
14	2	2	**Trauma: -** Evaluation, traumatic patients care in the hospital, Primary survey: ABCDE, emergency thoracotomy, trauma severity score, resuscitation phase, secondary survey & treatment priority, definitive care.	
			Trauma: - Evaluation, traumatic patients care in the hospital, Primary survey: ABCDE, emergency thoracotomy, trauma severity score, resuscitation phase, secondary survey & treatment priority, definitive care.	
15	2	2	**Trauma: -** Abdominal trauma, clinic, principles in diagnosis, radiologic finding, Para syntheses, peritoneal lavage.	
			Trauma: - Abdominal trauma, clinic, principles in diagnosis, radiologic finding, Para syntheses, peritoneal lavage.	
16	2	2	**Trauma:**-Other special examination, peritoneal lavage, penetrating trauma of the abdomen, Gunshot wounds, treatment of abdominal wall trauma, trauma of the liver, biliary tract, spleen, pancreas & GI tract trauma.	

			Trauma:-Other special examination, peritoneal lavage, penetrating trauma of the abdomen, Gunshot wounds, treatment of abdominal wall trauma, trauma of the liver, biliary tract, spleen, pancreas & GI tract trauma.	

Nangarhar medical Faculty

Surgery Department Curriculum for Medical Faculty

Subject : Surgery				
Grade : 3 rd			**Second Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	2	2	**Trauma of uterus:-** urethra, urinary bladder, kidney.	
			Chest trauma: - form of chest trauma, chest wall, vertebra, pleura, methods of chest tube application.	
2	2	2	**Trauma: -** Trauma of trachea, branches, lung, hearth, pericardia, esophagus.	
			Trauma: - ductus thoracicus, diaphragm, head trauma, trauma of scalp, skull.	
3	2	2	**Trauma: -** Head trauma, forms of head trauma.	
			Trauma: - care of head trauma patients, reamination, evaluation, diagnosis study, treatment.	
4	2	2	**wounds:-** Definition, pathophysiology, clinic, classification	
			Wounds:-Acute wounds, open, close, complex.	
5	2	2	**Wounds:-** War wound: entertains & exit whole mechanism of missile wound, pathophysiology and treatment.	
			Wounds: - D2PC, blast injury: mechanism, treatment special tissue injuries.	
6	2	2	**Wounds:-** Chronic wounds, ulcer, bed sore.	
			Wounds: wound healing: elements of healing, phase of healing, effective factors.	
7	2	2	**Burn: -** Definition, etiology, determination of severity, depth & site of burn, inhalation injuries, co morbid factors, categorization.	

			Burn:- Pathophysiology of thermal burn, metabolic reaction, clinic, treatment, definitive treatment, fluid management.	
8	2	2	**Burn:-** Respiratory care, nutrition & metabolic needs, support of GI system, immunologic consideration, wound care, keeping normal function of limb, complications.	
			Frost bite:- Definition, etiology, pathophysiology, clinic treatment.	
9	2	2	**Electric burn: -** Electric injury, treatment.	
			Chemical burn: - Generality, phosphorus, Radiation burn: Generality, immediate action, on normal tissue, systemic reaction, prevention, treatment, late reaction to radiation.	
10	2	2	**Fractures:** - Definition, classification, mechanism of fracture.	
			Fractures: - Pathology, callus formation, clinic, X-ray, clinic of fracture, healing, delayed union, causes of delayed union, complication.	
11	2	2	**Dislocation:** - Etiology, pathology, clinic forms, Diagnosis, treatment.	
			Surgical infection: - Definition, pathogenesis, Diffusion of surgical infection, necrotizing facetious, abscess, Phlegmon, lymphatic, diffusion, clinic, diagnosis, Principle for treatment, sepsis pathophysiology, clinic, treatment.	
12	2	2	**Surgical infection: -** Form of surgical infection, cellulites, clinic, treatment, lymphangitis, erysipelas, erysipeloid, abscess, hydraadinitis, carbuncle, furuncle.	
			Surgical infection: - Phlegmon, anthrax, actinomycosis, clostridial infection, tetanus, clinic, differential diagnosis, treatment.	
13	2	2	**Surgical infection:** - Other clostridial infections, postoperative & iatrogenic infections: clinic, prevention, treatment.	
			Surgical infection: - Hand infections, periangual infections, felon, subcutaneous infections & abscess, infection of the web space, deep palmer abscess, tendon sheath infection, Haydatid disease, liver hydatid disease, lung hydatid disease, and amibiasis.	
14	2	2	**Tumors: -** Etiology, definition, malignant tumor, Benign neoplasia, Papiloma, Fibroma, Lipoma.	
			Tumors: - Neuroma, Neurofibroma, Heamangioma, Heamartoma, Malignant tumor.	

15	2	2	**Tumors: -** Glandular carcinoma, Method of spreads, Staging, Grading sarcoma, Lymphoma, Synovioma, Malignant melanoma, Malignant degeneration.	
			Tumor:- Glandular carcinoma, Methods of spreads, staging, Grading Sarcoma, Lymphoma, Synovioma, Malignant melanoma, Malignant degeneration.	
16	2	2	**Ulcer, fistula and sinus:-**Ulcer: Classification, non specific ulcer, clinic exam.	
			Ulcer, fistula and sinus:-Symptomatology Pathologic exam, Sinus and fistula, treatment. Ulcer: Classification, non specific ulcer, clinical exam.	

Nangarhar medical Faculty

Public Health Department Curriculum for Medical Faculty

Subject : Public health				
Grade : 3 rd			**First Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	1	1	**Primary health care:-** Definition, History, Components, PHC in Afghanistan, Priority and needs	
2	1	1	**Environment Health: -** Environment, Communicable disease from Environment, Communicable diseases from water, Water Role in Communicable diseases.	
3	1	1	**Air born Communicable diseases: -** Communicable diseases Caused by garbage displacement and Control, Control of sources, Classification of environmental health, Air, Water and Waste.	
4	1	1	**Solid wastes:-** Perilous wastes, Food, Noise, Insects and chewing, Light, Close environment.	
5	1	1	**Chemical materials:-** Collection and Residence, Environment Dangers, Water: Clean Water, Water pollution, Water pollution sources.	
6	1	1	**Quality physical of Water:-** Water refinement, Purification of water, Water chemical purification, improving the provision of water.	

7	1	1	**Test quality of water: -** what is wastes, Fly, Chewing, Water pollution, Dust pollution.	
8	1	1	**Air Pollution:-** Types of solid wastes, Dangerous of sweeping, Collection and caring sweeping of city, Methods of rebuff sweepings.	
9	1	1	**Method of different Burial health sweepings: -** To use of wastes, Air Pollution, Trans air pollutuion.	
10	1	1	**Epidemiologic studies: -** Noise, Trans Noise to man, Hearing conservation programs.	
11	1	1	**Hospital infections and method of control: -** Hospital of disease, importance infections of hospital, Method transfer of micro- organism to hospital.	
12	1	1	**Surveillance: -** Medical care personal, Thumb pollex.	
13	1	1	**Collection and sweeping of hospital: -** Overtures, Antiseptic material.	
14	1	1	**Definition and concepts of anti- infection: -** Food hygiene, Trans and pollution of food.	
15	1	1	**Factors pollution and trans of food: -** General method of prevention to second pollutions, General method preservation of food, Food born disease.	
16	1	1	**Natural toxic materials:-**Importance bacteria and viruses in health food, importance points of oxidations food.	

Nangarhar medical Faculty

Public Health Department Curriculum for Medical Faculty

Subject : Public health				
Grade : 3 rd			Second Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	1	**Essential elements of food:-** Protein (essential amino acids, Function, sources, metabolism), Fats (Fatty acids, sources, functions, hydrogenation, fat and diseases) Carbohydrate (dietary fiber)	
2	1	1	**Vitamins: -** Vitamin A, Vitamin D, Vitamin E, Vitamin K.	
3	1	1	**Vitamins: -** Thiamin, Riboflavin, Niacin, Vitamin B_6, Pantothenic acid, Folate, Vitamin B_{12}, Vitamin C.	
4	1	1	**Minerals:-** Calcium, Phosphorus, Sodium, Potassium, Magnesium , Iron.	
5	1	1	**Minerals:-** Iodine, Fluorine, Zinc, Copper, Cobalt, Chromium, Selenium, Molybdenum.	
6	1	1	**Value of foods (nutrients):-** Cereals, Vegetables, Nuts, Fruits, Animal foods, Oil, Drinks.	
7	1	1	**Nutritional requirements: -** Basic concept, Energy, energy measurement, Energy requirement, Protein requirement, Assessment of protein, Protein quality, Assessment of nutritional status of Protein, Requirement of Protein intake, Requirement of Protein in Vulnerable groups, Amino acid requirement, Fats, Carbohydrate, Balanced diet, Dietary fiber.	
8	1	1	**Food and Diseases (under nutrition diseases):-** (under nutrition diseases), Low birth weight, Protein energy malnutrition, Xerophthalmia, Nutritional anemia, Iodine deficiency.	
9	1	1	**Over nutrition diseases: -** Endemic flurosis, Heart diseases, Diabetes, Obesity, Cancer.	
10	1	1	**Food born diseases: -** Food born diseases, Food toxicants, Neurolathyrism.	

11	1	1	**Assessment of nutritional status: -** Assessment methods, Clinical examination, Anthropometry, Biochemical and laboratory assessment, functional indicators, Assessment of dietary intake, Vital statistics, Assessment of ecological factors, Weight proportion, Body mass index.	
12	1	1	**Nutrition in vulnerable people (Pregnancy): -** Nutrition in pregnancy, Dietary balance in pregnant woman, Food regime in pregnant women, Pregnant women weight.	
13	1	1	**Effect of nutrition on fetus development: -** Nutrition methods that pregnant women should be avoided, Nutrition in lactation, Energy, Protein, Vitamins, Minerals.	
14	1	1	**Nutrition in Infants: -** Nutrition aspect of mother milk, Immunological aspect of mother milk, Benefit of mother milk, Condition that should not give her milk to baby, Weaning.	
15	1	1	**Nutrition in Adult: -** Energy and activities, Carbohydrates and fibers, Fats, Proteins, Vitamins, Water and Minerals, Social aspect of Nutrition, Prevention and social measures, Nutritional Surveillance.	
16	1	1	**Food surveillance:-** food hygiene, Milk hygiene, milk born disease, Clean milk, Pasteurization of milk, Meat hygiene, Meat inspection, fruits and vegetables, Food additive, Food fortification.	

Nangarhar medical Faculty

Islamic Study Department Curriculum for Medical Faculty

Subject : Islamic Study				
Grade : 3 rd			**First Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	1		Translation of Sourate Alfatiha (Part of Holy Quran)	
2	1	0	Translation of Sourate Alfatiha (Part of Holy Quran)	
3	1	0	Translation of Sourate Alqareah(Part of Holy Quran)	
4	1	0	Translation of Sourate Altakasour (Part of Holy Quran)	

5	1	0	Translation of Sourate Alaser (Part of Holy Quran)	
6	1	0	Translation of Sourate Alhomaza (Part of Holy Quran)	
7	1	0	Translation of Sourate Alfil (Part of Holy Quran)	
8	1	0	Translation of Sourate Alquraish (Part of Holy Quran)	
9	1	0	Translation of Sourate Almaon (Part of Holy Quran)	
10	1	0	Translation of Sourate Al (Part of Holy Quran)	
11	1	0	Translation of Sourate Alkawser & kafroon (Part of Holy Quran)	
12	1	0	Translation of Sourate Alnasar & Masad (Part of Holy Quran)	
13	1	0	Translation of Sourate Alekhlas & Maozateen (Part of Holy Quran)	
14	1	0	Means of component of Prayer in the 5 time(part of holy Quran)	
15	1	0	Information about Friday and Jenaza Prayer.	
16	1	0	Information about of Eid (Feast day) Prayer.	

Nangarhar medical Faculty

Islamic Study Department Curriculum for Medical Faculty

Subject : Islamic Study				
Grade : 3 rd			**Second Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	1	0	Introduction.	
2	1	0	Worldly Symbiosis in Islam	
3	1	0	Human Relative in Islam.	
4	1	0	Division of World in Islam Law.	
5	1	0	Pes's education in Islam.	
6	1	0	Islamic Policy about to the Symbiosis.	
7	1	0	Different between War and Jihad	
8	1	0	Became Worldly.	

9	1	0	Civilization talking.	
10	1	0	Civilization talking.	
11	1	0	Civilization talking.	
12	1	0	What is the Ideological Ware?	
13	1	0	What is the Ideological Ware?	
14	1	0	What is the Ideological Ware?	
15	1	0	Information about of Prophet Mohammad (saw)	
16	1	0	Information about of Prophet Mohammad (saw)	

Nangarhar medical Faculty

GRADE 4 TH

Nangarhar medical Faculty

Infectious disease & Tuberculosis Department Curriculum for Medical Faculty

Subject : Tuberculosis				
Grade : 4 th			First Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	1	**History of Tuberculosis:-** Brief history of TB in Afghanistan and World, Scientific progresses and views during the different civilizations.	
2	1	1	**Etiology and Pathogenesis: -** Agent and characteristics typical and atypical mycobacterium, Isolation of BK, method of eradication, TB Pathogenesis, routs of spread, development of the disease, course of infection in the organism.	
3	1	1	**Immunity and allergy in TB: -** Types of Immune response, Mechanism of immune response, cells and factors involved in the process, Allergy in TB and its mechanism. **Classification:** Clinical and Epidemiological classification.	
4	1	1	**Clinical forms of TB:-** Primary forms of TB:- Primary intoxication (Definition, clinical features, Diagnosis, Course and prognosis, Treatment), Chronic intoxication of TB:- (Definition, clinical features, Diagnosis, Differential diagnosis, Treatment), Primary Complex of TB:(Definition, Pathogenesis, Clinical features Course and complications, Prognosis, Treatment), Tuberculosis Bronchoadenitis: (Definition, Pathogenesis, Clinical forms, Clinical features, Diagnosis, D/Dx, Course and Complication, Treatment).	
5	1	1	**Secondary form of TB:-** (Essentials of differential diagnosis between primary and secondary forms of TB), Disseminated pulmonary TB, Acute	

			Disseminated pulmonary TB (Milliary TB):- Definition, Pathogenesis, Predisposing factors, Clinical forms and features, D/Dx, Complication, Prognosis, Treatment.	
6	1	1	**Sub acute disseminated Pulmonary TB:-** (Definition, clinical features, Differential diagnosis, Prognosis, Treatment). **Chronic disseminated Pulmonary TB:-** (Definition, Pathogenesis, clinical features, Differential diagnosis, Course and Prognosis, Treatment). **Focal TB: -** (Definition, clinical forms, clinical features, Diagnosis, Differential diagnosis, Treatment).	
7	1	1	**Infiltrative TB:** - (Definition, clinical forms, clinical features, diagnosis, Differential diagnosis, Treatment) **Cavernous TB:-** (Definition, pathogenesis, clinical forms, clinical features, diagnosis, Differential diagnosis, Treatment)	
8	1	1	**Pulmonary Tuberculoma:-** (Definition, pathogenesis, clinical forms, clinical features, diagnosis, Differential diagnosis, Treatment) **Fibro Cavernous TB:-** (Definition, pathogenesis, clinical forms, clinical features, diagnosis, Differential diagnosis, course and prognosis, Treatment)	
9	1	1	**Cirrhotic TB: -** (Definition, pathogenesis, clinical features, course and prognosis, Treatment) **Tuberculosis Pleurisy:- Fibrous Pleurisy:-** (Definition, pathogenesis, clinical features, Differential diagnosis, course and prognosis, Treatment)	
10	1	1	**Exodative Pleurisy: -** (Definition. Pathogenesis, clinical features, diagnosis, Differential diagnosis, complication and prognosis, Treatment) **Peripheral Lymphadenitis TB:-** (Definition, pathogenesis and route of spread, structure of lymph nodes and pathologic changes, clinical forms, clinical features, diagnosis, Differential diagnosis, Treatment).	
11	1	1	**Complication of TB: - Corpulmonal:-** (Definition, pathogenesis, clinical forms, clinical features, diagnosis, Treatment). **Homeostasis:** - (Definition, Pathogenesis, clinical	

			forms, diagnosis, Differential diagnosis, Treatment).	
12	1	1	**Spontaneous Pneumothorax: -** (Definition, pathogenesis, clinical forms, Treatment). Treatment of Tuberculosis:- (Principles of Treatment for TB Patient, Objectives, Specific or antibacterial treatments, Non Specific Treatment).	
13	1	1	**Pharmacological characteristics of anti TB drugs: -** Pathogenesis and Symptomatic treatments.	
14	1	1	**Prophylaxis of TB: -** BCG Vaccination (What is BCG, Pre administration preparations, Administration and stages of prophylaxis, Complication, Contraindication) Chemoprophylaxis:- (Definition, Primary and Secondary Chemoprophylaxis, Qualified groups, Period and method, Epidemiologic sanitary achievements).	
15	1	1	**Epidemiology and TB Control group: -** (Epidemiology of TB and epidemiologic parameters, National camping in the country).	
16	1	1	**Case finding:-** (Methods of case findings, Doctors duty in different branches in connection to case finding) **Ambulatory Treatment:-** (D.O.T.S and treatment regimens, Standard treatments)	

