

**Periodical Report
18 Months of project
implementation**

New and Innovative Courses for Precision Agriculture



**TASHKENT UNIVERSITY OF INFORMATION TECHNOLOGIES NAMED
AFTER MUHAMMAD AL-KHWARIZMI,
FACULTY OF COMPUTER ENGINEERING**

PhD. Temurbek Kuchkorov

**Joint Project: Capacity Building in the Field
of Higher Education ERASMUS+ 2018**

Co-funded by the
Erasmus+ Programme
of the European Union



New Curricula/Modules for MA Program “Geoinformation systems and technologies”

#	Subjects	Credits	Schedule			
			1-course		2-course	
			Semesters			
			1	2	3	4
			# weeks in semester			
			15	15	15	9
1.00	Methodological subjects	10	X	X	X	0
2.00	Subjects of specialty	23	X	X	X	0
2.01	Geoinformation technologies and applications development	6	X			
2.02	Satellite image processing	6	X			
2.03	Remote sensing technologies and applications	5		X		
2.04	Web technologies for geo-portals and geo-services	6			X	
3.00	Elective specialty subjects	15	0	X	X	0
3.01	SENTINEL 1-2-3 imagery for agricultural field monitoring / Global Navigation Satellite Systems (NAVSTAR, GLONASS, GALILEO, etc.)	6		X		
3.02	Machine learning algorithms and big data analysis / Matlab and Python for structural and object oriented programming	5		X		
3.03	Precision agriculture basics and technologies / Advanced Methods for Geospatial Analysis (QGIS, GRASS, PostGIS DB)	4				X
	Total:	48	X	X	X	X
4.00	Science activity	72	X	X	X	X
4.01	Preparing Masters dissertation	52	X	X	X	X
4.02	Science Pedagogical work	8	X	X	X	
4.03	Internship	12				X
	OVERALL:	120				



New Courses development process

Course №	Title of the course	Number of ECTS	Name of the person(s) responsible for development + email	Teachers have completed trainings regarding the course (yes or no/ in EU or at home university)	Estimate the percentage of course description development	Estimate the percentage of lecture notes/ presentations development	Estimate the percentage of course work methodology development (if applicable)	Estimate the percentage of practical/laboratory work methodology development	Estimate the percentage of content, that is planned to be delivered in English (if applicable)
2.01	Geoinformation technologies and application development	6	2	yes	100	80	100	-	end of the first teaching year
2.02	Satellite image processing	6	3	yes	100	80	100	being performed	end of the first teaching year
2.03	Remote sensing technologies and applications	5	2	yes	100	70	100	being performed	end of the first teaching year
2.04	Web technologies for geo-portal and geo-services	6	3	yes	70	30	-	being performed	end of the first teaching year
3.01	Using of SENTINEL 1-2-3 imagery for agricultural field monitoring (elective)	4	2	yes	80	50	-	-	-
3.01	Global Navigation Satellite Systems (NAVSTAR, GLONASS, GALILEO, etc.) (elective)	4	3	yes	50	20	-	-	-
3.03	Precision agriculture basics and technologies (elective)	3	2	yes	50	20	-	-	-
3.03	Advanced Methods for Geospatial Analysis (QGIS, GRASS, PostGIS DB) (elective)	3	2	yes	50	20	-	-	-



New Courses (Curricula of MA programs: 5A330205 - Geoinformation systems and technologies)

Title of the possible new course	Name of the person(s) responsible for developing + email	ECTS and hours for lecture/practical work	Teaching materials that will be used
Remote sensing technologies and applications	Allamuratova Zamira Atadjanova Nozima zamira.lars@gmail.com natadjanova@bk.ru	5 credits, total 150 h. 45h lectures, 105h. independent work	Remote sensing techniques Satellite image formation Spatial resolution GIS Geo-visualization GIS Advanced Methods for Geospatial Analysis Using GIS and SENTINEL1-2-3 imagery for agricultural field monitoring
Satellite image processing	Kuchkorov Temurbek Rakhimov Mekhriddin Allamuratova Zamira timanet4u@gmail.com raximov022@gmail.com zamira.lars@gmail.com	6 credits, total 180h. 30h lectures, 30h practice 120h. independent work	Computer vision, Spatial resolution analysis. GIS. Data processing and adjustment, Processing of remote sensing data obtained from satellites, Spatial databases and infrastructures Space Geodetic Techniques
Web technologies for geo-portal and geo-services	Djumanov Jamoljon Kuchkorov Temurbek Ilyos Khujayarov jamoljon@mail.ru timanet4u@gmail.com	6 credits, total 180h. 30h lectures, 15h practice 15h laboratory 120h. independent work	Web technologies basics Library of web technologies for geo-portal Leaflet JavaScript library for mobile-friendly interactive maps Creating geo-services, back-end programming



