

ivane j avaxi Svil is sax. Tbil isis saxel mwifo universiteti

F

zust da sabunebismetyvel o mecnierebaTa fakul teti

1. sabakal avro programis dasaxel eba: "fizika" "Physics"

2. misaniWebel i akademiuri xarisxi: "fizikis bakal avri" "Bachelor in Physics" (BSc in Physics)

3. sabakal avro programis xel mZrvanel i / koordinatori: Tsu srul i profesori a. ugul ava (ix. misi CV)

saspecial izacioa arCeviTi modul ebis koordinatori:

"fundamenturi fizika" - Tsu asoc. profesori n. SaTaSvil i (ix. misi CV)

"gamoyenebiTi fizika" - Tsu srul i profesori a. Sengel aia (ix. misi CV)

"biofizika" - Tsu asoc. profesori T. mZinaraSvil i (ix. misi CV)

4. sabakal avro programis sakval ifikacio daxasiaTeba

fizika warmoadgens warmoadgens fundamenturi mecnierebis safuZvel s, is Tanamedrove azrovnebis saZirkvel ia. mecnierebis arseboba nebismieri qveynis zogad-intel eqtual uri donis maCvenebel ia da misi ganviTareba civil izebul i samyaros upirvel esi sazrunavia.

fizikis mimarTul ebiT swavl eba aRniSnul fakul tetze unda emsaxurebodes Tanamedrove donis umaRl esi ganaTl ebis da samecniero unarCvevebis mqone fizikosis Camoyal ibebas. am amocanis Sesasrul ebl ad mizanSewonil ia 3-safexuriani swavl eba. sabakal avro programa am erTiani swavl ebis l safexuria.

sabakal avro programis mizani da motivacia: studentma unda SeiZinos sabaziso fundamenturi codna fizikaSi; fizikuri eqsperimentis Catarebis unarCvevebi da Seiswavl os Tanamedrove fizikis safuZvl ebi.

aqtual oba da mniSvnel oba: fizikas aqvs martivi, l ogikurad mwyobri struqtura, romelic mis erTianobas ganapirobobs da romelic bunebis uzogades kanonebs Seiswavl is. bunebis kanonebi amyarebs urTierTkavSirs movl enebis Soris, rac saSual ebas iZl eva cnobil i movl enebis mixedviT viwinaswarmetyvel oT ucnobi movl enebi; movl enebis Soris mizez-Sedegobrivi kavSirebis codna fizikis erTerTi upiratesobaTagania. fizika bunebismetyvel ebis da teqniki safuZvel ia da misi uzogadesi, Zireul i kanonebi im kerZoO kanonzomierebaTa axsnis principul SesaZl ebl obas iZl eva, roml ebsac sxva sabunebismetyvel o mecnierebani da teqnika adgenen. samyaros Semecnebis (fundamenturi fizika) garda fizikas udidesi utilitarul i mniSvnel oba aqvs. gamoyenebiTma fizikam Secval a Cveni sasicocxl o garemo – energitika, kl imatis probl emebi, informaciis da miRebisa da gadacemis saSual ebebi., biol ogiuri obieqtebi, medicina, nanoteqnoI oiebi da sxva. ganuzomel ia biofizikis mniSvnel oba.

Tanamedrove fizikaSi mraval i aqtul auri sakiTxia gadasaWrel i. maT gadawyvetaze msofil ios mraval i samecniero jgufi muSaobs. qarTvel i fizikosebi (rogorc saqarTvel oSi, aseve wamyvan saerTaSoriso samecniero da saswavl o centrebSi) CarTul ni arian umniSvnel ovanes samecniero proeqtebSi, moRvaweoben saganmanaTl ebl o centrebSi, xel mZrvanel oben did kvl eviT jgufesba da proeqtebs, samecniero mimarTul ebebs, institutebsa da centrebs, mrcovel Ta sabWoebSa Tu dargobrivi komitetebS. es fizikosebi ZiriTadad ivane j avaxiSvil is sax. Tbil isis saxel mwifo universitetis kursdamTavrebul ebi arian. am universitetis zust da sabunebismetyvel o mecnierebaTa fakul tets (roml is Semadgenl obaSicaa yofil i fizikis fakul teti) aqvs mraval wl iani warmatebul i gamocdil eba saerTaSoriso donis fizikosta momzadebisa. am