Nangarhar medical Faculty

Infectious disease & Tuberculosis Department Curriculum for Medical Faculty

Subject : Infectious disease				
Grade : 4 th			First Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	1	**General information about infectious disease:-** History, Infection, infectious processes, faith of infection in human body, clinical stages, differences of infectious diseases from non infectious diseases, nomenclature of infectious disease, complications.	
2	1	1	**Shigellosis: -** Definition, Etiologic agent, Epidemiology, Pathogenesis and Pathology, Clinical manifestation, Complication, Diagnosis, Treatment, Prevention.	
3	1	1	**Enteric Fever: -** Definition, Etiologic agent, Epidemiology, Pathogenesis and Pathology, Clinical manifestation, Diagnosis and laboratory findings, Treatment, Prevention.	
4	1	1	**Bacterial Food Poisoning:-** Etiologic agent, laboratory findings, Treatment, Prophylaxis.	
5	1	1	**Cholera: -** Definition, Etiologic agent, Epidemiology, Pathogenesis and Pathology, Clinical manifestation, Diagnosis and laboratory findings, Treatment, Prevention.	
6	1	1	**Viral Hepatitis: -** General information, Etiologic agent, Epidemiology, Pathogenesis and Pathology , Clinical manifestation, Complication, Diagnosis, Treatment, Prevention.	
7	1	1	**Amebiasis: -** Definition, Transmission and life cycle, Epidemiology, Classification, Pathogenesis and pathology, Clinical syndromes, Complications, Laboratory findings, Differential Diagnosis, Treatment, Prevention.	
8	1	1	**Influenza: -** Definition, Etiologic agent, Epidemiology, Pathogenesis and Immunity , Clinical manifestation, Complication, Libratory	

			findings and Diagnosis, Differential Diagnosis Treatment, Prophylaxis.	
9	1	1	**Diphtheria: -** Definition, Etiologic agent, Immunity, Epidemiology, Pathogenesis and pathology, Clinical manifestation, Complication, Prognosis, Diagnosis, Management, Prevention.	
10	1	1	**Infectious Mononucleosis: -** Definition, Epidemiology, pathogenesis, Clinical findings, Laboratory finding, Complication, Diagnosis, Differential Diagnosis, Treatment,	
11	1	1	**Meningococcal Diseases:-** Definition, Etiology, Epidemiology, Pathogenesis, Classification, Clinical manifestations, Meningococcemia, Meningitis, Diagnosis, Treatment, Prognosis, Prevention.	
12	1	1	**Malaria: -**Definition, Etiology and Pathogenesis, Schizogony, Sporogony, Epidemiology, Clinical manifestation, Sever malaria, Complications, Diagnosis, Treatment, Prevention briefly.	
13	1	1	**Brucellosis: -** Definition, Etiology, Epidemiology, Pathogenesis and Immunity, Clinical manifestation, Complication, Diagnosis, Treatment, Prevention.	
14	1	1	**Anthrax: -** Definition, Etiology and Epidemiology, Pathogenesis, Clinical manifestation, Classification, Laboratory findings, Diagnosis, Treatment, Prevention, Prognosis.	
15	1	1	**Rabies:** - Definition, Etiologic agent, Epidemiology, pathogenesis, Clinical manifestation, Laboratory findings, Treatment.	
16	1	1	**Tetanus: -** Definition, Etiologic agent, Epidemiology, Pathogenesis, Clinical manifestation, Classification, Diagnosis, Treatment, Prevention, Prognosis.	

Nangarhar medical Faculty

Pharmacology Department Curriculum for Medical Faculty

Subject : Pharmacology				
Grade : 4 th			**First Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	1	1	**Anti- infective Cephalosporin's / other betalactamase:-** Carbapenems/ Monobactams/ Cephalosporin's (1 st – 2 nd – 3 rd – 4 th –generations), Cephalaxine, Cefaclor, Cefuroxime, Ceftriaxone, Cefotaxime) **Content for Presentation included:-** Pharmacokinetic, Mode of action, Clinical usage, Side effects, Contraindications, Cautions, Drug interaction, Dose, Strength & Dosage form.	
2	1	1	**Anti- infective** Aminnoglycoside (Gentamicine, Streptomycin, Neomycin, Amikacine) Macrolide (Erythromycin, Azithromycine, Clarithromycine) **Content for Presentation included:-** Pharmacokinetic, Mode of action, Clinical usage, Side effects, Contraindications, Cautions, Drug interaction, Dose, Strength & Dosage form.	
3	1	1	**Anti- infective Tetracycline's & Chloramphenicol, Quinolones & other Anti infective drugs used for Anaerobic infections:** - Tetracycline (Tetracycline, Doxycycline), Chloramphenicol, Quinolones(Nalidixic acid, Ciprofloxacin, ofloxacine) **Content for Presentation included:-** Pharmacokinetic, Mode of action, Clinical usage, Side effects, Contraindications, Cautions, Drug interaction, Dose, Strength & Dosage form.	
4	1	1	**Anti-TB Drugs:-** (Isoniazid, Rifampicin, Ethambutol, Pyrazinamide, streptomycin) **Antileprosy** (Dapsone, Clofazimine) **Content for Presentation included:-** Pharmacokinetic, Mode of action, Clinical usage, Side effects, Contraindications, Cautions, Drug interaction, Dose, Strength & Dosage form.	

5	1	1	**Anti-fungal Drugs:** - Introduction (Amphotracine B, Ketoconazol, Griseoflavin, Nystatin, Salicylic acid + Benzoic acid, Miconazol, Sodium thiosulfate) **Content for Presentation included:-** Pharmacokinetic, Mode of action, Clinical usage, Side effects, Contraindication, Cautions, Drug interaction, Dose, Strength & Dosage form.	
6	1	1	**Anti-Protozoal Drugs (Anti-Amebic):** -Introduction, Anti amebic (Metronidazol, Tinidazol, Emetine, Diloxanid, Furoate, Tetracycline, Paromomycine, Diiodohydroquine) **Content for Presentation included:-** Pharmacokinetic, Mode of action, Clinical usage, Side effects, Contraindication, Cautions, Drug interaction, Dose, Strength & Dosage form.	
7	1	1	**Anti-Protozoal Drugs (Anti-Malarial): -** Introduction (Chloroquine, Primaquin, Mefloquine, Haloantrin, Proguanil, Quinine, Sulfadoxine+Pyrimethamine (Fansidar) **Content for Presentation included:-** Pharmacokinetic, Mode of action, Clinical usage, Side effects, Contraindication, Cautions, Drug interaction, Dose, Strength & Dosage form.	
8	1	1	**Anti-Protozoal Drugs (Anti-Lieshmaniasis): -** Introduction (Meglumine antimonite & Sodium Stibogluconate, Pentamidine) **Content for Presentation included:-** Pharmacokinetic, Mode of action, Clinical usage, Side effects, Contraindication, Cautions, Drug interaction, Dose, Strength & Dosage form.	
9	1	1	**Anthelmentics: -** Introduction (Lewamisole, Mebendazole, Niclosamide, Peprazine, Pyrental, Albendazole) **Content for Presentation included:-** Pharmacokinetic, Mode of action, Clinical usage, Side effects, Contraindication, Cautions, Drug interaction, Dose, Strength & Dosage form.	
10	1	1	**Anti- septic & Disinfectants: -** (Alcohols, Aldehydes, Glutaral, Halogens, Gention Voilet, Oxidizing agents Phenols, Silver Sulphadiazine) **Content for Presentation included:-** Pharmacokinetic, Mode of action, Clinical usage, Side effects, Contraindication, Cautions, Drug interaction, Dose, Strength & Dosage form.	

11	1	1	**Vitamins & Minerals:-** (Water & Fat Soluble Vitamins, Calcium Gluconate, Iodine, Sodium Fluoride) **Content for Presentation included:-** Pharmacokinetic, Mode of action, Clinical usage, Side effects, Contraindication, Cautions, Drug interaction, Dose, Strength & Dosage form.	
12	1	1	**Anti-epileptic Drugs: -**(Barbiturates, Carbamazepine, Sodium Valporate, Phenytoin, Ethosuximide, Diazepam) **Content for Presentation included:-** Pharmacokinetic, Mode of action, Clinical usage, Side effects, Contraindication, Cautions, Drug interaction, Dose, Strength & Dosage form.	
13	1	1	**Anti-Parkinson Drugs: -** (Levodopa, Carbidopa, Bromocriptine, Benzhexol, Biperidine) **Content for Presentation included:-** Pharmacokinetic, Mode of action, Clinical usage, Side effects, Contraindication, Cautions, Drug interaction, Dose, Strength & Dosage form.	
14	1	1	**Drug Dependence/ CNS Stimulants: -** (Drug Abuse, Withdrawal Syndrome, Classification of drugs, dependent Agents, Cannabis, Cocaine, Alcohol, Hallucinogens, Inhalants, CNS Stimulants) **Content for Presentation included:-** Pharmacokinetic, Mode of action, Clinical usage, Side effects, Contraindication, Cautions, Drug interaction, Dose, Strength & Dosage form.	
15	1	1	**Anesthetics: -** General:- (Halothane, Enflurne, isofurane, Nitrous Oxide, Thiopental, Ketamine, Propofole). Local:- (Lidocain, Bupivacaine, Benzocaine, Tertacaine, Procaine, Amethocaine, Prilocaine) **Content for Presentation included:-** Pharmacokinetic, Mode of action, Clinical usage, Side effects, Contraindication, Cautions, Drug interaction, Dose, Strength & Dosage form.	
16	1	1	**Anti-neoplastic Drugs: -** (Antimetabolites, Alkayting Agents, Cytotoxics, Vinca, Alkaloids, Others) **Content for Presentation included:-** Pharmacokinetic, Mode of action, Clinical usage, Side effects, Contraindication, Cautions, Drug interaction, Dose, Strength & Dosage form.	

Nangarhar medical Faculty

Internal Medicine Department Curriculum for Medical Faculty

Subject : Internal Medicine				
Grade : 4 th			First Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	2	2	**Atherosclerosis:-** Definition, Risk factors, pathogenesis of atherosclerosis, Initiation of atherosclerosis, Atheroma evolution and complications, Clinical syndromes of atherosclerosis.	
2	2	2	**Ischemic Heart Disease:** - Definition, Etiology and Pathophysiology Effect of ischemia, Stable angina pectoris Unstable angina Pectoris, Asymptomatic ischemia.	
3	2	2	**Acute Myocardial infarction: -** Definition, Etiology, Pathophysiology.	
4	2	2	**Clinical manifestation:-** Complication and their Treatment, Secondary Prevention of Infarction **Hypertensive Vascular Disease** Essential hypertension, Secondary Hypertension.	
5	2	2	**Effects of Hypertension:** - Approach to the Patient Treatment (Incidence for therapy) Drug therapy for hypertension, Malignant hypertension, Emergency and urgencies, Treatment.	
6	2	2	**Congenital heart disease in the adult.** • A cyanotic congenital heart disease with left to right shunt. • A cyanotic heart disease Without shunt. • Cyanotic congenital heart disease with decreased pulmonary flow. • Cyanotic congenital heart disease with increased pulmonary flow.	
7	2	2	**Rhythm and conduction disturbances: -** Anatomy of the Conducting system The bradyarrhythimias, Sinus node dysfunction. AV conduction disturbances, Tachyarrhythmia's	

			Premature complex.	
8	2	2	Tachycardia, Sinus tachycardia, Atrial fibrillation, Atrial flutter, PSVT, Per excitation syndrome Ventricular tachycardia, Ventricular flutter Ventricular fibrillation.	
9	2		**Heart failure** Definition, Etiology, Pathophysiology, Precipitating causes, Form of Heart failure.	
10	2	2	Clinical manifestation, Treatment, Cardiac transplantation, Treatment of acute pulmonary edem.	
11	2	2	**Cardiomyiopathies** Definition, Classification of CM Dilated (congestive) Cardiomyopathy, Hypertrophic cardiomyopathy, Restrictive cardiomyopathy Non compaction cardiomyopathy Takotsubo cardiomyopathy.	
12	2	2	**Cor pulmonale** Pathophysiology, Pulmonary vascular disease (Cor Pulmonale due to pulmonary emboli) Parenchymal pulmonary disease. Clinical manifestation and physical finding. **Myocarditis** Definition, Etiology, HIV myocarditis, Bacterial myocarditis, Chagas disease Gaint cell myocarditis, Lyme carditis.	
13	2	2	**Pericardial disease** Classification of Pericarditis, Clinical classification, Etiologic classification, Acute pericarditis, Post cardiac injury syndrome. Chronic pericardial effusion, Chronic constructive pericarditis.	
14	2	2	**Shock** Pathogenesis, Organ response, Specific form of shock, Cardiogenic shock, Septic shock, Hypovolemic.	
15	2	2	**Syncope, Cardiovascular collapse, Cardiac Arrest and Sudden cardiac death:** Definition, Etiology, pathology Clinical manifestation, Identification of patient at Risk for Sudden Cardiac Death, Treatment.	
16	2	2	**Cardiac disease, Surgery and Pregnancy Coronary artery disease and surgery:** Hypertension and surgery, Arrhythmia and surgery, Hypertension and pregnancy, IHD and pregnancy, Cardiomyopathy and pregnancy.	

Nangarhar medical Faculty

Internal Medicine Department Curriculum for Medical Faculty

Subject : Internal Medicine				
Grade : 4 th			Second Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	2	2	**Esophageal Disease:-** Gastroesophagial Reflux disease: Pathophysiology, Clinical feature, Diagnosis, Treatment. **Achalasia: -** Pathophysiology, Clinical feature, Diagnosis, Treatment, Oropharyngeal paralysis, Diffuse esophageal spasm, inflammatory disease.	
2	2	2	**Gastritis and Gastropatht: -** Gastritis, NSAIDs gastritis, H-Pylori gastritis. Bike Reflux gastritis: Definition, classification, Diagnostic procedure, Diagnosis, Treatment, Type A and Type B gastritis.	
3	2	2	**Peptic Ulcer disease: -** Gastric physiology, Gastric anatomy, Secretion, Gastro duodenal Mucosal defense, Pathophysiology. Gastric ulcer, Duodenal ulcer:- Clinical feature (History, Physical examination) PUD- Related Complication: Gastro intestinal bleeding, Perforation, Outlet, Obstruction, Evaluation.	
4	2	2	**Management,** Antacid, H2-receptor antagonist, PPI, Sacralfate, Prostaglandin analogues, H-pylori regime **Zollinger Ellison Syndrome:** Definition, Pathophysiology, Clinical features, Diagnosis, DDx and Treatment.	
5	2	2	**Inflammatory Bowel Disease:** - Epidemiology, Etiology, pathogenesis, Pathology, Clinical presentation.Differential Diagnosis of UC and CD.	
6	2	2	**Extra intestinal manifestation,** Treatment inflammatory bowel disease and pregnancy Malabsorption Syndrome: Celiac sprue, Short bowel syndrome, Bacterial overgrowth, Wipple disease, Protein losing enteropathy	

7	2	2	**Unconjugated Hyperbilirubenemia related Disease: -** Criggler Najjar Syndrome, Gilbert's Syndrome **Conjugated and Mixed Hyperbilirubinemia related disease:** Dubin Johnson Syndrome, Rotor Syndrome.	
8	2	2	**Chronic Hepatitis:** Definition, Classification (Cause grade, stage) Chronic viral Hepatitis, autoimmune and drug induced Hepatitis.	
9	2		**Liver cirrhosis:** Definition, Classification, Alcoholic. Post necrotic Primary Billiary, Secondary Billiary cirrhosis and cardiac cirrhosis. **Complications:** portal hypertension, variceal bleeding, splenomegaly, ascitis, SBP, HSR, HE, coagulopathy, hypoxia, HPS, HCC.	
10	2	2	**Acute Pancreatitis:** Definition, Etiology, Pathogenesis, Clinical feature, Diagnosis, Treatment, Prognosis. **Chronic Pancreatitis:** Definition, Etiology, Pathogenesis, Clinical feature, Diagnosis, Treatment, Prognosis.	
11	2	2	**Urinary Tract Infection (UTI)** Acute Pyelonephritis, Acute prostatitis, Acute cystitis. **Chronic Pyelonephritis,** Etiology, Clinical picture, Treatment.	
12	2	2	**(GN) The major glomerulopathies** Rapidly progressive GN, Post streptococcal GN, Anti GBM disease **Minimal change disease:** Focal & Segmental GN, Membranous & Membranoproliferative GN.	
13	2	2	**Nephrotic Syndrome (NS):-** General feature, Complication, Etiology, Differential diagnosis.	
14	2	2	**Acute renal failure (ARF):-** Etiology, pathophysiology, Clinical feature, Differential diagnosis. Treatment outcome and long term prognosis.	
15	2	2	**Chronic renal failure (CRF):-** Mechanism of chronic renal failure, clinical & laboratory treatment.	
16	2	2	**Hemodialysis,** Peritonialdialysis. Kidney transplantation.	