New Courses (Curricula of MA programs: 5A330205 - Geoinformation systems and technologies)

Title of the possible new course	Name of the person(s) responsible for developing + email	ECTS and hours for lecture/practical work	Teaching materials that will be used
Global Navigation Satellite Systems (NAVSTAR, GLONASS, GALILEO, etc.) (elective)	Khabibullo Nosirov Dilmurod Davronbekov Umida Aripova n.khabibullo1990@gmail.com om	6 credits, total 180h. 30h lectures, 15h practice 15h laboratory 120h. independent work	Satellite navigation system, Types of satellite navigation systems; Review of global and regional satellite systems; Regional Satellite-based Augmentation Systems; GNSS architecture. Basic GNSS Concepts. GLONASS (Global Navigation Satellite System, Russia): Overview of the components of the system: Space segment, Control segment, User segment; Modernization. and other systems
Using of SENTINEL 1-2-3 imagery for agricultural field monitoring (elective)	Kuchkorov Temurbek Rakhimov Mekhriddin Allamuratova Zamira timanet4u@gmail.com raximov022@gmail.com zamira.lars@gmail.com	6 credits, total 180h. 30h lectures, 15h practice 15h laboratory 120h. independent work	Introduction into spatial data analysis using satellite data; SENTINEL1-2-3 imagery for agricultural field monitoring; Global Land Services platform; Working with SNAP; Tools for processing SENTINEL 1-2-3 imagery.
Precision agriculture basics and technologies (elective)	Djumanov Jamoljon Kuchkorov Temurbek O'tkir Mardiyev jamoljon@mail.ru timanet4u@gmail.com	4 credits, total 120h. 30h lectures, 15h practice 75h. independent work	Precision agriculture – characteristics; Precision agriculture technologies; Economic efficiency; optimal use of resources.



Courses to update

Title of the existing course to update	Name of the person(s) responsible for update + email	ECTS and hours for lecture/practical work	Teaching materials that will be used	How will the teaching materials improve the existing course? What will be new in the course due to the teaching materials?	% of readiness of the course
<p>Curricula of MA programs: 5A330501 Computer engineering Training period 2019-2021 academic year (Applied applications design)</p> <p>Geoinformation Systems</p>	<p>Djumanov Jamoljon jamoljon@mail.ru</p>	<p>6 credits, total 180h. 30h lectures, 15h. practice, 135h. independent work</p>	<p>Geographical Information System (GIS Internet, Mobile, and Distributed GIS), (GIS Advanced Methods for Geospatial Analysis) Using software applications and open libraries</p> <ul style="list-style-type: none"> • ArcGIS • QGIS • GRASS • PostGIS DB • using OGC <p>Methods of manual and automatically processing scheme of satellite data</p>	<p>30% improve the module content. Advanced Methods for Geospatial Analysis. Using different advanced applications, open source libraries to create, and analysis satellite data. Processing algorithms of satellite data, high-tech sensors, and using GPS systems.</p>	<p>60%</p>
<p>Curricula of MA programs: 5A330501 Computer engineering Training period 2019-2021 academic year (Computer system design)</p> <p>Computer vision</p>	<p>Kuchkorov Temurbek timanet4u@gmail.com</p>	<p>4 credits, total 120h. 30h lectures, 90h. independent work</p>	<p>Image processing approaches: image classification and segmentation, AI – Machine learning – Deep learning, Object and motion detection, Object classification, GIS-Geovisualization</p>	<p>40% improve the module content. Using different image processing methods. Image classification, semantic and instance image segmentation. Using machine-learning algorithms for image classification. Object detection. Neural networks and deep learning algorithms for image processing</p>	<p>50%</p>