universitetis fizikis mīmarTul eba erTerTi pirvel Tagania misi daarsebidan. fizikis ganviTareba Cvens qveyanaSi yovel Tvis saerTaSoriso standartebis doneze mīmdinareobda. dawyebul i maTe mirianaSvil idan, el eFTER andronikaSvil idan, vagan mamasaxl isovidan, givi xuciSvil idan dRemde araerTi warmatebul i qarTvel i fizikosis dasaxel eba SegviZl ia. saqarTvel oSi fizikis ganviTarebaSi mniSvnel ovani wvl il i Seitanes qarTvel ma maTematikosebma da maTematikurma skol am: il ia vekuam, niko musxel iSvil ma, viqtor kuprazem da sxvebma. saqarTvel oSiAarsebul i skol a fizikaSi myar safuZvel s iZl eva fizikis mīmarTul ebiT kargi fuundamenturi codnis SeZenisa.

aseve mniSvnel ovania fizikosTa warmatebul i magaliTebi biznesSi, marTvisa (maT Soris saxedl mwifo marTvis) da sabanko sistemebSi (zogadad mTel s msofli oSi da maT Soris saqarTvel oSic). aseTi warmatebis safuZvel s is fundamenturi codna da unarCvebebi iZl eva, rasac studenti iZens fizikis mīmarTul ebiT swavl isas.

sabakal avro programaze mīRebis winapirobebi: fizikis sabakal avro programis studenti SeiZl eba gaxdes srul i saSual i ganaTl ebis mqone piri. konkursanti abarebs misaReb gamocdebs erovnul sagamocdo centrSi sakonkurso sagamodo programis mocul obiT.

swavl is Sedegi (ix. danarTSi swavl ebis Sedegebis cxril i): fizikis sabkal avro programa saSual ebas miscems studentebis mīRon sabaziso fundamenturi ganaTl eba fizikaSi, kerZod:

kursis damTavrebis Semdeg studenti iZens Semdeg kompetenciebs da mas unda hqondes:

- fizikis dargisaTvis aucil ebel i masal is Teoriul i sabaziso codna.
- abstraqtul i azrovnebis, anal izisa da sinTezis unari.
- dargis codna-gaazrebisa da profesiiis gaTavisebis unari.
- sainformacio da sakomunikacio teqnol ogiebis gamoyenebis unari.
- probl emebis identificirebis, dasmisa da gadawyvetis unari.
- dasabuTebul i gadawyvetil ebis mīRebis unari.
- damoukidebel i muSaobis unari.
- funamenturi da gamoyenebiTi kvl evebis unarebi
- interdiscipl inarul i midgomis / muSaobis unarebi.
- Rrma zogadi kul tura fizikaSi; fizikuri movl enebis Teoriul i codna.
- eqpserimentul i da l laboratoriu i muSaobis unarebi.
- maTematikuri da kompiuterul i model irebis codna; probl emebis amoxsnis unarebi da maTEmatikuri unarebi.
- kvl evis saTanado doneze warmarTvis unari.
- axal i / original uri ideebis generirebis unari (SemoqmedebiToba).
- proeqtebis SemuSavebisa da marTvis unari.

da amasTan erTad unda axasiaTebdes Semdegi unarebi:

- SeZenil i codnis praqtikaSi gamoyenebis unari.
- swavl is da codnis mudmivi ganaxl ebis unari.
- sxvadasxva wyarodan informaciis moZiebis, damuSavebisa da anal izis unari.
- dakisrebul i amocanebisa da nakisri val debul ebepis SemarTebiT ganxorciel ebisa da bol omde miyvanis unari.
- drois dagegmvisa da marTvis (drois menej mentis) unari.
- saerTaSoriso konteqstSi muSaobis unari.
- adamianebis motivirebisa da saerTo miznebisken warmarTvis unari.
- saqmiani wamowyebisa da iniciativis sakuTar Tavze aRebis unari.