Nangarhar medical Faculty

Surgery Department Curriculum for Medical Faculty

Subject : Surgery				
Grade : 4 th			First Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	2	2	**The Stomach and Duodenum** (Anatomy & Physiology) **Peplic ulcer**(Common surgical treatment of peptic ulcer, complication)	
2	2	2	**The Stomach and Duodenum** (Perforated peptic ulcer (Etiology, Pathology, Clinical feature and Treatment). **Pyloric Stenosis** (Etiology, Pathology, Clinical feature)	
3	2	2	**The Stomach and Duodenum: -** (PU Bleeding: Etiology, Clinical feature and treatment. **The Stomach and Duodenum:** Gastric Neoplasm: (Classification, Etiology, pathology, Clinical features and Treatment.	
4	2	2	**The Stomach and Duodenum** (Foreign bodies in the stomach, clinical feature and treatment) **The Stomach and Duodenum** (Volvulus of the stomach: Etiology, Clinical feature and Treatment).	
5	2	2	**The Small Intestine** (Anatomy and Physiology, Mickles Diverticulum's) **The Small Intestine** (Crohins disease: Etiology, clinical features and treatment)	
6	2	2	**The Small Intestine** (Obstruction of the mesenteric vessels: Etiology, Pathology, Clinical features and treatment). **The Small Intestine** (Tumors: Classification, Clinical features and Treatment).	
7	2	2	**Intestinal Obstruction** (Definition, Classification, Etiology, Anatomopathology, Clinical features and Treatment). **Intestinal Obstruction** (Specific Type of Obstruction: Intussusceptions, pathology, etiology, clinic & treatment).	

8	2	2	**Intestinal Obstruction** (Vovulus of colon sigmoid & cecum: Etiology, pathology, clinical features and treatment).	
			Intestinal Obstruction (Paralytic ilius: etiology, clinic features, differential diagnosis and treatment.	
9	2	2	**The Appendix** (Anatomy, physiology, Acute Appendicitis, etiology, pathology, clinical features and treatment).	
			The Appendix (Mass Appendiculair, pathology, clinical features and treatment)	
10	2	2	**The colon** (Anatomy, physiology, sign and symptoms of colonic disease)	
			The Colon (common surgical treatment in colonic disease colostomy).	
11	2	2	**The Colon** (Ulcerative Colitis: Etiology, pathology, clinical features, investigation, complications and treatment).	
			The Colon (Diverticulitis and Diverticulosis: etiology, pathology, clinical features, differential diagnosis and treatment).	
12	2	2	**The Colon** (Tuberculosis of ileoceacal: definition, clinical features, anatomopathology, diagnosis and treatment).	
			The Colon (Colonic Tumors: classification, pathology, clinical features, investigation, DD and treatment).	
13	2	2	**The Rectum and Anal Canal** (**Anatomy**, Physiology of rectum).	
			The Rectum and Anal Canal (sign and symptoms of Anorectal diseases)	
14	2	2	**The Rectum and Anal Canal** (Hemorrhoid: etiology, clinical features, complications and treatment).	
			The Rectum and Anal Canal (Anal Fissure: site, etiology, pathology, clinical feature, DD, and treatment).	
15	2	2	**The Rectum and Anal Canal (**Ano-rectal Fistula: incidence, etiology, classification, clinical features and treatment).	
			The Rectum and Anal Canal (Ano-rectal Abscess: etiology, clinical features, DD and Treatment).	
16	2	2	**The Rectum and Anal Canal** (Ano-rectal Prolaps: etiology, pathology, clinical feature, complication and treatment).	
			The Rectum and Anal Canal (Ano-rectal Tumors: classification, Pathology, clinical features, DD, treatment).	

Nangarhar Medical Faculty

Urology Department Curriculum for Medical Faculty				
Subject: Urology				
Grade: 4th			**Second Semester**	
Week	**Hour**		**Topic**	**Note**
	Theory	**Practical**		
1	1	1	**Anatomy and Physiology of Genitourinary tract:** Kidneys including: (calyces and renal pelvis). Ureter, Urinary bladder, Prostate gland, Scrotum including: (Testes, Epididymis, spermatic cord, Seminal vesicle). Penis and male urethra, Female urethra. Physiology of Genito-urinary tract: Kidney, Renal pelvis and uteter, Urinary bladder, Prostate and seminalvesicle	
2	1	1	**Embryology of genitor-urinary tract:** Nephric system, Genital ducts system, Gonads, Vesico-ureteral unit, Extarnal genitalia. Congenital Disorder (Anomalies) of genitor-urinary tract: Kidneys, Ureter, Urinary bladder, Urethra and penis, Scrotum and testicales.	
3	1	1	**Symptoms/sign and physical examination of urinary tract diseases:** Symptoms including: (Systemic symptoms, related to sexual disorders), Symptoms related to micturition, Qualitative/quantitative changes of urine, sign including: (Palpable mass etc.). **Physical examination:** Kidneys, Urinary bladder, External male genitalia including: (Penis, scrotum, testes, epididymis, spermatic cord and vas deference), DRE (Digital rectal examination): (Prostate, seminal vesicle), Examination of Lymph nodes, Neurological examination, Examination	

			of female genetalia.	
4	1	1	**Laboratory Examinations:** urine R/E (Routine examination) and urine C/S (culture and sensivity), Radiological and imaging examinations, Radiology, Imaging (Uro-radiology) and endoscopies: KUB, IVU or IVP, Ultrasound, CT-scan, MRI, Endo-urology (diagnostic/therapeutic).	
5	1	1	**Urinary Tract Obstruction and Stasis:** Hydronephrosis e.g. PUJ obstruction, Hydro ureter e.g. ureterocele, VUJ obstruction.	
6	1	1	**Vesico Urethral reflex**: BOO (bladder outlet obstruction) including: post urethral valae, BPH, congenital bladder enck obstruction, Urethral stricture, Meatal stenosis.	
7	1	1	**Bacterial and specific Infection of U.G.T: Kidney:** {Acute Pyelonephritis, Chronic Pyelonephritis, Renal cortical abscess (Renal carbuncle), Perinephric abscess, Pyonephrosis, Renal T.B}, Urinary bladder: (Acute Cystitis, Chroni Cystitis)	
8	1	1	**Bacterial and specific Infection of U.G.T: Prostate:** (Acute bacterial prostatitis, Chronic prostatitis, Prostatic abscess), Testes and Epididymis: (Acute epididymitis, Chronic epididymitis, Acute orchitis), Urethra: (Urethritis, Balanitis).	
9	1	1	**Urinary stones**: Renal stones, Ureteral stones, Urinary bladder stones, Prostatic and seminal vesicle stones, Urethral stones.	
10	1	1	**Traumas (Injuries of GUT):** Kidneys, Ureter, Urinary bladder, Sacrotum, Penis.	
11	1	1	**Tumors:** Kidneys e.g. Adeno-carcinoma, Nephroblastoma.	
12	1	1	**Tumors:** Ureter and urinary bladder e.g. Urethral carcinoma (TCC).	

13	1	1	**Tumors** of prostate, testes and penis.	
14	1	1	**External genitalia diseases and male infertility:** Male descend of testes, Hypospediasis, Post urethral valve, Epispadiasis, Phemosis, Paraphemosis, Testiculartotion, Hydrocele, Varicocele.	
15	1	1	**Urinary fistula**: V VF (Vesiceo-vaginal fistula), UVF (Uretero-vaginal fistula)	
16	1	1	**Renal Failure**	

Nangarhar medical Faculty

Surgery Department Curriculum for Medical Faculty

Subject : Surgery				
Grade : 4 th			Second Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	2	2	**The Liver** (Anatomy, Physiology, specific investigation)	
			Hepatic and post hepatic jaundice (History and investigation)	
2	2	2	**The Liver** (Hepatic trauma, Pyogenic Abscess) Etiology, Pathology, Clinical features and treatment.	
			The Liver (Amoebic Abscess of the liver), Etiology, Pathology, Clinical features and treatment.	
3	2	2	**The Liver** (Liver Hydated Cyst) Etiology, Pathology, Clinical features and treatment)	
			The Liver (Hepatic Tumors). Etiology, Pathology, Clinical features and treatment.	
4	2	2	**The Gall Bladder** (anatomy, physiology, congenital anomaly, investigation)	
			The Gall Bladder (Gall stone or Cholelithiasis) Etiology, pathology, Clinical features and treatment.	
5	2	2	**The Gall Bladder** (Acute and Chronic Choecystitis). Etiology, pathology, Clinical features and treatment.	
			The Gall Bladder (Stones in the bile ducts). Etiology, pathology, Clinical features and treatment.	
6	2	2	**The Gall Bladder** (Sclerosing Cholangitis). Etiology, pathology, Clinical features and treatment.	
			The Gall Bladder (Carcinoma of the Gallbladder and Biliary Fistula) Etiology, pathology, Clinical features and treatment.	
7	2	2	**The Pancreas** (Anatomy, Physiology, congenital anomalies).	
			The Pancrease (injuries to the Pancreas and pancreatic fistula). Etiology, pathology, Clinical features and treatment.	

8	2	2	**The Pancreas** (Acute Pancreatitis). Etiology, pathology, Clinical features and treatment.	
			The Pancreas (Chronic Pancreatitis). Etiology, pathology, Clinical features and treatment.	
9	2	2	**The Pancreas** (Pancreatic Cyst).Etiology, Pathology, Clinical feature and treatment.	
			The Pancreas (Pancreatic Tumors). Etiology, Pathology, Clinical feature and treatment.	
10	2	2	**The Spleen** (Anatomy, physiology,splenectomy)	
			The Spleen (Spleen Rupture). Etiology, Pathology, Clinical features and treatment.	
11	2	2	**The Peritoneum** (Anatomy, physiology of the Peritoneum).	
			Acute Generalized Peritonitis Etiology, Pathology, Clinical features and treatment.	
12	2	2	**The Peritonitis** (Acute Localized Peritonitis). Etiology, Pathology, Clinical features and treatment.	
			The Peritoneum (Chronic Peritonitis). Etiology, Pathology, Clinical features and treatment.	
13	2	2	**Hernia** (Etiology, composition of hernia, classification or anatomopathology.	
			Hernia (Reducible hernias) Etiology, Pathology, Clinical features and treatment.	
14	2	2	**Hernia** (Irreducible Hernia or Strangulated Hernias) Etiology, Pathology, Clinical features and treatment.	
			Hernia (Inguinal Hernias). Etiology, Pathology, Clinical features and treatment.	
15	2	2	**Hernias** (Femoral Hernias) Etiology, Pathology, Clinical features and treatment.	
			Hernia (Incisional Hernias). Etiology, Pathology, Clinical features and treatment.	
16	2	2	**Hernia** (Umbilical Paraumblical). Etiology, Pathology, Clinical features and treatment.	
			Hernia (Epigastric Hernias). Etiology, Pathology, Clinical features and treatment.	

Nangarhar medical Faculty

Radiology Department Curriculum for Medical Faculty

Subject : Radiology & Imaging				
Grade : 4 th			First Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	1	**Principle of Conventional Radiology (**History, Physics, cooling tube, x-ray film)	
2	1	1	**Radiography systems** (Digital and analogue system), Processing system (CR system and analogue processing)	
3	1	1	**Quality of Image** (Resolution, exposure, position, processing)	
4	1	1	**Conventional Angiography** (Principle, Technique, Types, indication)	
5	1	1	**Radioprotection** (Dose allowance for patient and staff, dosimeter, biological effects)	
6	1	1	**Ultrasonography** (Principles, Technique, Types, Terminology)	
7	1	1	**Computed Tomography** (Principle, Technique, Types)	
8	1	1	**Magnetic Resonance Image or MRI** (Principle, technique, Types, Contra indication)	
9	1	1	**Scintegraphy** (principle, Technique, indication	
10	1	1	**Radiology of the GI System** (Plain x-ray, special procedures with contrast)	
11	1	1	**Urinary tract Imaging** (KUB, IVP)	
12	1	1	**Urinary tract Imaging** (Ultrasound, CT Scan, Scintigraphy, MRI)	
13	1	1	**Chest Imaging** (Modalities, Chest x-ray, Terminology)	
14	1	1	**Chest Imaging** (Different types of Pneumonia, Pulmonary TB, Broncholitis)	
15	1	1	**Cardiac Imaging** (Modalities, Anatomical variants of the Heart)	
16	1	1	**Cardiac Imaging** (Radiological semiology , Aortic disorders)	

Nangarhar medical Faculty

Radiology Department Curriculum for Medical Faculty

Subject : Radiology & Imaging				
Grade : 4 th			Second Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	1	**Breast Imaging** (Mammography, Ultrasound, MRI)	
2	1	1	**Pathology of the Breast** (Infection, Neoplasm)	
3	1	1	**Neuroradiology** (Modalities, skull X-ray, Ultrasound, CT scan, MRI, Angiography, Scintegraphy)	
4	1	1	**Neuroradiology** (Cerebrovascular Accident, Head trauma)	
5	1	1	**Neuroradiology** (Brain Tumor, Brain infection)	
6	1	1	**Spine Imaging Modalities** (Radio anatomy, Trauma)	
7	1	1	**Osteo- articular Imaging** (Radio anatomy, Fractures)	
8	1	1	**Osteo- articular Imaging** (Osteoporosis, Osteoperosis, Rickets)	
9	1	1	**Imaging of nose and Para nasal sinuses** (Radioanatomy, infection, Tumor, Trauma)	
10	1	1	**Radiotherapy** (Principles, Radiation Dose)	
11	1	1	**Instrument of Radiotherapy** (Cobalt 60, LINAC, Brachy therapy)	
12	1	1	**Radiobiology** (Tumor sensitivity against Radiation)	
13	1	1	**Therapeutic techniques** (Brachy therapy and Teletherapy)	
14	1	1	**Types of Treatment** (Palliative and Curative)	
15	1	1	**Failure of Radiotherapy** (Miscalibration of the instruments, Error of the Radiation therapy technologist and physicist)	
16	1	1	**Protection of other tissue during Radiotherapy** (Shielding, Mask, Filter)	

Nangarhar medical Faculty

Obstetrics & Gynecology Department Curriculum for Medical Faculty

Subject : Obstetric				
Grade : 4 th			First Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	1	**Female genital anatomy:** - extra genitalia, intra genitalia, Vagina, Cervix, uterus, Uterine tube.	
2	1	1	**Female genital anatomy:** - Ovary, innervations, blood supply, pelvis bones and pelvis floor.	
3	1	1	**Menstrual Cycle Physiology: -** Proliferate phase, Ovulatory phase, Secretary phase, Menstrual phase, Changes in Cervical Mucus & Vaginal Cytology, Function of estrogen & Progesterone.	
4	1	1	**Menstrual Cycle Physiology: -** Proliferate phase, Ovulatory phase, Secretary phase, Menstrual phase, Changes in Cervical Mucus & Vaginal Cytology, Function of estrogen & Progesterone.	
5	1	1	**Placenta ion: -** (Fertilization, Implementation, Placenta ion, Mature placenta, Types of placenta), Umbilical cord, Fetal Membrane Amniotic fluid.	
6	1	1	**Placenta ion: -** (Fertilization, Implementation, Placenta ion, Mature placenta, Types of placenta), Umbilical cord, Fetal Membrane Amniotic fluid.	
7	1	1	**Fetus:-** Cardiovascular, Gastrointestinal tract, Liver, Kidney, Endocrine, Nervous system.	
8	1	1	**Physiology change during Pregnancy: -** Cardiovascular, Hematologic organ, Respiratory, GI tract, Urogenital, Hormonal.	
9	1	1	**Diagnosis of Pregnancy: -** Presumptive Manifestation of Pregnancy, Probable manifestation of pregnancy, Positive manifestation of pregnancy.	
10	1	1	**Antenatal care: -** General concept, initial antenatal evolution. Initial assessment of gestational age & EED, subsequent antenatal evaluation, antepartum management plans and patient evolution.	
11	1	1	**Fetal assessment: -** assessment for fetal growth,	

			assessment of fetal well-being, assessment of fetal maturity.	
12	1	1	**Normal labor:-** change before the onset of labor, evolution of labor. 1. First stage: - Management of first stage, initial examination of the first labor, Preparation of the patient for labor, Further examination and Procedure.	
13	1	1	**Normal labor:-** 2. .second stage:- Management of the second stage, Vertex delivery, Delivery of head, shoulder, body and Extremities, Early care of Newborn, 3. Third stage: - Management of third stage, Delivery of placenta, Sign and mechanism of removal of placenta.	
14	1	1	**Resuscitation of neonatal with respiratory distress syndrome:** Examination of the full term new born.	
15	1	1	**High Risk pregnancy: -** General concept, Diagnosis, Differential diagnosis, Treatment, Prognosis, Assessment of mother and child during high risk pregnancy.	
16	1	1		

Nangarhar medical Faculty

Obstetrics & Gynecology Department Curriculum for Medical Faculty

Subject : Obstetric				
Grade : 4 th			Second Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	1	**First trimester Vaginal bleeding: -** Abortion- definition Types (spontaneous and induced abortion) Types of spontaneous abortion, Types of induced abortion.	
2	1	1	**Mole hydatiform:** - Definition and classification, clinical finding, Diagnosis, Differential Diagnosis, complication, Treatment and treatment of complication.	
3	1	1	**Ectopic Pregnancy: -** Definition, Etiology, Clinical finding, Diagnosis, Complication, Treatment, Prognosis.	
4	1	1	**(APH) Antepartum hemorrhage: -** Third trimester vaginal bleeding: - (Placenta previa):- Definition, Etiology, types, Clinical finding, Diagnosis, Differential Diagnosis, Complication, Treatment, Prognosis.	
5	1	1	**Abruptio Placenta: -** Definition, Etiology, types, Clinical finding, Diagnosis, Differential Diagnosis, Complication, Treatment, Prognosis.	
6	1	1	**Post partum Hemorrhage (PPH): -** Definition, Etiology, Management, Atony of uterus, Manual removal of placenta, Birth canal laceration.	
7	1	1	**Male presentation Breach:-** Definition, Etiology, Management, external breech extraction.	
8	1	1	**Cord Prolapsed:** - Definition, Etiology, clinical finding, complication, Prevention and management.	
9	1	1	**Shoulder dystocia: -** Definition, risk factors, clinical finding, complication, prevention, management.	
10	1	1	**Operative delivery: -** (cesarean section, Forceps & Vacuum)	

			C/s-(definition, indication, procedure, complications, VEBAC) forceps & Vacuum (definition, indication, procedure, complication).	
11	1	1	**Preterm Labor: -** Definition, Etiology, complications, Management.	
12	1	1	**Hypertension during Pregnancy:-** (Preeclampsia & Eclampsia):- Definition, Pathogenesis, Sign & Symptoms, Management, Complication, Prevention, Treatment.	
13	1	1	**Rh.Incompability (Erythroblastosis Fetalis):-** Rh- isoimmunization, Pathogenesis, Clinical finding, Amniocentesis, indication for RhoGAM, Intrauterine transfusion Delivery plane.	
14	1	1	**Post term pregnancy:** general concepts, etiology, effect, diagnosis, management.	
15	1	1	**Medical and surgical condition of pregnancy: -** Anemia in pregnancy UTI in pregnancy Renal disease in pregnancy.	
16	1	1	**Cardiac disease in pregnancy** Thyroid disease in pregnancy Diabetes in pregnancy.	