Dissemination plan (2020)



«Approved»
 Rect. of TUIT named after
 Muhammad al-Khwarizmi
 T. Teshabaev

Dissemination plan (2nd year)
 for result of European Program Erasmus+ Project by
 597985-EPP-1-2018-1-KZ-EPPKA2-CBHE-JP

New and Innovative Courses for Precision Agriculture (NICOPA) in TUIT

№	Dissemination event	Implementation date
1	Project activities announcement in web site of university (tuit.uz) and social networks (Telegram channel, Facebook)	Regularly
2	Publication project related thesis in Republican scientific and technical conference "The importance of information and communication technology in the innovative development of the sectors of the economy"	March-April, 2020 y.
3	Project dissemination in Educational-methodological council of TUIT	August, 2020 y.
4	Methodical seminar for teachers according to the pilot teaching	August - September 2020 y.
5	Information about project achievements in journal "Xabar" and publication paper (thesis) in conference	October-November, 2020 y.
6	Explore the NICOPA project activities through social network	Regularly
7	Providing meetings and roundtable discussions with students, teachers and administrative staffs	Regularly

Local project coordinator

T. Kuchkorov

DISSEMINATION EVENTS-1 (THAT ARE NOT MENTIONED IN REPORT 12M/ FROM NOVEMBER 2019 TILL MAY 2020)

№	Question	Answer
1	How many dissemination events were conducted?	5
2	How much and which new dissemination materials were produced (leaflets, brochures, flyers etc)?	"Implementation NICOPA with new Master Program in TUIT" titled leaflet is under the process (September 2020).
3	Report on the dissemination of the information about the project in mass media	https://drive.google.com/drive/folders/1yWBHN54P_gKUaFLtXN3XRI5zSLNJ9NU3
4	Planned dissemination activities	https://drive.google.com/drive/folders/1yWBHN54P_gKUaFLtXN3XRI5zSLNJ9NU3

DISSEMINATION EVENTS-2 (THAT ARE NOT MENTIONED IN REPORT 12M/ FROM NOVEMBER 2019 TILL MAY 2020)

№	Date	Title	Target Audience (list of target groups)	Number of participants	Is there a press release of the event (YES/NO), IF YES, provide it?
1	23.06.2020	Department meeting for 2019/2020 teaching year report	Professors of "Computer systems" department	20	Protocol #27
2	24.06.2020	"Opened new master program in TUIT"	Students and Teachers, Administrative staff	2,658 subscriber	Telegram channel "TATU Rasmiy kanal" - https://t.me/tuituz_official
3	24.06.2020	"Opened new master program in TUIT"	All type of users		Official web sites: http://tuit.uz http://mitc.uz http://qalampir.uz

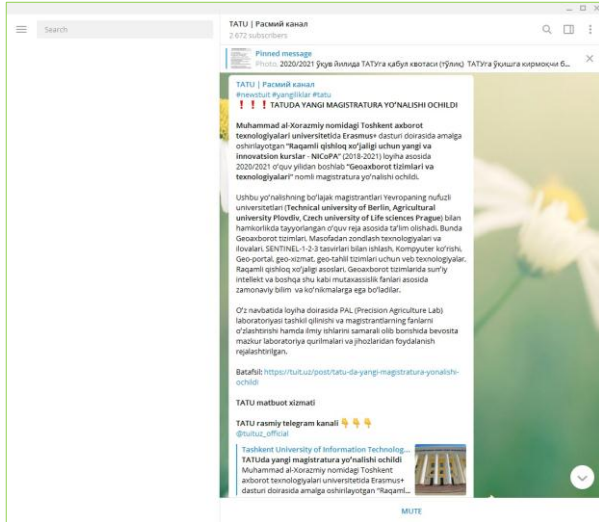


Schedule of dissemination events (2020)