programis ganxorciel ebis studenti izens Teoriul sabaziso ganaTI ebas fizikaSi, romelic ganuyofel ia eqsperimentul i ganaTI ebisagan, vinaidan fizikis kanonta marTebul obis kretireiumi eqsperimentia. am ukanasknel s studenti fizikis laboratoriebSi eufl eba. saswavl o eqsperimentis organuli nawil ia sademonstracio cdebi, roml ebic Tan axl avs l eqciebs. eqsperimenti da cda students aZl evs naTel warmodgenas movlenis fizikur principebsa da im kanonebze, rac ganapirobebs mizez-Sedegobriv kavSirebs. bunebis movl ebebi rTul i da mraVal feroVania da maTi Seswavl isas aucil ebel ia mocemul i amocanisaTvis ararsebiTis ugul ebel yofa da ideal izebul i movl enebis ganxil va – es fizikuri amocanebis kvl evis umniSvnel ovanesi nawil ia. fizikis swavl eba aseve ganuyofel ia maTematikis safuZvl ebis ganaTI ebisagan. programaSi es uknasknel i mniSvnel ovnad aris warmodgenil i. aseve umniSvnel ovanesi nawil ia fizikis amocanebis kvl evaSi kompiuterul i model irebisa da viziual izaciis el ementebis gamoyeneba; am meTodebis gareSe TiTqmis SeuZl ebel ia Tanamedrove amocanebis amoxsna Tu ukve moZiebul i amonaxsnebis il usustrieba. fizikis sabakal avro programa iZl eva saSual ebas studentma SeiZinos sabaziso codna rogorc eqsperimentul i, aseve kompiuterul i model irebis kvl evis meTodebSi.

fizikis sabakal avro programa iZl eva SesaZl ebl obas mowinave donis sabaziso ganaTI ebis miRebisa rogorc fundamenturi fizikis mimarTul ebiT, aseve gamoyenebiTi fizikisa da biofizikis mimarTul ebiT (ix. saswavl o gegma, saspecial izacio arCeviTi modul ebi).

fizikis sabakal avro programis ganxorciel ebis swavl ebis organizeba uzrunvel yofs:

- o ZiriTadi special obis (Major) sabaziso kursebis daufl ebas.
- o saFakul teto da special obis arCeviTi kursebis Seswavl as.
- o sauniversiteto Tavisufal i arCeviTi sagnebis Seswavl as.
- o aranakl eb erTi ucxo enis Seswavl as special obis terminol ogiis aTvisebiT.
- o damatebiTi (Minor) special obis daufl ebas (ara fizikaSi).
- o Tanamedrove sainformacio teqnoL ogiebis aTviseba-gamoyenebas.
- o saswavl o-samecniero praqtikis gavl as da profesiul i unarCvevebis miRebas.

material ur-teqnikuri baza: programaze saswavl o procesisaTvis gamoyeneba Tsu II korpusis auditoriebi, zust da sabunebismetyvel o mecnierebaTa fakul tetis kompiuterul i baza, biblioteka da inventari. tradiciul i programebis paketebiT aRWurvil Tanamedrove kompiuterul kl asebsi studentebS eZl evaT saWiro informaciis miRebisa da el eqtronul i bibliotekiT sargebl obis SesaZl ebl oba (online reJimSi). garda amisa, studentebisaTvis xel misawvdomi iqneba el -fosta, roml is meSveobiTac maT eqnebaT damatebiTi kavSiri l eqtorebsa da studentTa j gufebis xel mZRvanel ebTan.