Nangarhar medical Faculty

Public Health Department Curriculum for Medical Faculty

Subject : Public Health				
Grade : 4 th			First Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	1	**Epidemiology of Chronic Non Communicable diseases: -** Definition of chronic diseases, Non Communicable diseases risk factors, Problems in Prevention of chronic communicable diseases. Prevention, Stages of disease prevention: Primordial prevention, Primary prevention, secondary prevention, Tertiary prevention.	
2	1	1	**Prevention of chronic heart disease: -** Epidemiological studies, Risk factors, Prevention, Prevention of hypertension, Blood pressure measurement, problem, Risk factor, prevention.	
3	1	1	**Prevention of Rheumatic Heart disease: -** Problem, Epidemiological factors, Prevention, Prevention of stroke: problem, Diseases prevalence, Mortality and morbidity, Risk factors, Stroke control program.	
4	1	1	**(Prevention of Obesity: -**Prevalence, Epidemiological factors, Assessment of obesity, Hazard obesity, Prevention, Prevention of diabetes mellitus: Problem, Epidemiological factors, Prevention.	
5	1	1	**Prevention of cancer: -** Problem, Cancer distribution, Cancer incidence according gender, Causes of cancer, Control of Cancer, method of cancer diagnosis, Prevention of Types of Cancers: Oral cancer, Cancer of cervix, Cancer of lungs, Cancer of stomach.	
6	1	1	**Prevention of chronic Bronchitis –** Epidemiological studies, Risk factors, Prevention, Prevention of Peptic ulcer: Risk factors, Prevention, measurement.	

7	1	1	**Immunity:-** Definition, Humeral immunity, Cell immunity, Heptanes, Live attenuated vaccine, Killed vaccine, Conjugated vaccine, Immunity and Resistance, Types of Immunity: Natural immunity, Acquired immunity, Active acquired immunity, inactive acquired immunity.	
8	1	1	**Artificial Immunity: -** Inactive immunity, Selection of active or inactive immunity, Mechanism of Immunization, General resistance, Herd immunity.	
9	1	1	**Expanded program on Immunization (EPI):** - TB, Diphtheria, Polio, Measles, Pertusis, Tetanus.	
10	1	1	**Base of Immunological vaccination: -** some of specification of killed and live attenuated vaccines, Adjuvant, Usage of vaccine in specific occasion.	
11	1	1	**HIV/AIDS: -** Immunity after contact, Inactive immunoprophylaxis, Chemoprophylaxis, Examples of Chemoprophylaxis, cold chain of vaccines.	
12	1	1	**Condition of keeping of vaccines:-** Campaign against reservoirs, Mass immunity in Afghanistan, Immunity in Tb, BCG vaccine, Oral Polio vaccine.	
13	1	1	**DPT, Measles vaccine, Tetanus toxoid vaccine:-**	
14	1	1	**Adverse effects following immunization:** Prevention measures for vulnerable.	
15	1	1	**Cold chain system: -** Cold boxes, Vaccine carrier, Vaccine vial monitors, Keeping of vaccine.	
16	1	1	**General Points for vaccination:** Polio vaccine, Tetanus toxoid vaccine, Hepatitis B vaccine, New vaccines.	

Nangarhar medical Faculty

Public Health Department Curriculum for Medical Faculty

Subject : Public Health				
Grade : 4 th			Second Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	1	**Epidemiology of Communicable diseases: -** What is Epidemic, Example from epidemic, Outbreak investigation, Cluster investigation, Goal's of epidemic evaluation, Types of epidemies, Specification of one source epidemy, one source permanent epidemy. Progressive epidemy, New epidemies, Stages of acute epidemy, Geographic epidemic.	
2	1	1	**Communicable diseases: - Measles:-** History, Problem statement, Epidemiological-Determents, (Agent factors, Host factors, Environmental factors), Transmission, incubation period, Clinical features, Prevention of measles, Eradication of measles, Control measure. **Rubella (German-Measles):-** History, Epidemiological-Determents Agent factors, Host factors, Environmental factors), Transmission, incubation period, Clinical features, Diagnosis, Congenital Rubella, Prevention.	
3	1	1	**Mumps: -** Agent factors, Host factors, Environmental factors, Clinical features, Complication, Prevention, control.	
4	1	1	**Polio myelitis: -**Polios myelitis eradication epidemiological Basis, Prevalence and incidence, Epidemiological determents (Agent factors, Host factors, Environmental factors), Mode of Transmission, Clinical features, Prevention, Storage. **Whooping Cough:-** Problem statement, Agent factors, Host factors, Environmental factors, Mode of Transmission, incubation period, Clinical features, Control of Whooping Cough.	
5	1	1	**Diphtheria: -** Problem Statement, Agent factors, Host factors,	

			Environmental factors, Mode of Transmission, Portal of entry, Clinical features, Control of Diphtheria, Diphtheria Immunization.	
6	1	1	**Tetanus:-** Problem statement, Agent factors, Host factors, Environmental factors, Mode of Transmission, Portal of entry, Clinical features, Incubation period, Type of tetanus, Prevention.	
7	1	1	**Epidemic Control of Tuberculosis:-** Problem Statement, World Epidemiological Incidences, Natural History of TB, Host factors, Social factors, Tuberculin test, Mode of Transmission, The control of Tuberculosis, Chemo-prophylaxis, Tuberculosis and HIV, Diagnosis of Tuberculosis and HIV.	
8	1	1	**Epidemiology and Control of Hepatitis: - Hepatitis A:-** Problem Statement, Agent factors, Host factors, Environmental factors, Mode of Transmission, Diagnosis, Prevention and Containment.	
9	1	1	**Hepatitis B): -** Problem Statement, World, Agent factors, Host factors, Environmental factors, Mode of Transmission, Incubation period, Hepatitis B vaccine, Hepatitis B Immunoglobulin, Clinical features, Hepatitis C, Hepatitis E, Hepatitis D, Hepatitis G	
10	1	1	**Rabies:** - Definition, Problem Statement, Geographical distribution, Agent factors, Carrying states, Host factors, Mode of transmission, Incubation period, Pathogenesis, Clinical features, Diagnosis, Treatment, Vaccine for Immunization of man, Post exposure Prophylaxis , Duration of Immunity, Anti Rabies serum, Pre exposure prophylaxis, post exposure Treatment of persons who have vaccinated previously, Rabies in Dog	
11	1	1	**Leprosy: -** Definition, History, Problem Statement, World, Agent factors, Host factors, Environmental factors, Social pathology, Mode of Transmission, Incubation period. Classification, Diagnosis, Leprosy Control, Recommended regimes of Chemotherapy, Duration of Treatment, Leprosy Control or Eradication	
12	1	1	**Brucellosis:-** Definition, Problem Statement, Agent factors, Host factors, Environmental factors, Mode of Transmission, Incubation period, Pattern of disease, Control of Brucellosis	
13	1	1	**Malaria:-**History, Problem Statement World, Agent	

			factors, Reservoir of Infection, Period of Communicability, Host factors, Environmental factors, Vector of Malaria, Mode of Transmission, Clinical feature, Measurement of Malaria, Control of Malaria, Vector Control strategies	
14	1	1	**AIDS:-** Problem statement World, Epidemiological features, Agent and Host factors, Immunology, Mode of Transmission, Incubation period, Clinical features, Diagnosis of AIDS, Control of AIDS, Prevention, Antiretroviral treatment, Combination therapy.	
15	1	1	**Acute Diarrheal Diseases:** -Problem statement, Agent factors, Host factors, Environmental factors, Mode of Transmission, Control of diarrheal diseases	
16	1	1	**Sever Acute Respiratory Syndrome:-** Problem statement, Mode of Transmission, Incubation period, Case definition, Epidemiological aspects, Prevention, Treatment	

Nangarhar medical Faculty

Anesthesia Department Curriculum for Medical Faculty

Subject : Anesthesia				
Grade : 4 th			Second Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	1	**General Information about anesthesia: -** Definition of anesthesia, analgesia, narcosis, General information about anesthesia	
2	1	1	**History of anesthesia:-** overview on anesthesia history, use of different type of anesthetics, curares, analgesics and anesthesia related drugs in different period of time	
3	1	1	**Preanesthesia and preoperative evaluation of the patient: -** evaluation of the patient general condition, discussion regarding to the risk of anesthesia and operation, choosing of anesthesia technique and drugs **Ten golden rule of anesthesia**	
4	1	1	**Patient physical status classification and the A.S.A scoring system: -**classification of the patient physical status based on American association of anesthesia	
5	1	1	**Pre medication: -** definition of premedication, goals and use of different drugs in premedication	
6	1	1	**Indo tracheal Intubation:-** definition, indication, equipment, techniques, problems, complication, extubation	
7	1	1	**Methods & Periods general anesthesia:-** methods (general anesthesia, Local regional anesthesia, acupunctures anesthesia, periods (analgesia, excitation, surgical toxic)	
8	1	1	**Inhalation Anesthesia:-** (either, nitrous oxide, halothane):- pharmacologic properties, effects of body different organs, Side effects, complication	
9	1	1	**IV anesthetics,** Ketamin, Thiopental, Propofol, pharmacologic properties, clinical usage, effects on body different organs, side effects, complications,	

			contraindication	
10	1	1	**Neuromuscular blockers: -** Muscle relaxant: definition, classification, indications, contraindications, antidotes	
11	1	1	**Spinal anesthesia:** - Definition, anatomy and physiology of the vertebral column, equipment, techniques, indications, side effects, contraindications	
12	1	1	**Neuroleptics and analgesia:-** ways if usage, goals	
13	1	1	**Intra venous fluid therapy:-**etiology of fluids and electrolytes imbalance, replacement of the fluids and electrolytes with crystalloid and colloid fluids	
14	1	1	**Blood transfusion:-** definition, basic rules of blood transfusion indications, types of blood transfusion, complications	
15	1	1	**Cardiopulmonary resuscitation:** -definition of cardiac arrest, etiology and types, sign and symptoms, prevention, treatment, complications	
16	1	1	**Acute Respiratory failure:-** Respiratory physiology, etiology of the respiratory failure, sign, symptoms and diagnosis, prevention, reanimation and treatment	

Nangarhar medical Faculty

Dermatology Department Curriculum for Medical Faculty

Subject : Dermatology				
Grade : 4 th			Second Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	2	1	**Anatomy of skin:** Structure of epidermis, dermis and hypodermis, Vessels, Nerve and corpuscles, Sweats & Sebaceous glands, hairs and nails. **Physiology of skin: -** Protective function, heat regulation function, secretion and excretion, gaseous, exchange through skin, Sense organ, metabolic function, storage function and Absorption.	
			Symptoms and Signs of skin disease: subjective symptoms (Pruritis) Objective signs (Primary and secondary lesions)	
2	2	1	**Histopathology terms:** Histopathology of the skin disease. **Essential of local treatment:** Solution, lotion, ointment, cream, paste and powder (method of tropical application), occlusive bandage, intra lesional injection…	
			Eczema and dermatitis: Etiologic classification, histopathology, clinical study (Atrophic Dermatitis, Seborrhic dermatitis, Nummular eczema).	
3	2	1	**Varicose,** Absorption, infective Dermatitis, Contact dermatitis, Photo dermatitis, Pompholyx and pityriasis alba, Diagnosis and differential diagnosis, Treatment: general measures, specific treatment.	
			Allergy: Antigen and antibody, allergic reactions, shock anaphylactic, non allergic reactions (terms) **Urticaria**: Definition and Etiology, clinical study, diagnosis and treatment.	
4	2	1	**Pyoderma:** Etiology, Superficial infection (impetigo, intertrigo, perleche and paronychia), Scabies: Etiology and pathogenesis, clinical study, course and complication, diagnosis and treatment.	
			Deep infection: Furunculosis and carbunculosis, sycosis vulgaris, pseudo furunculosis, hydra adenitis	

			suppurativa, ecthyma, pyoderma chancrioform and pyoderma ulcero vegetant	
5	2	1	**Dermatophytosis:** Classification, tinea capitis, tinea faciei, tinea barbea, tinea corporis, tinea cruris, tinea axillaries, tinea manum and tinea pedis. **Tinea Ungium, TV & Candidiasis:** Onychomycosis (tinea ungium), Pityriasis versicolor (TV), candidiasis (Oral candidiasis, Candida balanitis, flexural candidiasis, napkin candidiasis, paronychia candidiasis), diagnosis of fungus (clinical, laboratory), treatment and fungal infections.	
6	2	1	**Cutaneos Leishmaniasis:** Etiology and epidemiology, clinic and diagnosis criteria, clinical forms, course and treatment. **Anomalies of Pigmentation:** Melanoderma (etiology and pathogenesis), Cholasma (etiology, clinic and treatment), Ephelides (etiology, clinic and treatment), Lukoderma (classification), Vitiligo (Definition, etiology, pathogenesis, epidemiology, clinical study, clinical forms, differential diagnosis and treatment.	
7	2	1	**Tumor of the skin:** classification, BCC (clinical forms, diagnosis, treatment), SCC (definition, etiology, clinical study, course, diagnosis and treatment. **Malignant Melanoma:** (etiology, clinical forms, histopathology, diagnosis, course and treatment)m Bowen's disease (etiology, pathogenesis, clinical study, histopathology and treatment), Paget disease (Mammary pagets and Extra mammary pagets)	
8	2	1	**Bullous disease:** Introduction, Pemphigus (pemphigus vulgaris, pemphigus vegetans, pemphigus foliaceous, pemphigus erythematosus, differential diagnosis and treatment) **Bullous Pemphigoid**: Etiology, pathogenesis, clinical study and treatment. **Erythma mulfirmis:** Etiology, clinical study, clinical forms and treatment. **Duhring:** Etiology, clinical study, history, diagnosis and treatment	
9	2	1	**TB of the skin:** Classification of TB cutis, Tuberculosis Chancre, Lupus vulgaris (etiology, clinic, diagnosis, complication and treatment. **Scrofuloderma: -** (etiology, clinic, course and	

			treatment), TB Cutis Verrucosa (clinic, diagnosis and treatment).	
			Scabies: (Etiology and pathogenesis, clinical study, course and complication, diagnosis and treatment) **Pediculosis:** (Pediculosis capitis, Pediculosis corporis, Pediculosis pubis)	
10	2	1	**Viral skin infection: Definition** and classification of the skin viral disease, Herpes simplex (etiology, clinic and treatment), Herpes zoster (etiology, clinic forms and treatment).	
			Warts and Moluscum contagiosa: Warts (etiology, pathogenesis, clinical forms, diagnosis and treatment) Molluscum contagiosum (etiology, pathogenesis, clinical study, clinical forms, diagnosis and treatment)	
11	2	1	**Lichen planus** (etiology, histopathology, clinical study, diagnosis, differential diagnosis, clinical forms and treatment) Pityriasis rosea (definition, etiology, clinical study, course, differential diagnosis and treatment)	
			Psoriasis: Etiology, pathology, histopathology, clinical study, clinical forms, diagnosis, differential diagnosis and treatment	
12	2	1	**DLE and Rosacea:** DLE (etiology, pathogenesis, clinical forms, differential diagnosis and treatment), Rosacea (Etiology, clinical study, differential diagnosis and treatment)	
			Acne vulgaris: Etiology, pathogenesis, clinic, clinical forms, differential diagnosis and treatment.	
13	2	1	**Leprosy:** Classification, Clinical forms, tuberculoid, borderline, lepromatous, deformities, reaction, diagnosis, differential diagnosis and treatment.	
14	2	1	**Disease of Hair:** Classification, alopecia, hypertrichosis **Disease of the Nail:** Etiology, cutaneous nail disorders, special terms of nail dystrophy.	
15	2	1	**STD and Syphilis:** Classification of STD, Syphilis (History, Primary syphilis, secondary syphilis	
			Latent and Tertiary syphilis: Syphilis in HIV disease, differential diagnosis, serology of syphilis and management of syphilis.	