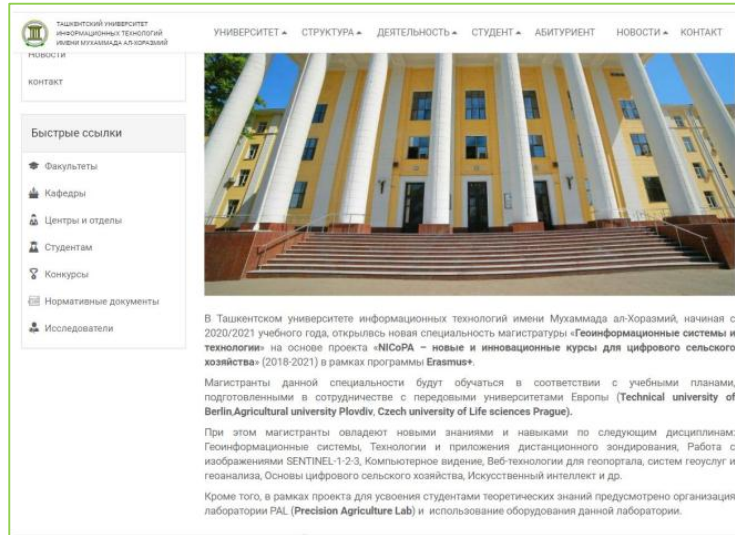
#	Dissemination event	Implementation date
1	Project activities announcement in web site of university (tuit.uz) and social networks (Telegram channel, Facebook)	Regularly
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6	Explore the NICOPA project activities through social network	Regularly
7	Providing meetings and roundtable discussions with students, teachers and administrative staffs	Regularly



Dissemination (in social network and internet) - 2020



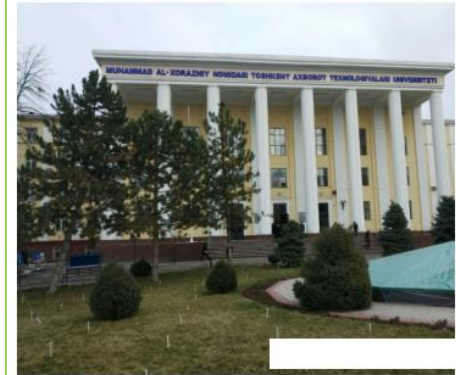
https://t.me/tuituz_official



<https://tuit.uz/post/tatu-da-yangi-magistratura-yonalishi-ochildi>

TATUda yangi magistratura йўналиши очилди

Жаннат 26 Июнь 2019 3319



Жорий ўқув йилидан бошлаб Мухаммад ал-Хоразмий номидаги Тошкент ахборот технологиялари университетига магистрантлар учун янги йўналиш оchildi.

Тошкент ахборот технологиялари университетига Эрасмус- дастури доирасида амалга оширилётган "Рақамли қишлоқ хўжалиги учун янги ва инновацион курслар - NICOPA" лойиҳа асосида 2020-2021 ўқув йилидан бошлаб "Геохаброт тизимлари ва технологиялари" магистратура йўналиши

<https://qalampir.uz/news/tatuda-yangi-magistratura-yonalishi-ochildi-22270>

11.07.2020

TATUda yangi magistratura йўналиши очилди | Qalampir.uz



Маълумотларга кўра, ушбу йўналишдаги бўлажак магистрантлар Европанing нуфузли университетлари (Technical university of Berlin, Agricultural university Plovdiv, Czech university of Life sciences Prague) билан ҳамкорликда тайёрланган ўқув режа асосида таълим олишади.

Бунда Геохаброт тизимлари, Масофадан зондлаш технологиялари ва лойалари, SENTINEL-1-2-3 тасвирлари билан ишлаш, Компютер кўриқши, Геопортал, геохизмат, геотехлик тизимлари учун веб технологиялар, Рақамли қишлоқ хўжалиги асослари, Геохаброт тизимларида сун'ий интеллект ва бошқа шу каби мутахассислик фанлари асосида зamonaviy bilim ва кўникмаларга эга бўлишади.