dasaqmebis sferoebi: fizikis bakal avris xarisxis mqone pirebi dasaqmdebian saswavl o da samecniero dawesebul ebebsi, kerZo da saxel mwifo kvl eviT centrebsi, laboratoriebSi, teqnoL ogiur da sainJiro centrebsi. samagistro programebze swavl is gagrZel ebis SemTxvevaSi fizikis bakal avrs aqvs SesaZl ebl oba kvl eviT poreqtebsi monawil eobisa (rogorc umaRl es saswavl ebl ebSi, aseve kvl eviT centrebsa da institutebSi).

fizikis bakal avris SesaZl o dasaqmebis sferoebia aseve kavSirgabmul obis sistemebi, sameicino dawesebul ebebi da diagnostikuri centrebi, kompiuterul i firmebi, marTvisa da sabanko sistemebi, Tavdacvisa da Sinagan saqmeTa saminitroebis uwebebi, sxva samTavrobo da arasamTavrobo dawesebul ebebi. aRsanisnavia, rom es dasaqmebis centrebi fizikis bakal avrisaTvis xel mmisawvdomia rogorc saqarTvel oSi, aseve sazRvargareTac.

swavl is gagrZel ebis saSual eba: swavl is gagrZel eba SesaZl ebel i iqneba magistraturaSi rogorc fizikis mimarTul ebiT, aseve maTematikis, informatikisa da sabunebismetyvel o mecnierebebis interdisciplinarul dargebSi, sainJiro teqnoL ogiebsi anda ganaTI ebis mecnierebebis magistraturis mimarTul ebiT saqarTvel oSi an sazRvargareT.

5. ZiriTadi special obis arCebis bol o vada (semestri). mexuTe semestri – aq igul isxmeba saspecial izacio modul is arCeva anda modul ebidan sagnebis arCeva.

6. sabakal avro programis struktura – sasvav l o gegma:

ZiriTadi special oba "fizika (Physics – Major)– zust da sabunebismetyvel o mecnierebaTa fakul teti

sauniversiteto kursebi						
kodi	sagnis saxel wodeba	ECTS kreditebi	sakontaqto /damoukidebel i muSaobis saaTebis raodenoba	saganze / modul ze daSvebis winapiroba	swavl ebis semestri (Semodgomis / gazafxulis)	I eqtori/ I eqtorebi
1	ucxo ena	10	4 saaTi (2 semestri)	saSual o skol is codna	II da III	
safakul teto saval debul o kursebi (10 krediti)						
kodi	sagnis/modulis saxel wodeba	ECTS kreditebi	sakontaqto /damoukidebel i muSaobis saaTebis raodenoba	saganze / modul ze daSvebis winapiroba	swavl ebis semestri (Semodgomis / gazafxulis)	I eqtori/ I eqtorebi
2	kal kul usi	5	2 + 2	saSual o skol is codna	I	T. vefxvaze
3	kompiuterul i unarCvevebi	5	2 + 2	saSual o skol is codna	I	
safakul teto arCeviTi kursebi (20 krediti, aqedan saval debul oa "fizikis Sesaval i" (5 krediti) da danarCen 15 kredits studenti irCevs))						
4	sagani – fizikis Sesaval i	5	2 + 2 (I q + pr)	saSual o skol is codna	I	a.Sengel aia/ s. wereTel i
5	sagani – qimiis Sesaval i	5	2 + 2 + 2I ab	" --- "	I	
6	sagani – biol ogiis Sesaval i	5	2 + 2	" --- "	I	
7	sagani – geol ogiis Sesaval i	5	2 + 2	" --- "	I	
7	sagani – geografiiis Sesaval i	5	2 + 2	" --- "	I	
7	sagani – anal izuri geometria da wrfivi al gebra	5	2 + 2	" --- "	I	
7	sagani – daprogramebis safuZvl ebi	5	2 + 2	" --- "	I	
7	Sagani – el eqtronikis Sesaval i	5	2 + 2	" --- "	I	
special obis saval debul o kursebi (80 krediti) + sadipl omo naSromi (10 krediti)						
8	meqanika	5	8sT (3+2+0+3) 3I q+2pr+0sem+3I ab aqedan 3sT I aboratoria kvireul i 20sT-iani datvirTvidan gadis	sagani 4	II	a.Sengel aia / i. papava
9	mol ekul uri fizika	5	igive	sagani 8	III	Qa. ugul ava / g. j afarize
10	el eqtroba	5	igive	sagani 9	IV	n. SaTavil i / r. zariZe / v. bereJiani