16	2	1	**Chancroid and Lymphogranuloma Verneum:** Chancroid (etiology, clinical study, clinical forms, diagnosis and treatment), Lymphogrnuloma Venereum (etiology, Pathogenesis, epidemiology, symptoms diagnosis and treatment. **Gonorrhea:- Definition,** Acute gonorrhea (in men and women) Chronic gonorrhea (in men and women) , complication of gonorrhea, treatment of gonorrhea.	

Nangarhar medical Faculty

GRADE 5 TH

Nangarhar medical Faculty

Internal Medicine Department Curriculum for Medical Faculty

Subject : Medicine				
Grade : 5 th			First Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	1	**Diabetes Mellitus: -** Definition, Classification, pathogenesis (Type 1 & 2), Malnutrition related DM, GDM, Clinical features, Lab, DDx	
2	1	1	**Diabetes Mellitus:-** Treatment, chronic Complications of DM, Acute complication (DKA, NKHS)	
3	1	1	**Thyrotoxicosis: -** Definition, Etiology, clinical feature, Diagnosis, Lab, DDx, Treatment.	
4	1	1	**Hypothyroidism (Myxodema): -**Definition, Etiology & Pathogenesis, clinical feature, DDx, Complication, Treatment.	
5	1	1	**Cushing Syndrome: -** definition, Etiology, Clinical feature, Lab, DDx, Treatment.	
6	1	1	**Addison's disease: -** Definition, Etiology, Clinical feature, Lab, DDx, Treatment. **Adrenal Crisis:-** Definition, Etiology, Clinical Features, DDx, Treatment.	
7	1	1	**Pheochromocytoma:-** Definition, Clinical feature, Adverse Drug Reactions, Diagnosis, DDx, Treatment. **Acromegaly:-** Definition, Pathophysiology, Etiology, Clinical feature, Lab, DDx, Treatment.	
8	1	1	**Diabetes Insipidus:-** Definition, Pathophysiology, Etiology, Clinical feature, Lab, DDx, Treatment	
9	1	1	**Obesity:-** Definition, Etiology, Clinical feature, Complication of obesity, Treatment.	
10	1	1	**Rheumatoid Arthritis: -** Definition, Pathogenesis,	

			Clinical feature, Lab, Course & Prognosis, DDx, Treatment.	
11	1	1	**Gout: -** Definition, Pathogenesis, Clinical feature, Lab, Prevention & Treatment.	
12	1	1	**Systemic Lupus Erythematosis:-** Definition & Prevalence, Pathogenesis, Etiology, Clinical feature, Lab, Diagnosis & DDx, Treatment	
13	1	1	**Degenerative joint Disease (Osteoarthritis):-** Definition, Etiology & Epidemiology, Pathogenesis, Clinical feature, Treatment.	
14	1	1	**Pain Syndrome:-** Cervicobrachial pain syndrome, Chronic Musculoskeletal strain, Thoracic outlet Syndrome, Arthritis Disorder & Extra thoracic syndrome, Low Back pain, Fibromyalgia.	
15	1	1	**Metabolic Bone disease & Osteoporosis: -** definition, Etiology, Pathogenesis, Clinical feature, Diagnosis, DDx, Treatment.	
16	1	1	**Osteomalacia: -** Definition, Etiology, Clinical feature, Treatment.	

Nangarhar medical Faculty

Internal Medicine Department Curriculum for Medical Faculty

Subject : Medicine				
Grade : 5 th			Second Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	1	**Anemia: -** Definition, Sign and Symptoms, Approach to the patient with anemia, Laboratory investigation, Classification of the anemia. **Iron deficiency anemia: -** Definition, Etiology, Clinical features, Laboratory investigation, Diagnosis, Differential Diagnosis, Treatment.	
2	1	1	**Megaloblastic Anemia: - Cobalamine:-** Definition, Clinical features, Etiology & Pathogenesis, Diagnosis, Differential diagnosis. **Folic acid: -** Etiology & Pathogenesis, DDx, Lab., Treatment.	
3	1	1	**Hemolytic Anemia: -** Definition, Classification, Laboratory investigation. **Auto Immune Hemolytic anemia:** Pathogenesis, Etiology, Clinical Findings, Diagnosis, Laboratory Investigations, Treatment, Prognosis. **Cold Agglutinin Disease: -** Clinical Features, Lab investigation, Treatment.	
4	1	1	**Bone Marrow Failure: -**Definition, Classification **Aplastic Anemia:-** Definition, Epidemiology, Etiology, Pathogenesis, Clinical Finding, Laboratory Investigation, Diagnosis, Treatment, Prognosis.	
5	1	1	**Polycythemia: -** definition, Etiology, **Polycythemia Vera: -** Etiology, Clinical features, Laboratory investigation, Diagnosis & Differential diagnosis, Treatment, Prognosis.	
6	1	1	**Acute Leukemia: -** Definition, Pathophysiology **Acute Lymphoblastic Leukemia (ALL):-** Definition, Etiology, Classification, Clinical	

			Features, Laboratory investigation, Treatment. **Acute Myeloid Leukemia (AML):-** Incidence, Etiology, Classification, clinical featured, Laboratory investigation, Prognosis, Treatment.	
7	1	1	**Chronic Leukemia:- Chronic Myeloid Leukemia (CML):-** Definition, Etiology, Clinical feature, Lab., Diagnosis, Treatment. **Chronic Lymphocytic Leukemia (CLL):-** Etiology, Epidemiology, Clinical features, Lab., Diagnosis, Treatment.	
8	1	1	**Hodgkin Disease:-** Etiology, Epidemiology, clinical features, Pathology, Classification, Diagnosis, DDx, Treatment	
9	1	1	**Neutropenia: -** Definition, Etiology, Lab., Diagnosis, Treatment. **Idiopathic Thrombocytopenic Purpura (ITP):-** Definition, Etiology & pathogenesis, Clinical features, Lab., DDx, Treatment.	
10	1	1	**Disseminated Intravascular Coagulation (DIC): -** Definition, Etiology & Pathogenesis, Clinical features (bleeding, thrombosis, Thromboembolism, shock, renal, liver and CNS dysfunction), Lab., Acute DIC, Chronic DIC, Treatment.	
11	1	1	**Blood Transfusion:** - Erythrocyte, Antigen and Antibodies, Definition, Clinical use of erythrocyte and whole blood, indication of transfusion therapy, Erythrocyte preparation packed red blood cell, Leukocyte reduced red cell, Washed red blood cell, Frozen red blood cell, indication for the granulocyte transfusion, Clinical use of platelets, indication for platelet transfusion, Complication of the blood transfusion, Clinical use of plasma and plasma factors.	
12	1	1	**Disorders of the Immune System:-** General consideration, Joint signs of the immune system deficiency, Difference between T and B cell, Humoral Immunology, cellular immunology, Classification.	
13	1	1	**Acquired Immunodeficiency Syndrome (AIDS) :-** Definition, Origin of the HIV, Etiology and Pathogenesis (Pathogenesis of the HIV infection), Diagnosis of the HIV infection, Lab exam, Course and Prognosis.	
14	1	1	**AIDS:-** Hematological abnormalities, Anemia in HIV infection, Thrombocytopenia in HIV infection,	

			Systemic organ abnormalities, Treatment, Prophylaxis.	
15	1	1	**Vitamin B1 Deficiency: -**Definition, Absorption & Metabolism, Sources, Clinical feature, Diagnosis, Treatment, Prevention. **Niacin (Nicotinic acid) deficiency:-** Absorption & Metabolism, Sources, Clinical Feature, Diagnosis, Treatment, Toxicity.	
16	1	1	**Vitamin B6 (Pyridoxine) deficiency:** - Absorption & Metabolism, Clinical feature, Diagnosis, Lab., Treatment. **Vitamin C deficiency:** - Absorption, Sources & Requirements, Symptoms & Signs, Diagnosis & Treatment, Toxicity.	

Nangarhar medical Faculty

Surgery Department Curriculum for Medical Faculty

Subject : Surgery				
Grade : 5 th			First Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	2	2	**Thyroid diseases** Surgical anatomy, Physiology, Classification, History and Physical examination.	
			Thyroid diseases Test of thyroid function, Goiter, definition, Classification, Simple goiter, clinical types and thyroid cyst.	
2	2	2	Thyroid disease: Thyrotoxicosis, Clinical types, Symptoms and Signs, Diagnosis, Treatment, Post Operative complication.	
			Thyroid Disease: Thyroid tumors, Etiology, clinical feature, diagnosis, treatment, additional measures, Tyroiditis.	
3	2	2	**Breast diseases: -** Surgical anatomy, physiology, Symptoms, physical examination, lab, investigation.	
			Breast diseases: Breast injury, Acute and sub Acute infections, Chronic infection, Clinical feature, treatment.	
4	2	2	**Breast disease:-** Breast Cyst, Breast Tumors, pathology, Spread of breast tumors.	
			Breast disease:- Clinical feature of breast carcinoma, staging of breast cancer, prognosis and treatment.	
5	2	2	**Thoracic injuries & trauma,** Rib fracture, Sternum, fracture, Flail chest.	
			Thoracic injuries & trauma: Pneumothorax, Hemothorax, Cardiac tamponad, Mediastinal emphysema, Thoracotomy.	
6	2	2	**Diaphragmatic Hernia:** Hernia of Morgagni, Hernia of Bochadalek, Diaphragmatic eventration, Hiatus hernia, clinical feature, complication of	

			hernia. **Diaphragmatic Hernia:** Treatment of sliding hiatus hernia, Treatment of Reflux esphopagitis, Rolling hernia, Mixed hernia.	
7	2	2	**Mediastinal diseases:-** Anatomy, Mediastinitis, Clinical feature, treatment. **Mediastinal diseases:** - Cyst and Tumor of mediastinum, symptoms of mediastinal masses.	
8	2	2	**Esophageal disease: -** Surgical anatomy and physiology, lab investigations, Foreign bodies & injury of esophagus. **Esophageal diseases: -** Corrosive esophagitis, Esophageal diverticula;s, Achalasia.	
9	2	2	**Esophageal diseases:-** Benign stricture & Tumors of esophagus, esophageal carcinoma, pathology, spread of tumors, clinical feature. **Esophageal diseases:-** Treatment, curative treatment, palliative treatment, terminal complication of esophageal carcinoma.	
10	2	2	**Lungs & Pleural diseases: -** Surgical anatomy, inhaled foreign bodies, Lung abscess, classification, pathology, clinical feature, complication, diagnosis, treatment. **Lung and Pleural diseases: -** branchiectasis, etiology, pathology, clinical feature, diagnosis, treatment, Lung cyst.	
11	2	2	**Lung and Pleural diseases:** - Lung TB, pathology, clinical feature, indication of resection, Broncholeuarl fistula, Pleural empyema. **Lung and Pleural diseases: -** Lung TB, pathology, clinical feature, indication of resection, Broncholeuarl fistula, Pleural empyema.	
12	2	2	**Lung and Pleural diseases: -** Lung and Pleural tumors, Clinical feature, treatment, complications of lung resection. **Lung and Pleural diseases: -** Lung and Pleural tumors, Clinical feature, treatment, complications of lung resection.	
13	2	2	**Heart diseases:-** Anatomy and Physiology, Valvular heart diseases, Mitral valve diseases, Aortic Valve diseases, Tricuspid valve diseases, Pulmonary valve diseases, infective endocarditis. **Heart diseases:-** Congenital Heart diseases,	

			cyanotic heart diseases, cyanotic heart diseases.	
14	2	2	**Heart diseases: -** Ischemic heart diseases, pathophysiology, lab investigation, indication of operation.	
			Heart diseases: - Thoracic Aortic aneurysm, Aortic dissection, treatment.	
15	2	2	**Arterial diseases: -** Arterial stenosis, etiology. Symptoms and signs, treatment, Acute arterial occlusion due to embolism and trauma.	
			Arterial diseases: - Arterial dilatation, abdominal aorta aneurysm, Peripheral aneurysm, AV Fistula, Arteritis, Vasospastic condition.	
16	2	2	**Venous Diseases:-** pathophsiology, lav., investigation, Deep vein Thrombosis, Superficial Vein Thrombosis.	
			Venous diseases:- Varicose vein, symptoms, diagnostic test, differential diagnosis, treatment, complication.	

Nangarhar medical Faculty

Pediatric Department Curriculum for Medical Faculty

Subject : Pediatric Medicine				
Grade : 5 th			First Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	1	**History taking:** - Differential between child and adult physical exam.	
2	1	1	**Growth and development:-** Fetal growth and Development:-Definition, Extra Uterine life, Assessment of growth and development.	
3	1	1	**Nutrition: -** Nutrition requirements, water, Protein, Carbohydrate.	
4	1	1	**Feeding: -**Breast feeding, Advantages.	
5	1	1	**Weaning and trace elements**	
6	1	1	**Malnutrition:** - (Definition, Etiophathogenesis, Clinical feature, Lab., exam, Diagnosis, D/Dx, Complication, Prevention, Treatment and Prognosis), Protein energy malnutrition, classification, marasmus and Kwashiorkor.	
7	1	1	**Management of severe malnutrition**	
8	1	1	**Vitamin C, D deficiency**	
9	1	1	**Vitamin (B1, B6,B12, Folic acid), Vit K**	
10	1	1	**Vitamin A deficiency** (definition, Etiopathogenesis, clinical feature, Lab exam, Diagnosis, D/Dx, Complication, Prevention, Treatment and Prognosis)	
11	1	1	**Water and Electrolyte Disturbances:-** Hyponatremia, Hypernatremia, Hypokalemi, Hypernatremia, Disturbances in acid base status, Fluid therapy determinate of requirements, Manteca therapy and Deficit therapy.	
12	1	1	**Acute Watery Diarrhea & Abdominal pain, Constipation:-** Definition, Causes, pathophysiology, clinical feature, treatment.	
13	1	1	**AGE, Persistent and Recurrent Diarrhea**	
14	1	1	**Dehydration:-** (Definition, Etiopathogenesis, Clinical feature, Classification, Lab exam,	

			Diagnosis, D/Dx, Complication, Prevention, Treatment and Prognosis)	
15	1	1	**P**neumonia (IMCI) and Broncholitis (Definition, Etiopathogenesis, Clinical feature, Classification, Lab exam, Diagnosis, D/Dx, Complication, Prevention, Treatment and Prognosis.	
16	1	1	**Down Syndrome and mental retardation: -** Definition, Etiopathogenesis, Clinical feature, Lab., exam, Diagnosis, D/Dx, Complication, Prevention and Prognosis.	