<https://qalampir.uz/news/tatuda-yangi-magistratura-yonalishi-ochildi-22270>

Dissemination (Meeting of “Computer systems” department Development syllabi for modules of new Master program (Protocol #27, 23.06.2020))

Мухаммад ал-Хоразмий номидаги
Тошкент Ахборот Технологиялари Университетининг
Компьютер инжиниринги факултети
«Компьютер тизимлари» кафедраси профессор – ўқитувчилари
ингилишнинг 27 – сонли баённомасидан
К У Ч И Р М А

Тошкент ш. 23.06.2020 й.

ҚАТНАШДИЛАР:

Раис: кафедра мудири т.ф.д. Джуманов Ж.Х.

Профессор-ўқитувчилар: Профессор М.Мусаев, доцент Ш.Н.Акбарходжаев, доцент З.З.Миросупов, доцент А.А.Каххоров, доцент А.Б.Якубов, доцент А.И.Назаров, доцент К.Абдурашидова, доцент (PhD) Т.Кучкаров, доцент Ф.Рахматов, доцент (PhD) М.Рахимов, доцент (PhD) З.Алламуратова, катта ўқитувчи К.Э.Шукуров, катта ўқитувчи Н.А.Сайфуллаева, ассистент Н.С.Атаджанова, ассистент У.Берданов, ассистент М.Очилов, ассистент Н.Мирзанова, ассистент С.Ибрагимова, ассистент С.Довлетова, таянч докторант И.Хўжаев, таянч докторант М.Абдуллаева, жами 21 та.

ТУРЛИ МАСАЛАЛАР:

1. 5A330205 – Геоахборот тизимлари ва технологиялари мутахассислиги бўйича 1 ва 2 курс магистрлар учун ўтиладиган фанларга намунавий фан дастури, ишчи дастур ва силлабусларни тайёрлаш муҳокамаси.

ЭШИТИЛДИ:

Шу масала юзасидан т.ф.д., проф. Ж.Джуманов сўзга чиқиб, “Компьютер тизимлари” кафедрасида Erasmus+ дастурининг “NiCoPA” лойиҳаси доирасида янги магистратура 5A330205 – Геоахборот тизимлари ва технологиялари мутахассислиги очилганлиги ҳақида гапирди ва янги мутахассислик учун зарур бўлган ҳужжатлар (малака талаблари, ўқув режа, асоснома, солиштирма таҳлил ва х.к.) ўз вақтида ўқув бўлимига топширилганлигини ҳам таъкидлаб ўтди.

5A330205 – Геоахборот тизимлари ва технологиялари мутахассислиги бўйича 1 ва 2 курс магистрлар учун ўтиладиган фанлар, фан учун масъул ўқитувчилар билан таништирди (1-жадвал).

1-жадвал. 5A330205 – Геоинформацион тизимлар ва технологиялар

№	Фан номи	Блок номи ва семестр	Масъул ўқитувчи	Ассистент
1-курс				
1	Геоахборот тизимлари ва пловаларни ишлаб чиқиш	1-семестр	Джуманов Ж.Х.	Алламуратова З.Ж. Зохиров К.И. Мирзанова Н.М.
2	Satellite image processing	1-семестр	Кўчкаров Т.А.	Алламуратова З.Ж.
3	Remote Sensing Technologies and Applications	2- семестр	Джуманов Ж.Х. Кўчкаров Т.А.	Алламуратова З.Ж.
2-курс				
4	Супьий интелект ва нейрон тармоқлари	3-семестр	Мусаев М.М.	Кўчкаров Т.А. Рахимов М.Ф.
5	Web technologies for geoportals and geo-services	3-семестр	Кўчкаров Т.А.	Рахимов М.Ф.

Шунингдек, асосий фанлар учун намунавий фан дастури яратиб, намунавий фан дастурига мувофиқ ишчи дастурлар киши лозимлиги, ҳар бир ишчи дастурлар асосида силлабуслар тайёрланиши зарурлиги айтилди. Ўз навбатида ҳар бир фан дастури учун ички ва ташқи тақризларни олиш лозимлигини ҳам айтиб ўтди.

ҚАРОР ҚИЛИНДИ:

1. Янги ўқув йили учун 5A330205 – Геоахборот тизимлари ва технологиялари мутахассислиги бўйича 1 ва 2 курс магистрлар учун ўтиладиган фанлардан намунавий дастур, ишчи дастур ва силлабуслар тайёрлансин (1-жадвал).