11	optika	5	igive	sagani 10	V	r. zariZe / r. xomeriki
12	atomisa da atombirTvis fizika	5	igive	sagani 11	VI	z. maWavariani / T. Wel iZe / T. keresel iZe
13	maTematikuri anal izi	10	2 + 2	sagani 2	II da III	u. goginava / T. kopal iani / n. Wel iZe
14	anal izuri geometria da umaRI esi al gebra	5	2 + 2	sagani 3	II	T. vefxvaZe
15	diferencial uri gantol ebebi	5	2 + 2	sagnebi 13,14	III	g. giorgaZe
16	kompl eqsuri cvl adis Teoria	5	2 + 2	sagnebi 13,14,15	IV	g. barel aZe / s.xaribegaSvil i
17	fizikis amocanebis model irebis safuZvl ebi	5	2 + 2	sagani 3	II	d. kakul ia / r. zariZe / m. tabiZe
18	Teoriul i meqanika	5	3 + 2	sagani 8	IV	a. xel aSvil i / m.gogberaSvil i / T.keresel iZe
19	vel is Teoria	5	3 + 2	sagnebi 10,13,14,15	V	n. SaTaSvil i / a. xel aSvil i
20	kvanturi meqanika I	5	3 + 2	sagani 18	VI	T. keresel iZe / m. gogberaSvil i
21	statistikuri fizika da Termodinamika I	5	3 + 2	sagnebi 9,18,19,20	VII	a. ugul ava / I . Wotorl iSvil i
22	fizikis amocanebis kompiuterul i uzrunvel yofa	5	2+2	sagnebi 7, 17	VII	r. xomeriki / s. CxaiZe/n.Citaia
23	sadipl omo naSromi	10	4 (gasarkvevia)		VIII	

saspecial izacio arCeviTi modul ebi						
kodi	modul is saxel wodeba	ECTS kreditebi	sakontaqto /damoukidebel i muSaobis saaTebis raodenoba	saganze / modul ze daSvebis winapiroba	swavl ebi semestri (Semodgomis / gazafxul is)	I eqtori/ I eqtorebi
	modul i 1: fundamenturi fizika	30 (6sagani)	(6 * 3sT) sagani - 2+1, maT. fizika 2+2	ix. qvemoT	V - VIII semestrebi	ix. qvemoT
	modul i 2: gamoyenebiTi fizika	30	(6 * 3sT)	ix. qvemoT	" --- "	ix. qvemoT
	modul i 3: biofizika	30	(6 * 3sT)	ix. qvemoT	" --- "	ix. qvemoT

studentma unda airCios 2 sagani mainc erTi bl okidan ise, rom 6 sagani qondes sabol ood. umj obesia erTi modul is arCeva, an sagnebis arCeva 2- modul idan. arCeva xorciel deba programis koordinatorTan da modul ebis koordinatorTan konsul taciis gavli Sedegad.

saspecial izacio arCeviTi modul i I - fundamenturi fizika						
kodi	sagnis	ECTS kreditebi	sakontaqto /damoukidebel i muSaobis saaTebis raodenoba	saganze / modul ze daSvebis winapiroba	swavl ebi semestri (Semodgomis / gazafxulis)	I eqtori/ I eqtorebi
24	Teoriuli fizikis maTematikuri meTodebi	5	2 + 2 (2l q + 2pr)	sagnebi 13,14,15,16	V	m. el iaSvili
25	uwyveti garemos el eqtrodinamika	5	2l q + 1sem	sagani 19	VI	g. jafariZe / v. bereJiani
26	birTvuli fizika	5	3 + 1pr + 3l ab	sagani 12	VII	s. wereTel i / T. j al aRania
27	kvanturi meqanika II	5	2 + 1	sagani 20	VII	T. keresel iZe / m.gogberaSvili
28	statistikuri fizika da Termodinamika II	5	2 + 1	sagani 21	VIII	a. ugulava / I . WotorliSvili
29	hidrodinamika	5	2 + 1	sagnebi 8,18,10,21	VIII	n. SaTaSvili / a. TevzaZe