Nangarhar medical Faculty

Pediatric Department Curriculum for Medical Faculty

Subject : Pediatric Medicine				
Grade : 5 th			Second Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	1	**Neonatology: -** Definition Normal full term newborn, Premature, Neonatal reflexes sandsment of newborn infant.	
2	1	1	**Delivery room emergencies:-** and Resuscitation, Birth asphyxia and distress (Definition, Risk factors, physiopathology, Clinic, Diagnosis and Management.	
3	1	1	**Prenatal asphyxia: -** Equipments if resuscitation	
4	1	1	**Delivery trauma,** Cranial injury, Intracranial hemorrhage, Spin and spinal cord injury, Viscera injury, Fractures, Extremities.	
5	1	1	**Jaundice** and Hyperbilirobinemia in newborn, General consideration, Physiologic jaundice.	
6	1	1	**Jaundice associated** with breast feeding neonatal hepatitis persistent.	
7	1	1	**Kernictures,** treatment, Phototherapy, Exchange transfusion,	
8	1	1	**Apnea and transient apnea,** Neonatal sepsis, management, Necrotizing enterocolitis.	
9	1	1	**Nutrition of the Newborn baby**	
10	1	1	**Prematurity** (general problems, risk factors, clinical feature and management, assessment of gestational age)	
11	1	1	**Neonatal hypoglycemia,** hyperglycemia, hypo and hypernatermai.	
12	1	1	**Respiratory distress synfrome (HMD):-** Definition, pathophysiology, General consideration, Treatment.	
13	1	1	**Neonatal seizures:-** Definition, Etiopathogenesis, Clinical feature, Lab., exam, Diagnosis, D/Dx, Treatment, Complication, Prevention and Prognosis.	
14	1	1	**TORCH** infections	
15	1	1	**IDA, Thalassemia:-** Definition, Etiopathogenesis,	

			Clinical feature and Lab., exam, Diagnosis, D/Dx, Treatment, Complication, Prevention and Prognosis	
16	1	1	**UTI and Nephrotic Syndrome: -** Definition, Etiopathogenesis, Clinical feature, Lab., exam, Diagnosis, D/Dx, Treatment, Complication, Prevention and Prognosis.	
17	1	1	**Measles:** Definition, Etiopathogenesis, Clinical feature, Lab. Exam, Diagnosis, D/Dx, Treatment, Complication, Prevention and Prognosis	
18	1	1	**Rubella:** Definition, Etiopathogenesis, Clinical feature, Lab. Exam, Diagnosis, D/Dx, Treatment, Complication, Prevention and Prognosis	
19	1	1	**Mumps:** Definition, Etiopathogenesis, Clinical feature, Lab. Exam, Diagnosis, D/Dx, Treatment, Complication, Prevention and Prognosis	
20	1	1	**Pertusis:** Definition, Etiopathogenesis, Clinical feature, Lab. Exam, Diagnosis, D/Dx, Treatment, Complication, Prevention and Prognosis	
21	1	1	**Scarlet fever:** Definition, Etiopathogenesis, Clinical feature, Lab. Exam, Diagnosis, D/Dx, Treatment, Complication, Prevention and Prognosis	
22	1	1	**Poliomelitis:** Definition, Etiopathogenesis, Clinical feature, Lab. Exam, Diagnosis, D/Dx, Treatment, Complication, Prevention and Prognosis	
23	1	1	**Chicken pox:** Definition, Etiopathogenesis, Clinical feature, Lab. Exam, Diagnosis, D/Dx, Treatment, Complication, Prevention and Prognosis	
24	1	1	**Typhoid fever:** Definition, Etiopathogenesis, Clinical feature, Lab. Exam, Diagnosis, D/Dx, Treatment, Complication, Prevention and Prognosis	
25	1	1	**Viral Hepatitis (A,B):** Definition, Etiopathogenesis, Clinical feature, Lab. Exam, Diagnosis, D/Dx, Treatment, Complication, Prevention and Prognosis	
26	1	1	**Viral Hepatitis (C,D,E,G):** Definition, Etiopathogenesis, Clinical feature, Lab. Exam, Diagnosis, D/Dx, Treatment, Complication,	

			Prevention and Prognosis	
27	1	1	**Cholera:** Definition, Etiopathogenesis, Clinical feature, Lab. Exam, Diagnosis, D/Dx, Treatment, Complication, Prevention and Prognosis	
28	1	1	**Sepsis:** Definition, Etiopathogenesis, Clinical feature, Lab. Exam, Diagnosis, D/Dx, Treatment, Complication, Prevention and Prognosis	
29	1	1	**Encephalitis & Encephalopathy:** Definition, Etiopathogenesis, Clinical feature, Lab. Exam, Diagnosis, D/Dx, Treatment, Complication, Prevention and Prognosis	
30	1	1	**Child hood pyogenic meningitis (ABM):** Definition, Etiopathogenesis, Clinical feature, Lab. Exam, Diagnosis, D/Dx, Treatment, Complication, Prevention and Prognosis	
31	1	1	**Shigellosis (Bacillary dysentery):** Definition, Etiopathogenesis, Clinical feature, Lab. Exam, Diagnosis, D/Dx, Treatment, Complication, Prevention and Prognosis	
32	1	1	**Tetanus:** Definition, Etiopathogenesis, Clinical feature, Lab. Exam, Diagnosis, D/Dx, Treatment, Complication, Prevention and Prognosis	

Nangarhar medical Faculty

Obstetrics & Gynecology Department Curriculum for Medical Faculty

Subject : Gynecology				
Grade : 5 th			First Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	1	**Gynecological Examination: -** A: - General pelvic examination: Extra Genital organ inspection, Speculum examination, Vagino-cervical cystoscopy. B:-Inspection of the cervix: manual pelvis examination, palpation of structure of introits, palpation of cervix. C: - Bimanual Examination: palpation of uterus, palpation of ofadenexa. D: - Retrovaginal Examination, other procedure, Cervical biopsy, Endometrial biopsy.	
2	1	1	**Gynecological Examination: -** Conization, endometrial biopsy, Coloscopy, Culdo scopy, hysteroscopy, Laparoscopy, HSG, Culdocentesis, U/S.	
3	1	1	**Amenorrhea: -** Primary, secondary, management	
4	1	1	**Dysmenorrhea:-** Primary, etiology, Secondary, etiology (uterine cause and extra uterine cause), treatment.	
5	1	1	**PMS (Premenstrual Syndrome):-** oligomenorrhea, poly menorrhea, Menorrhagia, Metrorragia, Hypo and Hyper menorrhea.	
6	1	1	**Vulvovaginitis: -** Classification, Clinical finding, Laboratory examination, Complication, Prevention, Treatment.	
7	1	1	**Bartholin Cyst: -** Bartholin abscess, Clinical finding, Complication, Prevention, Treatment.	
8	1	1	**Pelvic Relaxation:** - Cystocele, urethrocele, rectocele, enterocele, Clinical finding, Sign and Symptom, Special examinations, Complication, Differential diagnosis, Prevention, Treatment.	

9	1	1	**Cervicitis:-** Etiology & Predisposing factors, Physiopathology, Clinical finding, Complication, Prevention, Treatment.	
10	1	1	**Cervical polyp:-** Etiology, Clinical finding, Complication, Treatment.	
11	1	1	**Cervical neoplasm and carcinoma:** - Etiology, pathology, General information, Clinical finding, staging, Laboratory examination, Shiller test, Vaginal cytology, Complication, Differential diagnosis, prevention, Treatment.	
12	1	1	**Congenital uterine anomaly: -** General information, Classification, Clinical finding, Complication, Differential diagnosis, Treatment. Prognosis.	
13	1	1	**Malposition of Uterus:-** General information, Clinical finding, Complication, Differential diagnosis, Treatment, Prognosis.	
14	1	1	**Uterine Prolaps:** - General information, Clinical finding, Complication, Differential diagnosis, Treatment, Prognosis.	
15	1	1	**Stress urine incontinence & Urge Urine Incontinence: -** (Definition, Etiology, Urodynamic test, Management).	
16	1	1	**Fibroid (Lieomyoma): -** General information, Benign changes, Clinical finding, Complication, Treatment (general, surgical), prognosis.	

Nangarhar medical Faculty

Obstetrics & Gynecology Department Curriculum for Medical Faculty

Subject : Gynecology				
Grade : 5 th			Second Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	1	**Endometritis: -** A: - Acute endometritis: Etiology, Clinical finding, Treatment. B:-Chronic Endometritis: Etiology, Clinical finding, Treatment. C: - Atrophic endometritis: Etiology, Clinical finding, Treatment D: - Pyometritis: Etiology, Clinical finding, Treatment	
2	1	1	**Metritis: -** Acute metritis, Chronic metritis, Salpango-oopharitis, Acute salpangitis: pathology, sign and symptoms, diagnosis, Differential diagnosis, Treatment Chronic Salphangitis: Clinical finding, Treatment.	
3	1	1	**Endometriosis: -** General information, Staging, Clinical finding, Complication, Differential diagnosis, Prevention, Treatment.	
4	1	1	**Endometrial Carcinoma:-** Etiology, Classification, Clinical finding, Complication, Differential diagnosis, Prevention, Treatment.	
5	1	1	**Dysfunctional Uterine Bleeding (BUB):-** General information, UB without ovulation, DUB without ovulation, Differential diagnosis, Assessment, Treatment.	
6	1	1	**Benign Ovarian diseases: -** Functional ovarian cyst, Benign ovarian neoplasm's, Epithelial cell neoplasm, Germ cell neoplasm, Stormal cell neoplasm	
7	1	1	**Malignant ovarian neoplasm's: -** Pathogenesis, Diagnosis, Histological classification, Staging, management.	

8	1	1	**Infertility: -** Definition, Etiology, Male causes, Female causes.	
9	1	1	**Infertility (continue):-** Diagnosis and Investigations ,History, Semen, analysis, Ovulation test, Potency test, Histological and biopsy, FSH and LH level, Treatment.	
10	1	1	**Contraceptive:-** Hormonal method, Mechanical method, Surgical method, bilateral tubule legations, Vasectomy.	
11	1	1	**Menopause and climacteric: -** General information, Clinical finding, Hot flash, Osteoporosis, Urogenital tract, Cardiovascular treatment.	
12	1	1	**PCOS:-** General Information, Hormonal changes, Signs and symptoms, Treatment Ovulation cycle Hirsutism and virilization	
13	1	1	**Gynecological Procedures: -** Dilatation & curettage, general information, indication, procedure, complication.	
14	1	1	**Gynecological Procedures: -** Hysterectomy: general information, Indication, procedure, complication	
15	1	1	**DCOS:-** Definition, Hormonal changes, Sign & Symptoms.	
16	1	1	**Anovalatory Cycle: -** Diagnosis, Management.	

Nangarhar medical Faculty

Orthopedic & Traumatology Department Curriculum for Medical Faculty

Subject : Traumatology				
Grade : 5 th			First Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	1	**History of orthopedic &** Traumatology, Physical examination, Traction & Plaster, Acute and chronic osteomylitis	
2	1	1	**Bone and Joint TB Osteoarthritis** Upper limb Trauma, Injury of the shoulder, Clavicula fracture & dislocation, Scapula fracture.	
3	1	1	**Sternum fracture: -** Ribs fracture	
4	1	1	**Acromioclavicular joint dislocation,** Sternoclavicular joint dislocation, Anterior dislocation of the shoulder joint	
5	1	1	**Neck Humerus fracture** Shaft humerus fractures, supracondylars Humerus fractures.	
6	1	1	**Humerus condylar fractures** Elbow joint dislocation, Upper part Radius Ulna fracture.	
7	1	1	**Olicranon fracture,** Montaeggia fracture Galezzia fracture, Fracture of the distal Radius	
8	1	1	**Shaft Radius and Ulna fracture,** Lower part Radius and ulna fractures, colle's fracture and juvenile Cole's fracture.	
9	1	1	**Fracture Radial Styloid (Shauffers fracture),** Barton's fracture, Carpal Injury, Scapoid fracture.	
10	1	1	**Triquetum, Hamat lunette and Trapezium** Fracture, Metacarpus fractures, Bennell fracture, Shaft metacarpus fractures.	
11	1	1	**Fractures of Phalanges,** Spine trauma, Cervical spine injuries, Dorsolumbal injuries, Spine trauma with nerve injuries.	
12	1	1	**Pelvic fracture, Acetabulom** fracture, Sacrum and Coccyges fracture	
13	1	1	**Hip joint trauma, posterior** dislocation of Hip joint, Anterior dislocation of Hip joint, Neck femur fracture of adult.	

14	1	1	**Intertrochanteric and Subtrochanteric fracture,** Shaft Femur fracture, Supra condylar fracture & Patella fracture	
15	1	1	**Tibia and Fibula fracture &** Shaft Tibia and Fibula fracture.	
16	1	1	**Ankle joint fracture,** Medical Maleol fracture, Lateral Maleol fracture, Bimaleol fracture, foot trauma fracture of the Calcaneus's & Talus.	

Nangarhar medical Faculty

Orthopedic & Traumatology Department Curriculum for Medical Faculty

Subject : Orthopedic				
Grade : 5 th			**Second Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	1	1	**Deformity of the foot, Club** foot, Flat foot	
2	1	1	**Hallux rigdus,** Hallux valgus, Claw Toecarps cavus.	
3	1	1	**Cerebral Palsy**	
4	1	1	**Poliomyelitis**	
5	1	1	**Spinal cord injury** Nerve Root Compression, Peripheral nerve injury	
6	1	1	**Plexus Brachialis Damage** Median nerve damage, Ulnar nerve damage, Radial nerve damage	
7	1	1	**Sciatic nerve damage,** Common Perennial nerve damage, Obstetric paralysis or Birth paralysis	
8	1	1	**Peripheral neuropathy,** Guillanbarre syndrome, Charcot Marie tooth Disease	
9	1	1	**Muscular Dystrophy,** Paseudohypertrophic muscular dystrophy	
10	1	1	**Arthrogripposis multiplex congenital**	
11	1	1	**Amputation**	
12	1	1	**Bone Tumor, Osteoma**	
13	1	1	**Osteoblastoma, Chondroma**	
14	1	1	**Aneurismal bone Cyst,** Hemangioma, Nonossifying Fibroma, Solitary bone Cyst	
15	1	1	**Giant cell Tumor,** Osteo sarcoma, Eving Tumor	
16	1	1	**Plasma cell Myeloma,** Multiple myeloma	

Nangarhar medical Faculty

ENT Department Curriculum for Medical Faculty

Subject : ENT				
Grade : 5 th			First Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	2	1	**Anatomy of the Ear:-** Auricle, External auditory canal	
			Anatomy of the Ear:-Middle ear, Inner ear	
2	2	1	**Physiology of the ear** Mechanism of hearing and sound transmission Symptomology of aural diseases (Otalgia, Otorrhagia, irritation, Otorrhea, Tinnitus)	
			Deafness:- Definition, Types (Conductive, Sensori neural, Mixed, Hysterical, Malingering)	
3	2	1	**Diseases of External Ear: -** Diseases of the pinna	
			Diseases of External auditory canal	
4	2	1	**Diseases of tympanic membrane:**- Acute supportive otitis media	
			Acute necrotizing otitis media, Serous otitis media	
5	2	1	**Thoracic injuries & trauma,** Rib fracture, Sternum, fracture, Flail chest.	
			Chronic supportive otitis media Ostosclerosis and minieres disease	
6	2	1	**Tumors of External ear:-** Benign	
			Tumors of External ear:- Malignant	
7	2	1	**Anatomy & Physiology of nose and Para nasal sinus: -** External Nose, Nasal cavity, Maxillary sinuses, Frontal sinuses, Ethmoidal sinuses, Sphenoid sinuses.	
			Physiology of nose and Para nasal sinus: - Epistaxis (Definition, Classification, Causes, Treatment)	
8	2	1	**Fracture of the nose: -** Types, Clinical feature, Investigation, Treatment	

			Deviated nasal septum: - Definition, Types, Symptoms & Signs, Complication, Treatment	
9	2	1	**Rhinitis,** Common cold, Diphtheria Rhinitis, Simple Chronic Rhinitis, Hypertrophic Rhinitis	
			Atrophic Rhinitis, Rhinitis Sicca, Rhinitis Caseosa, Malignant Granuloma	
10	2	1	**Allergic Rhinitis:** - Definition, Causes, Mechanism, Pathology, Clinical feature, Diagnosis	
			Sinusitis: - Complication of sinusitis	
11	2	1	**Tumors and cyst of nose and para nasal sinuses:-**	
			Anatomy and Physiology of pharynx: - Nasopharynx, Oro pharynx, Laryngopharynx	
12	2	1	**Adenoids,** Acute and Chronic Nasopharyngitis	
			Benign and Malignant Tumors of nasopharynx, Acute pharyngitis	
13	2	1	**Chronic Pharyngitis: -** Chronic Catarrhal Pharyngitis, Chronic Granular Pharyngitis, Chronic Atrophic Pharyngitis, Keratosis Pharyngitis.	
			Applied anatomy of facial tonsillitis, Acute Tonsillitis, Facial Diphtheria, Chronic tonsillitis, Indication for Tonsillectomy	
14	2	1	**Abscesses Related Pharynx,** Quinsy, Retropharyngeal Abscess, Parapharyngeal Abscess.	
			Oropharynx tumors: - Benign & Malignant	
15	2	1	**Anatomy & Physiology of Larynx: -** Cartilages, Joints, Ligaments & Membranes, Muscles, Cavity of the larynx, Blood supply, Innervations, Lymphatic drainage, Physiology of larynx	
			Stridor: - (Types, Causes), Acute Laryngitis, Acute Epiglositis, Acute Laryngo tracheo bronchitis, Chronic Laryngitis, TB of Larynx, Perichondritis of the Larynx	
16	2	1	**Tumors of Larynx: -** Benign & Malignant	
			Tracheostomy:- Definition, plied anatomy of the trachea, Classification, Function of tracheostomy, Indication, Contraindication, Procedure	