Мажлис раиси

Котиба



Джуманов Ж.Х.

Атаджанова Н.С.



Non-academic partner organizations

No	Name of Organization	Contact details
1	SE “Institute of Hydrogeology and Engineering geology”	100041, Tashkent, M.Ulugbek District, Olimlar Str, 64-a Phone: +998 71) 262-75-92 hydrouz@olam.uz
2	"Unitek Standart" MЧЖ	100 000, M.Ulugbek District, Mustaqillik Str, 68 Phone: +998 71 286 2027 unitekstandart@mail.ru



Development of teaching materials

№	Title of the materials	Type (manuals/text books/methodological recommendations)	Estimated date of the development of the digital versions-drafts (.doc files)
1	Manual for subject “Geoinformation systems”	Manual	Manual (in Uzbek language) is prepared
2	Manual for subject “Satellite image processing”	Manual	15.09.2020
3	Methodological recommendation for practical works for subject “Remote sensing technologies and applications”	Methodological recommendations	30.11.2020
4	Manual for subject “Web technologies for geo-portal and geo-services”	Manual	20.12.2020



Quality assurance of the new courses

Course №	Course title	Peer reviewers (Name, position, organization)
2.01	Manual for subject “Geoinformation systems”	1. S.Xushvaqov – docent, PhD in technical science head of laboratory, Institute “GIDROINGEO”. 2. Z.Allamuratova – PhD, associate professor of department “Computer systems”, TUIT named after Muhammad al-Khwarizmi.
2.02	Work plan of subject “Satellite image processing”	1. R.Oteniyazov – DSc, dean of faculty, Nukus branch of TUIT named after Muhammad al-Khwarizmi. 2. M.Rakhimov - PhD, associate professor of department “Computer systems”, TUIT named after Muhammad al-Khwarizmi.
2.03	Work plan of subject “Remote sensing technologies and applications”	1. D.Utebaev – DSc, head of department “Applied mathematics”, Karakalpak state university 2. J.Usmonov - PhD, associate professor of department “Information technologies”, TUIT named after Muhammad al-Khwarizmi.



Peer review

Мухаммад ал-Хоразмий номидаги Тошкент Ахборот Технологиялари Университети «Компьютер инжиниринги» факультети «Компьютер тизимлари» кафедраси ўқитувчилари т.ф.д., Ж.Х.Джуманов, ассистент К.Р.Зоҳиров ва ўқитувчи – стажёр Н.М.Мирзанодалар муаллифлигида “Геоахборот тизимлари” фани бўйича ўқув қўлланмасига берилган

ТАҚРИЗ

Хозирги вақтда геоахборот тизимларининг ривожланиши тобора ошиб бормоқда. Америка, Канада, Германия, Хитой ва Ҳиндистон каби ривожланган давлатларда ушбу соҳанинг тадқиқ этишлик даражаси анча юқори ҳисобланади.

Республикамизда олиб борилаётган бозор иқтисодиёти муносабатларини босқичма-босқич изчиллик билан амалга оширилиши турли хил маълумотларни бошқаришни оsonлаштириш, ахборотларни ҳудудий жиҳатидан ўрганишни таъминлашда турли хил ахборот тизимларига талаб ортиб бормоқда. Шунини эътиборга олган ҳолда, мулк ва табиий ресурслар тўғрисидаги қўн қиррали ахборотларни ўзида жамлаган геоахборот тизимини жорий қилиниши, геоахборот тизимларининг тақомиллаштирилишига эътиборни орттирди. Бу эса геоахборот тизимларининг, яъни географик ахборот тизимларининг (ГАТ) аҳамияти жуда юқори эканлигини ва бақариладиган ишларни самарасини ошишини таъминлайди.