SeniSvna: 2008 wl is Semodgomis semestrSi sagani "birTvuli fizika" aris saval debul o kursi.

saspecial izacio arCeviTi modul i II - gamoyenebiTi fizika						
kodi	sagnis	ECTS kreditebi	sakontaqto /damoukidebel i muSaobis saaTebis raodenoba	saganze / modul ze daSvebis winapiroba	swavl ebi semestri (Semodgomis / gazafxulis)	I eqtori/ I eqtorebi
30	samedicino fizika	5	2 + 1 + 3l ab (2l q + 1sem + 2l ab)	sagnebi 8, 9, 10	V	m.xvedel iZe / z.mel iqiSvili / e. CikvaiZe / z. Savgul iZe
31	gamoyenebiTi el eqtrodinamika, rxvebi, tal Ruri procesebi	5	2 + 2	sagnebi 10, 11, 17	VI	r. zariZe / d. kakulia
32	gamoyenebiTi birTvuli fizika (safuzvl ebi)	5	2 + 1 + 3l ab	sagnebi 12, 20	VII	s. wereTel i / r. Savgul iZe
33	radiofizika da el eqtronika	5	2 + 1 + 3l ab	sagnebi 10, 12, 20	VII	a. axal kaci / r.mirianaSvili / g. mamniaSvili
34	masal aTmcodneoba	5	3 + 1 + 3l ab	sagnebi 10, 12, 20, 21	VIII	a. Sengel aia / g. jafariZe
35	mikro da nanoel eqtronika	5	2 + 1	sagnebi 10, 12, 20, 21	VIII	a.bibili aSvili / a. axal kaci / g. mamniaSvili

saspecial izacio arCeviTi modul i III - biofizika						
kodi	sagnis	ECTS kreditebi	sakontaqto /damoukidebel i muSaobis saaTebis raodenoba	saganze / modul ze daSvebis winapiroba	swavl ebi semestri (Semodgomis / gazafxul is)	I eqtori/ I eqtorebi
36	0organul i da araorganul i qimiis safuZvl ebi biofizikosebisaTvis	5	2 + 1 (+ 3) 2I q + 1sem (+ 3I ab)	saSual o skol is codna	V	d. xoStaria / T. mZinaraSvil i
37	bioqimiis safuZvl ebi	5	2 + 2 + (3I ab)	sagani 36, saSual o skol is codna	VI	n. Sengel ia / m. xvedel iZe
38	fizikuri qimia biofizikosebisaTvis	5	2 + 1	sagani 8,9,10,11,12,36	VII	e. CikvaiZe / d. xoStaria
39	fizikuri meTodebi biol ogiaSi (safuZvl ebi)	5	2 + 1 + (3I ab)	sagani 8,9,10,11,12,39	VII	T.mZinaraSvil i /d. xoStaria
40	kvanturi qimia biofizikosebisaTvis	5	2 + 1	sagani 20,27,36	VIII	j . keresel iZe /n. vaSaymaZe / T. keresel iZe
41	biofizikis safuZvl ebi	5	2 + 1	sagani 8,9,10,11,12,39,40	VIII	T.mZinaraSvil i / n. Sengel ia

sabol oo ganawil eba aris aseTi: 10+30+90+30; sul 160, rCeba kidev 20 Tavisufal i arCeviTi sagnebisaTvis da 60 Minor-isaTvis. (an raime sxva arCeviTi sagnebisaTvis).