Nangarhar medical Faculty

Neuropsychiatry Department Curriculum for Medical Faculty

Subject : Neurology				
Grade : 5 th			First Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	1	**Neurological History and Examination:- Consciousness patient's examinations:-** Motor system examination (Inspection, tone, forces, reflexes) Cranial nerves examinations (olfactory, optic, occulomotoure, trochlear, trigeminal, abducens, facial, vestibulocochlear, glossopharyngeal, vagus, accessory, hypoglossal nerves), Co-ordination and cerebellar examination (Station and giant) Sensory system examination (limniscal sensory system, extra limniscal sensory system, cortical sensory system) **Unconconsciousness patients examinations:-** Glasgow coma scale, Eye ball movement, Respiration, Pupil and motor system examination **Laboratory investigations: -** Blood, CSF, Urine and Stool, Imaging.	
2	1	1	**Stroke:- Ischemia:-** Definition, epidemiology, Etiology (Thrombosis, Emboli & Hemorrhage) TIA (transient ischemic Attack) and Reversible Ischemic neurological Deficit (RIND):- Definition, risk factors, clinic (internal carotid circulation occlusion, vertebra basilar circulation occlusion, important points during assessment of TIA patient, routine laboratory investigations, special investigation and imaging, differential diagnosis, treatment, prevention Cerebral Infarction:- Definition, cerebral thrombosis (risk factors, clinic laboratory investigations and imaging, management, prognosis, follow up, prevention), cerebral embolism (risk factors, clinic, laboratory investigations, differential diagnosis of embolic and thrombosis cerebral infarction,	

			treatment, drugs used in treatment of cerebral infraction)	
3	1	1	**Stroke:- Hemorrhages:- Intra cerebral Hemorrhages:-** (Definition, epidemiology, etiology, risk factors, clinic investigations and imaging, treatment, prevention, prognosis), Differential diagnosis of stroke. **Subarachnoid hemorrhage:-** (Definition, etiology, clinic, classification of stages I-V, Diagnosis, additional investigation and imaging, complication, medical treatment, surgical treatment, prognosis) **Epidural Hematoma:-** (Definition, clinic, treatment, prognosis) **Acute subdural hematoma:-** (Definition, clinic, treatment) **Chronic subdural hematoma, Chronic subdural hematoma:-** (Definition, diagnosis, treatment)	
4	1	1	**Coma:-** Definition, mechanisms, classification, initial management of unconscious patient (ABCD), history, vital sign skin, respiration head and neck, papilla edema, position of eye ball, movement of eye ball, pupils extremities, etiology of unconsciousness and coma (metabolic & neurogenic) Investigation (blood, CSF, urine, stool, imaging, special tests), Assessment of brain stem in unconscious patient, Glasgow coma Scale, Locked in Syndrome, vegetative state, special nursing care for unconscious patient.	
5	1	1	**Parkinson disease:-** Definition, epidemiology, etiology, classification, idiopathic (bradykinesia, rigidity, tremor), post encephalitis (torticlis, blepharo spasm, occulogeyric crisis, sialhorrhea), atherosclerotic (pseudo bulbar palsy) , striat nigral, toxic (Co), drug induced (Reserpine, Metoclopramide, Phenothiazin derivatives), differential diagnosis, diagnosis, treatment, prognosis.	
6	1	1	**Multiple sclerosis:-** Definition, epidemiology, etiology. Clinic prognosis, diagnosis, complication, treatment, differential diagnosis, other clinical, multiple sclerosis	
7	1	1	**Seizure disorders:-** Definition, etiology, classification, Petit mal seizure, Grand mal seizure, Partial (simple & complex) seizure, Reflex seizure, Febrile convulsion, Pseudo seizure, Status	

			epilepticus, Management of tonic and colonics status epilepticus, laboratory investigation, differential diagnosis, treatment of seizure disorder, prognosis.	
8	1	1	**Neuropathy:-** Definition, Clinical manifestation, etiology, laboratory investigation **Gullian bare syndrome:-** Definition, clinic, lab., exam, imaging (NCV, EMG, ECG & EEG), electrolytes, respiratory capacities, differential diagnosis, mood of onset, treatment, complications **Chronic Inflammatory Demyelization Polyradiculoneuropathy:** Definition, clinic, differential diagnosis, treatment **Char cot marie Tooth Neuropathy:-** Definition, classification, differential diagnosis, management **Brachial Plexus neuropathy:** etiology, classification	
9	1	1	**Degenerative neurological disease:-** Definition, common sign and symptoms, classification, Alzheimer's disease:- clinical manifestation, pathology, laboratory and imaging, differential diagnosis, treatment, prognosis. Dementia with lewy bodies, Pick's disease, Multi infarct dementia, Binswanger's disease, Huntington's chorea, Olivopontocerebeller atrophy, Progressive supranunclear palsy, Shy- Dragger syndrome, Hallervoden-Spatz disease, Fried Reich's ataxia, Roussy- Levy syndrome, Motor Neuron Disease classification, Amyotrophic lateral sclerosis, Progressive spinal muscular atrophy, Bulbar palsy, Pseudo bulbar palsy, Primary lateral sclerosis, Labor's Hereditary optic atrophy, Cerebeller Degeneration, Spastic Para paresis, Acute Transverse Myelitis (clinic, treatment)	
10	1	1	**Trigeminal neuralgia and facial paralysis:-** Anatomy, physiology **Facial paralysis:** - Definition, incidence, clinic, etiology, diagnosis, differential diagnosis, prognosis, treatment. **Trigeminal neuralgia:-** Definition, diagnosis, treatment, prognosis.	
11	1	1	**Headache & Vertigo:- Headache:-** Etiology, history, classification **Migraine: -** Definition, classification, differential diagnosis, treatment. **Cluster headache: -** Definition, diagnosis,	

			treatment. **Vertigo: -** Definition, etiology, classification, important point when faced to patient who has vertigo, clinic and investigation.	
12	1	1	**R.I.C.P and Cerebral Tumor:-** Anatomy of the skull and brain, Mechanism and sign of R.I,C.P. **Brain edema: -** Body fluid, etiology, treatment, Pseudo tumor Cerebri, Normal pressure hydrocephalus. **Brain Tumor: -** (Clinical manifestation of the brain tumor. Laboratory investigation, classification), Primary brain Tumor: Gliomas, Miningioma, Penialoma, (treatment)	
13	1	1	**Sydenham's Chorea:-** Definition, incidence, pathology, etiology, sign & symptoms, reflex, prognosis, diagnosis, treatment.	
14	1	1	**Congenital nerve system malformation and low back pain:-** **Low back pain:-** Definition, etiology, classification, history, laboratory and imaging, diagnosis, prolapsed inter vertebral disc (clinic, treatment) **Congenital malformation of the CNS:-** Cranial synostosis, Platybasia (Clinic, treatment, basilar investigation), Anencephaly, Arnold- chiari malformation (clinic, diagnosis) Spine malformation: - Dysraphism, Diastematomyelia, Klipel- Feil Anomaly.	
15	1	1	**Myopathy:-** (Definition), Primary myopathy, Duchene Dystrophic myopathy (Definition, clinic, prognosis), Neurogenic myotonia, Congenital myotonia, Metabolic myopathy, Congenital myopathy, Secondary myopathy (etiology, clinic), Neuromuscular junction disease & Myasthenia Gravis (definition, clinic, investigation, differential diagnosis, treatment)	
16	1	1	**Movement disorders:-** (Personal history, Family history, drugs) Tremor:- (Resting tremor, action tremor, Intension tremor), Hemiballismus, Athetosis, Dystonia:- (classification), Focal dystonia, Blepharospasm, Hemi facial spasm, Occupational cramp, segmental dystonia, Tardive dystonia, Generalized dystonia (etiology), Tic, Gilles de la Turreted syndrome (treatment)	

Nangarhar medical Faculty

Neuropsychiatry Department Curriculum for Medical Fuculty

Subject : Psychiatry				
Grade : 5 th			Second Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	1	**Psychiatric history examination:-** Presentation (Level of consciousness, General appearance, Attitude), Motor behavior, Affect, Cognitive state (Attention, orientation, Languages Memory), Reasoning, Mood, Thought, Perception	
2	1	1	**Schizophrenic disorders:-** Definition, natural history, incidence, prevalence, etiology, sign & symptoms, sub type of schizophrenia, Course, D/Dx, Diagnostic criteria, treatment, prognosis	
3	1	1	**Mood disorders:-** epidemiology, natural history, etiology, clinic,DSM IV-diagnostic criteria for Mania, DSM IV-diagnostic criteria for anxiety patient, Bipolar disorders, Dysthysmia, Cyclothymia, Types of Bipolar disorders, side effect, course and prognosis, treatment for mania, social treatment, behavior treatment, psychotherapy	
4	1	1	**Anxiety disorders:-** Definition, epidemiology, theory of anxiety, panic attack, agoraphobia, social phobia, specific phobia, OCD, general anxiety disorders, treatment.	
5	1	1	**Substance related disorders:-** Definition, phenomenology, intoxication, neuroadaptation, Dependence, Abuse and addiction, etiology and epidemiology, neuropharmacology, antagonist, clinic over dosage, withdrawal syndrome, course, side effect, diagnosis, treatment, Cocaine and Amphetamines, Nicotine, Cannabis related disorders (neuropharmacology, clinic, treatment), Alcohol related disorders epidemiology, etiology, intoxication, neuroadaptation) alcohol withdrawal, alcohol withdrawal seizures, alcohol induced psychotic disorder, alcohol receptor, alcohol withdrawal delirium, treatment.	

6	1	1	**Sexuality disorders:-** Human Sexuality sexuality identity, sexual response cycle, sexual dysfunction, desire disorders, arousal disorder, orgasmic disorders, sexual pain disorders, paraphilias, gender identity disorder.	
7	1	1	**Personality disorders:-** Definition, epidemiology, etiology, classification (paranoid personality disorders, schizoid personality disorders, schizotypal personality disorders, histrionic personality disorders, borderline personality disorders, narcissistic personality disorders, antisocial personality disorders, dependent personality disorders)	
8	1	1	**Somatoform disorders: - Definition**, types, somatization disorders, conversion disorders, pain disorders, hypochondriasis, body dimorphic disorders.	
9	1	1	**Mental Retardation:-** Definition, nomenclature, classification, severity, epidemiology, neurological disorders, genetic syndromes, psychosocial syndromes, etiology, genetic factors, Down syndrome, Fragile x syndrome, Cat's Cry syndrome, Acquired and developmental factors, environmental and sociocultural factors, diagnosis, prognosis, treatment.	
10	1	1	**Eating disorders: -** (Definition), anorexia, eating disorders as a pathological behavior (epidemiology, etiology, clinic, diagnosis, course, prognosis, treatment), Elimination disorders, Enuresis-encopresis (epidemiology, etiology, diagnosis, treatment), Bulimia nervosa (epidemiology, etiology, clinic, treatment), Pica Rumination disorder.	
11	1	1	**Cognitive disorders:-** Delirium (Definition, epidemiology, etiology, clinical sign and symptoms, course, diagnosis, lab exam, treatment), Dementia (Definition, epidemiology, etiology, clinic) Alzhimeimer dementia (etiology), Vascular dementia, D/Dx of dementia, diagnosis, treatment. Amnestic disorders (Definition, etiology)	
12	1	1	**Factitious disorders:-** Definition, epidemiology, etiology, diagnosis and clinical features, factitious disorder with predominantly psychological sign and symptoms, factitious disorder with combined	

			psychological and physical sign and symptoms, factitious disorders not otherwise specified, (pathology and laboratory examination, differential diagnosis, prognosis, treatment)	
13	1	1	**Malingering:-** Definition, sign, diagnosis, treatment	
14	1	1	**Normal sleep and sleep disorders:** - Definition and sleep physiology, insomnia, hypersomnia, types of hypersomnia: - sleep apnea, Narcolepsy (sleep attack, muscle atonia, sleep paralysis, hypnologic and hypnologic hallucination, treatment), Klein Levine syndrome and Myoclonic nurtune, Para somnia, Night mare, Night terror, Enuresis.	
15	1	1	**Dissociative disorders:-** Definition, types, dissociative, amnesia (epidemiology, etiology, clinic, D/Dx, treatment), Dissociative face (epidemiology, etiology, clinic, D/Dx) Dissociative identify disorders (epidemiology, etiology, clinic, diagnosis, course and prognosis). Depersonalization disorders (epidemiology, etiology, clinic, diagnosis, course, treatment)	
16	1	1	**Adjustment disorders:-** Epidemiology, etiology, diagnosis and clinical feature, differential diagnosis, course and prognosis, treatment.	

Nangarhar medical Faculty

Neurosurgery Department Curriculum for Medical Faculty

Subject : Neurosurgery				
Grade : 5 th			First Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	1	**Introduction & History of Neurosurgery:-** Embryology & Neuroanatomy (Functional), spinal cord, Medulla Oblongata, Pons, Cerebellum, cranial nerves, Brain, Cerebrovascular system Neurological Examination, Neuroinvestigation, CSF, Radiology, C-T Scan, Angiography, Myeography, MRI, EEG, EMG.	
2	1	1	**Head injury:-** Definition, Cause, Pathology, Introduction and Classification of head injury, Secondary complications, Scalp Injury (Abrasion, Laceration, Hematoma, infected wounds) Skull: Vault fractures (Linear Fix, Depress Fx, Compound Depress FX) Base cranni fractures (Base skull Fx), (Ant, Med & Posterior Fossa Fx), Treatment.	
3	1	1	**(Head injury cont.) Traumatic Brain injury,** Concussion, Contusion (Mid, Moderate, Sever), Laceration Cerebral treatment.	
4	1	1	**(Head injury cont.) Compression Cerebral:-** Extramural Hematoma, Subdural Hematoma (EDH & SDH), I.C.H. Open Head injury (Civil & War wound), First Aids, Patient Examination.	
5	1	1	**(Head injury cont.) Management and Principle of treatment, Complication** of head injury, Brain Death.	
6	1	1	**Spinal Cord Injury:-** Spinal Column, Spinal Cord, Neurotraumatology, Introduction and classification of (SCI), Spine Fractures, Spinal cord Concussion, contusion (Mild, Moderate, Sever), Compression, Spinal Shock.	
7	1	1	**History and examination of SCI:-** Investigation, Civil & War wound, Caring for spinal injury and principals of Transportation & treatment, Paraplegia (caring), Complication of SCI	

8	1	1	**Increased Intra Cranial Pressure: -** Definition, Causes, Clinic, Treatment.	
9	1	1	**CNS Infections:- Brain Abscess,** Introduction, Causes, Clinic treatment (Medical, Surgical)	
10	1	1	**Peripheral Nerve injury:** - Introduction and Classification (Neuropraxia, Axontemesis, Neurotemesis), clinic and treatment	
11	1	1	**Intervertebral disc Pathology:-** Introduction and classification, Clinic (LBP, Sciatica, Cervical Spine), treatment	
12	1	1	**Neoplasm,** Introduction and classification **Brain Tumors,** Causes, Clinic, Investigation, Treatment	
13	1	1	**Spinal Cord Tumors:-** Causes, clinic, investigation, Treatment.	
14	1	1	**Pain and Surgical Treatment: -** Introduction, Clinic, Investigation, Treatment	
15	1	1	**Tuberculosis of CNS (Pott's disease):-** Introduction, Clinic (1 st Stage, 2 nd Stage) : Complication: (a: spine b: Neurological c: cold Abscess) 3 rd Stage (Ankylosis), Investigation, Treatment.	
16	1	1	**Preventive Methods for Neurotrauma & Neurorehabilitation**	

Nangarhar medical Faculty

Public Health Department Curriculum for Medical Faculty

Subject : Public Health				
Grade : 5 th			First Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	1	**National Policy, National strategy of Reproductive health:-**	
2	1	1	**Family planning for making space between deliveries:-** Purpose, Pregnancy and usage of contraceptive drugs in Afghanistan, Frequently pregnancies and their effects on the mother and child health, Deficiencies related to pregnancy on young ages (Less than 18 y), Deficiencies of frequently pregnancies, Family planning and its advantages.	
3	1	1	**Review and family planning methods:-**Purpose Menstruation cycle and it's relation with family planning methods	
4	1	1	**Consultation:-** Step of consultation, Evaluation of admitted, Medical history, Family history, Contraceptive drugs use history, S.T.D history, Physical examination, Laboratory examination, Registration, Reject of pregnancy and assessment	
5	1	1	**Condoms:-** Action mechanism, Advantages, Disadvantages, Side effects, Consultation, indication, Contra indication, Contain, Direction for admitted, Management of side effects	
6	1	1	**Combined oral Ant pregnancy drugs:-** Action mechanism, Advantages, Disadvantages, Side effects, indication, Contra indication, Contain, History taking checklist for using pills, Direction, Danger signs, Management of side effects.	
7	1	1	**Injectable contraceptive drugs:-** Mechanism of Action, Advantages, Disadvantages, Side effects, Consultation, indication, Contra indication, Contain, Evaluation of admitted, Direction, Management of side effects.	
8	1	1	**Intrauterine device (IUD):-** Mechanism of action, Advantages, Disadvantages, Side effects,	

			Consultation, indication, Contra indication, Contain, Evaluation of admitted, History tacking checklist for using of IUD, Physical examination, Laboratory examination, Registration, Direction (for Transplantation of IUD), Danger signs, Management of side effects, Removing of IUD, Traditional methods for family planning	
9	1	1	**Occupational health: - -** History, Base of occupational health, goal's, accessed methods.	
10	1	1	**Safety for work, Hazard control:-** Safety, Identification of hazards, Hazard evaluation, hazard control program, Safety locks, Apparatus for help and exit system, isolation	
11	1	1	**Health in chemical environment:-** Safety programs for chemical environment	
12	1	1	**Occupational health for health workers:-** Management for care of health workers, Transmation of disease true blood, Transmation of disease true air, Transmation of disease true skin and digestive system	
13	1	1	**Infectious disease prevalence due to health workers contact:-** Immunization for health workers, Usual test for new hired workers, Definition of contact.	
14	1	1	**Prevention o f some Communicable disease in Medical environment:** - Laboratories worker care	
15	1	1	**Ergonomy:-** Goals, Human and machine system, work and rest, Work area	
16	1	1	**Anthropometry:-** Evaluation of work damages, Work physiology.	