Геоахборот тизимларининг долзарб эканлигини ҳисобга олган ҳолда мамлакатимизда ҳам бунга алоҳида эътибор қаратилган. Бу йўналиш бўйича мутахассислар тайёрлаш ёки талабаларга Геоахборот тизимлари фани чуқур ўргатишдан ҳаммининг манфаатдорлиги таъминланади. Ушбу фан мутахассислик фани ҳисобланиб, ишлаб чиқаришда алоқа – коммуникация, геология, география, геодезия, картография, ер тузиш ва ер кадастри соҳасининг ажралмас бўғинидир. Ушбу фанининг ўқитишдан мақсад – талабаларга замонавий геонформацион технологиялари ва уларнинг тапқиллий асослари ва амалиётта тадқиқлари бўйича билим, қўнқма ва малакаларини шакллантиришдир.

Ушбу ўқув қўлланмада Геоахборот тизимлар фанидан ўтқиладиган маърузалар, матнлари, ArcGis дастурий муҳити бақарилиши режалаштирилган амалий машғулотларни бақариш бўйича усул ва воситалар ҳам келтириб ўтқилган.

Ушбу ўқув қўлланма барча меъёрлий талабаларга мос келади ва уни ушбу фанини ўқитиши жараёнида, ҳамда, чоп қилиш учун услубий кенгашта тавсия қиламан.

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ТАҚРИЗ

Ахборот технологиялари ривожланган сари улар ҳаётимизни ҳамма томонларини ўзгартириб юборапти. Геоахборот тизимлари эса қадимдан ривожланиб келётган география, геодезия, картография каби фанлар ва қўнқма соҳаларга ўз таъсирини кўрсатмоқда. Ушбу соҳалар таърибаси, аъналари, гоъларига тавниб янги вужудга келётган фан ва технологиялар ўз навбатида уларнинг ривожланишига ҳам хисса қўшмоқда. Геоахборот тизимлар тез ва соз, аниқ ва тўлиқ маълумот билан таъминлаб ҳудудий ва минтақавий ривожланишни идора қилишда, тегишли қарор қабул қилишда ниҳоятда муҳим ўрин тутмоқда. Геодезия, картография ва кадастр эса ўз вазифаларини ечишда Геоахборот тизимларининг афзаллигида кенг фойдаланиб келмоқда. Шу сабабли замонавий геоахборот тизими фанини, унинг илмий, назарий ва амалий асосларини ўрганишдан иборат. Геоахборот фани бўйича таълим олаётган талабалар ушбу қўлланмадан геоахборот тизимининг илмий томондан қўлланлиши, геодезия, картография, ер ресурсларини бошқариш ва бошқа тармоқларда геоахборот соҳасини ўз илмий ишларида тадқиқ этиш, билим ва қўнқмаларини олишда фойдаланиши мумкин. Бундан ташқари ўқув қўлланма геоахборот соҳасининг асосий вазифалари ҳисобланган маълумотларни киритиш, қайта ишлаш, сақлаш ва фазовий маълумотлар кўринишидаги тасвирларни тасвирлашдаги қўнқмаларини оширишда катта ёрдам беради.

Ушбу фанининг ўқитишдан мақсад – талабаларга замонавий геонформацион технологиялари ва уларнинг тапқиллий асослари ва амалиётта тадқиқлари бўйича билим, қўнқма ва малакаларини шакллантиришдир. Геоахборот тизимлари фани чуқур ўргатишдан ҳаммининг манфаатдорлиги таъминланади. Ушбу фан мутахассислик фани ҳисобланиб, ишлаб чиқаришда алоқа – коммуникация, геология, география, геодезия, картография, ер тузиш ва ер кадастри соҳасининг ажралмас бўғинидир.

Ушбу ўқув қўлланма барча меъёрлий талабаларга мос келади ва уни ушбу фанини ўқитиши жараёнида, ҳамда, чоп қилиш учун услубий кенгашта тавсия қиламан.

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Equipment & Software

Equipment/Software	Name of the person(s) responsible for the equipment/software installation	Occupation of the responsible persons	Contact information of the responsible persons
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Communication

For communication following technics are using:

- E-mail, Skype, ZOOM, IMO, Telegram, WhatsApp (with EU, CA and UZ partners),
- Telephone (with UZ partners)

There are no problems with communication





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Thank you for you attention!



Co-funded by the
Erasmus+ Programme
of the European Union

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