Minors studenti irCevs rogorc Tavisi fakul tetidan, aseve nebismieri sxva fakul tetidan (Tumca am ukanasknel ze garkveul i SezRudvebi zogierT fakul tets udevs).

fizikis ZiriTadi special obis (Major) sakontaqto saaTebis ganawil eba semestrebSi

- I – 20°sT (mosal odnel ia I laboratoriebi aqac iyos fizikaSi)
- II – 17 sT (+ 3 I laboratoria kvireul i datvirTvis gareT)
- III – 13 sT (+ 3 I laboratoria kvireul i datvirTvis gareT)
- IV – 14 sT (+ 3 I laboratoria kvireul i datvirTvis gareT)
- V – 13 sT (+ 3 I laboratoria kvireul i datvirTvis gareT)
- VI – 8 sT (+ 3 I laboratoria kvireul i datvirTvis gareT)
- VII – 12 sT (+ 3 I laboratoria kvireul i datvirTvis gareT)
- VIII – 6 sT (+ 4 sadipl omo naSromi)

sul aris 103 saaTi I labororiebis garda, amas emateba 8 sT ingl isuri da sadipl omo naSromi (4 sT). sul gamodis 115 sT. es yvel aferi kreditebSi tol fasia 160 kreditis.

fizikis damatebiTi special oba - Physics Minor

(60 ECTS krediti, aqedan 40 saval debul o 20 arCeviTi)

Minor - fizika						
saval debul o kursebi (40 ECTS)						
Kkodi	sagnis saxel wodeba	ECTS kreditebi	sakontaqto /damoukidebel i muSaobis saaTebis raodenoba	saganze / modul ze daSvebis winapiroba	swavl ebi semestri (Semodgomis / gazafxul is)	I eqtori/ I eqtorebi
1	fizikis Sesaval i	5	2+2 (l q + pr)	saSual o skol is masal a	Semodgomis da aseve gazafxul is	ix. Major-Si
2	meqanika	5	8sT (3+2+0+3) 3l q+2pr+0sem+3l ab aqedan 3sT l aboratoria kvireul i 20sT-iani datvirTvidan gadis	sagani 1	Semodgomis da aseve gazafxul is	" - "
3	mol ekul uri fizika	5	" ... "	sagani 2	" ... "	" - "
4	el eqtroba	5	" ... "	sagani 3	" ... "	" - "
5	optika	5	" ... "	sagani 4	" ... "	" - "
6	atomuri fizika	5	" ... "	sagani 5	" ... "	" - "
7	Teoriul i meqanika	5	3 + 2	sagani 1	" ... "	" - "
8	kvanturi meqanika	5	3 + 2	sagani 7	" ... "	" - "
arCeviTi kursebi (unda airCios 4 sagani raTa daagrovos 20 ECTS)						
9	hidrodinamika	5	2 + 1	ZiriTadi sagnebi	Semodgomis da aseve gazafxul is	ix. Major-Si
10	gamoyenebiTi el eqtrodinamika, rxevebi, tal Ruri procesebi	5	2 + 2	" ... "	" ... "	" - "
11	masal aTmcodneoba	5	3 + 1 + 3l ab	" ... "	" ... "	" - "
12	radiofizika da el eqtronika	5	2 + 1	" ... "	" ... "	" - "
13	fizikis amocanebis maTematikuri uzrunvel yofa	5	2 + 2	" ... "	" ... "	" - "
14	fizikuri meTodebi biol ogiaSi	5	2 + 1 + 3l ab	" ... "	" ... "	" - "
15	GgamoyenebiTi birTvlul i fizika	5	2 + 1	" ... "	" ... "	" - "
16	samedicino fizika	5	2 + 1	" ... "	" ... "	" - "

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Seni Svna: studentma SeiZl eba aiRos sagnebi mis cxril Tan SesabamisobaSi. fakul tetze unda mogvardes damatebiTi special obis sagnebisaTvis special uri drois gamoyofa raTa misawvdomi iyos studentebisaTvis am kursebis gavl a.

7. modul ebis / sagnebis sil abusebi. sagnebis sil abusebi ix. danarTebSi.