Nangarhar medical Faculty

Public Health Department Curriculum for Medical Faculty

Subject : Public Health				
Grade : 5 th			Second Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	1	**Management of Health Programs:-** Concept of management, planning, management and collaboration, leadership, control, performance, health concept.	
2	1	1	**Health programmed: -** Types of health programs, live cycle of health programs, priorities, planning and primary action, budgeting, sources, supporter, marketing, coverage.	
3	1	1	**Health program:-**Service, performance of services, evaluation, hypothesis, monitoring, registration system, continuous small sampling, availability, coverage, performance (median and terminal).	
4	1	1	**Evaluation of health programs based on monitoring and evaluation:-** Evaluation methods	
5	1	1	**Health economy:-** goods market, health market, economic and planning in health.	
6	1	1	**Health sectors reforms:-** Concepts of reforms, financing changes, cost recovery, de centralization, changes of activity in MOH, computation.	
7	1	1	**Needs for health sector reforms:-** Political support, identify of health system, financing situation in health system, information collets.	
8	1	1	**General information on epidemiology:-** Social and medical environment, history of epidemiology, London Epidemiology Association, epidemiology classification, usage of epidemiology, concept of epidemiology, term of epidemiology.	
9	1	1	**Term of epidemiology**	
10	1	1	**Term of epidemiology**	
11	1	1	**Surveillance and reporting:-** Goals, ability of surveillance for case definition, importance, permanent reporting in surveillance, surveillance evaluation, disease surveillance.	

12	1	1	**Surveillance component:-** Surveillance cycle, evaluation of surveillance system, case definition in surveillance system.	
13	1	1	**Disease surveillance:-** Surveillance of leprosy, Surveillance of pertusis, surveillance of TB, surveillance of anthrax, surveillance of lishmaniosis, surveillance of measles, surveillance of tetanus, surveillance of polio.	
14	1	1	**Disease surveillance:** - Surveillance of diphtheria, surveillance of meningitis, surveillance of watery diarrhea, surveillance of HIV/ AIDS, surveillance of rabies, surveillance of hemorrhagic. D- (CCHF), surveillance of based on clinical syndrome, prevention stags, prevention concepts.	
15	1	1	**Risk factors in non epidemic diseases:-** Peptic ulcer, cholilethiasis, heard D., stroke, diabetes, TB, diarrhea, special morbidity, primary prevention, secondary prevention, thirstier prevention.	
16	1	1	**Prevention of Cardiovascular Diseases:-** Risk factors, population mass screening.	

Nangarhar medical Faculty

Pediatric Surgery Department Curriculum for Medical Faculty

Subject : Pediatric Surgery				
Grade : 5 th			Second Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	1	**Congenital anomalies of the head:-** Spinal bifida	
2	1	1	**Mekel diverticulum's:-** Pathology, Sign & Symptom, treatment. Congenital mega colon: - pathology, Sign & Symptom, diagnosis, treatment.	
3	1	1	**Imperforated Anus:-**Classification, Sign & Symptom, diagnosis, treatment, intussusceptions:- Classification, sign & symptom, diagnosis, treatment Congenital hypertrophic Pyloric stenosis: - Pathology, Sign & symptom, diagnosis, treatment.	
4	1	1	**Appendicitis:-** Pathology, Sign & Symptom, diagnosis, treatment	
5	1	1	**Neuroblastoma, nephroblastoma:-** Sign & Symptom, diagnosis, treatment Extrophy Vescal:- Sign & Symptom, diagnosis	
6	1	1	**Congenital anomalies of the thoracic wall:-** Classification, Sign & Symptom, Diagnosis, treatment	
7	1	1	**PDA:-** Sign & symptom, diagnosis, treatment, ASD, VSD:- Physiopathology, sign & symptom, diagnosis, treatment.	
8	1	1	**Tetralogy of Fallot:-** Sign and Symptom, diagnosis, treatment, Trunks arteriosis and trans of great vessels:- Physiopathology, Sign & Symptom, diagnosis, treatment	
9	1	1	**Congenital Aortic valve stenosis, Congenital Aortic valve insufficiency: -** Physiopathology, Sign & Symptom, diagnosis, treatment.	
10	1	1	**Univentrecular heart, Tricuspid atresia:-** Physiopathology, Sign & Symptom, diagnosis, treatment	
11	1	1	**Congenital Pulmonary lesion:-** Physiopathology, Sign & Symptom, diagnosis, treatment.	

			Congenital Esophageal Lesion:-Sign & Symptom, diagnosis, treatment.	
12	1	1	**Cardio-pulmonary trauma:-** Sign & Symptom, diagnosis, treatment	
13	1	1	**Cardio- pulmonary bypass:-** Selection of donor, Cardio- pulmonary bypass machine.	
14	1	1	**Cardio- Pulmonary transplantation: -** History, classification	
15	1	1	**Cardio- pulmonary transplantation:-** operation technique, complication and result.	
16	1	1	**Congenital anomaly of vessel:-** Sing and Symptom, diagnosis, treatment.	

Nangarhar medical Faculty

Ophthalmology Department Curriculum for Medical Faculty

Subject : Eye				
Grade : 5 th			**Second Semester**	
Week	**Hour**		**Topics**	**Note**
	Theory	Practical		
1	2	1	**Optical System of the Eye:-** A general approach to Anatomy- physiology of the Eye, Eye optical system, Growth and Development of the vision and refractive errors, Hyperopia and myopia	
			Astigmatism, Anisometropia, Anisekonia, prespyopia, aphakia, pseudophaia and convergence	
2	2	1	**Disease of the Eyebrow and Eyelids: -** Anatomo-physiology, congenital anomalies, Acquired disease, skin disease, neuro-muscular disease of the Eyebrow and Eyelids.	
			Marginal diseases, glands disease of eyelids, positional disorders of free margin, tumors and trauma of the eyelids.	
3	2	1	**Disorders of Conjunctiva: -** Anatomo-physiology, congenital anomalies of conjunctiva, Conjunctival inflammation, non infectious conjunctivitis.	
			Bacterial, Viral, Chlamydia (trachoma and inclusion conj)	
4	2	1	**Disorder of conjunctiva:-** Allergic, Autoimmune, tumors, degenerative and trauma	
			Disorders of Lachrymal system:- Anatomo-physiology, lacrimation, dry eye, acute and chronic dacryoadinitis and lachrymal gland tumors.	
5	2	1	**Disorders of lachrymal system:-** Epiphora, acute canaliculitis, tumors of drainage passage, trauma.	
			Disorders of Extra Ocular Muscles:- Anatomo-physiology, squint, differential diagnosis of different types of squint, motive and sensory changes in squint, squint patient examination, treatment of squint.	
6	2	1	**Disorders of Orbit:-** Anatomo-physiology, disease, trauma, disorders of blood vessels and nerve of the	

			eye	
			Disease of the nerve of the eye.	
7	2	1	**Disorders of cornea:-** Anatomo-physiology, congenital anomalies, corneal inflammations, classification of Keratitis (superficial keratitis and non infectious Keratitis)	
			Bacterial, viral, filamentary keratitis, keratomalacia, vernal keratitis, physiology.	
8	2	1	**Disorders of Cornea:-** Peripheral keratitis (marginal, Moran, rosacea), intestinal, miscellaneous, exposure keratitis, corneal degenerations, tumors, injuries and principles of keratoplasty.	
			Disorders of Sclera: - Anatomo- physiology, congenital anomalies, disease, injuries.	
9	2	1	**Disorders of Uvea: -** Congenital anomalies, inflammations, classification of uveal diseases, clinical aspect, complication of Uveitis, prognosis and treatment, Tumors of the Uvea.	
			Disorders of Retina: - Anatomo-physiology, disease, artery occlusion.	
10	2	1	**Disorders of Retina: -** Vein occlusion, ales disease and retinitis pigmentosa.	
			Disorders of Retina:-Diabetes retinopathy, Hypertensive Retinopathy	
11	2	1	**Disorders of Retina:-** retinopathy of blood disorders, retinopathy of prematurity, retinopathy of Graviarum, Toxic retinopathy. Senile Macular degeneration, retinal detachment and tumors.	
			Glaucoma: - Related Anatomo- physiology, Clinical types, Congenital anomalies.	
12	2	1	**Glaucoma: -** Primary (Open angle, examination, angle closure).	
			Glaucoma: - Examination of PACG, treatment and Secondary glaucoma.	
13	2	1	**Disorders of Lens:-** Anatomo- physiology, congenital anomalies.	
			Disorders of Lens:- Coarse and stages of the Cataract.	
14	2	1	**Disorders of Lens:-** Complication and Treatment of Cataract.	
			Disorders of Vitreous: - Anatomo-physiology, Congenital anomalies, Acquired changes.	
15	2	1	**Disorders of visual pathway:-** Anatomo-physiology (optic nerve, chiasma optic, tract,	

			radiation, optic and visual cortex)	
			Disorders of visual pathway:- retino- bulbar neuritis, Optic Atrophy, Papill odema, Papillitis	
16	2	1	**Disorders of visual pathway:-** retino- bulbar neuritis, Optic atrophy, tumors of the optic nerve.	
			Disorders of visual pathway:- disorders of chiasma optic, disorders of the optic tract and optic radiation, Nystagmus, Migraine Ophthalmic	

Nangarhar medical Faculty

Forensic Medicine Department for Medical Faculty

Subject : Forensic Medicine				
Grade : 5 th			First Semester	
Week	Hour		Topics	Note
	Theory	Practical		
1	1	1	**History of Forensic Medicine** in World & Afghanistan.	
2	1	1	**Basic principle of Forensic Medicine:-** Definition, Goals, Relation to other Sciences, Principle Terms, Expertnesses, Types & Forms of Exp. Contents, Methods of F.M., Terminology, Act, Experts of E.M., Right and Responsibility of Expert.	
3	1	1	**Thanatology:-**Definition, Types of F.M., Definition, Stages, Types of Death Modification of the Body (Coldness, Dryness, Algor, Liver mortis & Autolysis).	
4	1	1	**Early Modification of the Body:-** Coldness mortis, Dryness mortis, Algor mortis, Liver mortis & Autolysis.	
5	1	1	**Late Modification of the Body: -** Putrefactions, Mummification, Saponification, Processes conservation of Natural Decomposition of the body animals, insects and plants.	
6	1	1	**Bodied Investigations:-** Exhumation, time of death, autopsy room. Physical examination of the body (Int & Ext), other examination, Remake of the body.	
7	1	1	**Bodies Investigations:-** Identification of unknown bodies, Fragmented bodies, Skeleton bodies, Boned bodies, Dx of premortem and postmortem burns.	
8	1	1	**Asphyxia:-** Definition, Types, Stages, General signs, Hanging, Strangulation (by rope, manual), Compression of chest and abdomen, Airway obstruction, Oral and Nasal obstruction.	
9	1	1	**Drawing & Immersion: -** Drawing & Immersion, Causes of death.	
10	1	1	**Forensic Trumatology:-** Definition, Traumatism,	

			Classification by anatomic specification, irritation, Ecchymosis, Wounds, Fracture, Dislocation, Joint anthrosis, Classification by surface of harming tools (Blind weapons, Sharp weapons, Firearm injuries)	
11	1	1	**Firearm injuries:-** Definition, Classification, Fire factors, Mechanism of bullet effects (Entrance hole, External canal, Shooting distance, Forms of death), Action in death causing injuries, Causes of death in mechanical injuries, Electro trauma, Heat trauma, Cold trauma, Psycho trauma.	
12	1	1	**Vital cases:-** Identification, Age determination, puberty, Ability of impregnation and getting Impregnation, Pregnancy, Delivery, Abortion, Fertility, Infertility, Simulation, Physical ability.	
13	1	1	**Vital Causes:-** Simulation, Dissimulations, Aggravations.	
14	1	1	**Sexual cases in forensic Medicine: -** Unchasing Acts, Crimes against chastity, Sexual harassment in virgin and non virgin, Sexual deviations Definition and kinds.	
15	1	1	**Evidence of Crime:-** Definition, Blood investigation, sperm investigation, Hair investigation, Dactyloscopy, DNA investigation	
16	1	1	**Investigation of infants bodies: -** Determination of (infancy, on time delivery, Live delivery, Vitality, Misdelivery, Vitality of infants delivery), Causes of infancy deaths.	


بسم الله الرحمن الرحيم

Nangarhar Medical Faculty

Curriculum & Syllabus of Nangarhar Medical Faculty

(In English)

2013

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Message from the Ministry of Higher Education

In the history, book has played a very important role in gaining knowledge and science and it is the fundamental unit of educational curriculum which can also play an effective role in improving the quality of Higher Education. Therefore, keeping in mind the needs of the society and based on educational standards, new learning materials and textbooks should be published for the students.

I appreciate the efforts of the lecturers of Higher Education Institutions and I am very thankful to them who have worked for many years and have written or translated textbooks.

I also warmly welcome more lecturers to prepare textbooks in their respective fields. So, that they should be published and distributed among the students to take full advantage of them.

The Ministry of Higher Education has the responsibility to make available new and updated learning materials in order to better educate our students.

At the end, I am very grateful to German Committee for Afghan Children and all those institutions and people who have provided opportunities for publishing medical textbooks.

I am hopeful that this project should be continued and publish textbooks in other subjects too.

Sincerely,

Prof. Dr. Obaidullah Obaid

Minister of Higher Education

Kabul, 2013

Publishing Medical Textbooks

Honorable lecturers and dear students,

The lack of quality textbooks in the universities of Afghanistan is a serious issue, which is repeatedly challenging the students and teachers alike. To tackle this issue we have initiated the process of providing textbooks to the students of medicine. In the past two years we have successfully published and delivered copies of 116 different books to the medical colleges across the country.

The Afghan National Higher Education Strategy (2010-1014) states:

"Funds will be made ensured to encourage the writing and publication of text books in Dari and Pashto, especially in priority areas, to improve the quality of teaching and learning and give students access to state-of- the-art information. In the meantime, translation of English language textbooks and journals into Dari and Pashto is a major challenge for curriculum reform. Without this, it would not be possible for university students and faculty to acquire updated and accurate knowledge"

The medical colleges' students and lecturers in Afghanistan are facing multiple challenges. The out-dated method of lecture and no accessibility to update and new teaching materials are main problems. The students use low quality and cheap study materials (copied notes & papers), hence the Afghan students are deprived of modern knowledge and developments in their respective

subjects. It is vital to compose and print the books that have been written by lecturers. Taking the situation of the country into consideration, we need desperately capable and professional medical experts. Those, who can contribute in improving standard of medical education and Public Health throughout Afghanistan, thus enough attention, should be given to the medical colleges.

For this reason, we have published 116 different medical textbooks from Nangarhar, Khost, Kandahar, Herat, Balkh and Kapisa medical colleges and Kabul Medical University. Currently we are working to publish 20 more medical textbooks for Nangarhar Medical Faculty. It is to be mentioned that all these books have been distributed among the medical colleges of the country free of cost.

All published medical textbooks can be downloadable from www.ecampus-afghanistan.org

The book in your hand is a sample of printed textbook. We would like to continue this project and to end the method of manual notes and papers. Based on the request of Higher Education Institutions, there is need to publish about 100 different textbooks each year.

As requested by the Ministry of Higher Education, the Afghan universities, lecturers & students they want to extend this project to the non-medical subjects e.g. Science, Engineering, Agriculture, Economics, Literature and Social Science. It is reminded that we publish textbooks for different colleges of the country who are in need.

I would like to ask all the lecturers to write new textbooks, translate or revise their lecture notes or written books and share them with us to be published. We assure them quality composition, printing and free of cost distribution to the medical colleges.

I would like the students to encourage and assist their lecturers in this regard. We welcome any recommendations and suggestions for improvement.

It is mentionable that the authors and publishers tried to prepare the books according to the international standards but if there is any problem in the book, we kindly request the readers to send their comments to us or authors to in order to be corrected in the future.

We are very thankful to German Aid for Afghan Children its director Dr. Eroes, who has provided funds for this book. To be mentioned in Past two years he also Provided funds for 20 medical textbooks which are being used by the students of Nangarhar and others medical colleges of the country.

I am especially grateful to GIZ (German Society for International Cooperation) and CIM (Centre for International Migration & Development) for providing working opportunities for me during the past three years in Afghanistan.

In Afghanistan, I would like cordially to thank His Excellency the Minister of Higher Education, Prof. Dr. Obaidullah Obaid, Academic Deputy Minister Prof. Mohammad Osman Babury and Deputy

Minister for Administrative & Financial Affairs Prof. Dr. Gul Hassan Walizai as well as the chancellor of Nangarhar University Dr. Mohammad Saber for their cooperation and support for this project. I am also thankful to all those lecturers that encouraged us and gave all these books to be published. At the end I appreciate the efforts of my colleagues in the office for publishing books.

Dr Yahya Wardak
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