

Periodical Report
18 Months of project
implementation

New and Innovative Courses for Precision Agriculture



Turkmen State Architecture and Construction Institute

Y. Myradov, TSACI, Berlin, Germany.
August 2020 y.

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

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



PROJECT ACTIVITIES – FROM NOVEMBER 2019 TILL MAY 2020

Table 1. ACTIVITIES IMPLEMENTED THAT ARE NOT MENTIONED IN REPORT 12M (From November 2019 till May 2020)

	Question	Answer
1	<p>Please, name activities and short description of their deliverables your university implemented so far according to the project work plan.</p> <p>Please, describe activities and their results specifically for each of the Work Packages (WP1-WP5)</p>	<p>The university has implemented the following activities (+ short description of their deliverables) according to the work plan:</p> <p>WP1 Preparation: Earlier, a list of courses we plan to upgrade was compiled. According to this plan, the curricula of 9 disciplines in the national language were modernized. Accreditation of updated disciplines is currently underway.</p> <p>WP2 Development: 2 teachers of the institute took short courses at EU universities. These teachers are actively working on the development and publication of new textbooks, guides to new curricula. Upon completion of lectures, practical and laboratory work, presentations and video lessons, these educational materials are uploaded to the Institute's digital-electronic educational platform. Work was done on the preparation of organizational documentation for PASO.</p> <ul style="list-style-type: none"> - A room has been prepared for the installation of equipment, - Agreed equipment list for Labs and PASO - Prepared criteria for the selection of teachers to participate in trainings at EU universities. - Participation in studies at EU universities - Participation in the training of teachers of new curricula and methodology



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1	<p>Please, name activities and short description of their deliverables your university implemented so far according to the project work plan.</p> <p>Please, describe activities and their results specifically for each of the Work Packages (WP1-WP5)</p>	<p>WP3 Quality Control: A quality group has been created that is responsible for the quality level of each new or upgraded module.</p> <ul style="list-style-type: none"> - Quality indicators have been developed to assess the quality level of each new or upgraded module in the target area. - Developed questionnaires for peer review. <p>WP4 Distribution: - Questionnaires were developed for students and teachers of the institute regarding the level of awareness of the NICOPA project among them. A search will be made for universities and non-academic partners and organizations outside the project that may be interested in the project results.</p> <ul style="list-style-type: none"> - Signed NICOPA plus agreement with non-academic partners - Preparation of publications for the local newspaper, and the Ashgabat television channel. - A brochure about the project has been prepared. <p>WP5: Coordination meetings are being organized, preparation of a schedule and minutes of coordination meetings</p>




NEW/UPDATE COURSES


Course №	Title of the course	ECTS	Name of the person(s) responsible for update+ email	Estimate the percentage of course development
Course 1	Geoinformation	-	P. Bashimov, N. Nikolayev atageldi2041@gmail.com	Completed
Course 2	Engineering geodetic studies	-	N. Ozbekov, A. Durdyeva, P. Basimov atageldi2041@gmail.com	Completed
Course 3	Geodetic measurement theory of calculation of results	-	P. Bashimov atageldi2041@gmail.com	Completed
Course 4	Geodesic astronomy	-	G. Annayeva atageldi2041@gmail.com	Completed
Course 5	Cartography	-	P. Bashimov atageldi2041@gmail.com	Completed
Course 6	Photogrammetry	-	N. Ozbekov, G. Ballyyev atageldi2041@gmail.com	Completed
Course 7	Topography	--	M. Ishanov, Y. Myradov atageldi2041@gmail.com	Completed
Course 8	Geodysic equipment	-	P. Bashimov, A. Garajayev atageldi2041@gmail.com	Completed
Course 9	Space geodesy	-	P. Bashimov atageldi2041@gmail.com	Completed



Curricula descriptions


“Tassyklaryn”
Türkmenistanyň Ministrler Kabinetiäniň
Başlygynyň Orunbasary P. Agamyrazow
2019-njy ýylyň “26” 28

TÜRKMENISTANYŇ BILIM MINISTRRLIGI
**TÜRKMEN DÖWLET BINAGÄRLIK-
GURLUŞYK INSTITUTY**
OKUW MEÝILNAMASY


“Tassyklaryn”
Türkmenistanyň Ministrler Kabinetiäniň
Başlygynyň Orunbasary Ç. Purçekow
2019-njy ýylyň “26” 28

Ugur: 2.08.00.00. Gurluşygyň tehnikasý we tehnologiýalary
Hünär: 2.08.05.15. Amaly geodeziýa

Kär: geodeziýa inženeri

Okuwý möhleti: 5 ýyl

Okuw ýyly	Sentýabr				Oktýabr				Noýabr				Dekabr				Ýanwar				Fevral				Marti				April				Maý				Iýun				Iýul				Awgust									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A						
2																																																						
3																																																						
4																																																						
5																																																						

Nazary okuw
 Hepdede bir gün harby taýarlyk
 Synag döwri
 Diplomyň 66 ýanyndaky tejribeligi geçmek bilen diplom taslamasyny ýerine ýetirmek
 Dyrň alyp
 Mugallymlaryň gizeççiliginde tejribelik geçmek
 Döwlet synaglary
 A Atalyk jemleme
 HT Harby taýarlyk boýunça türgenleşik okuwý

T/b	Dersiň ady	Ýarymýýllar boýunça paýlanylyşy		Sagat sany							Ýyllar we ýarymýýllar boýunça paýlanylyşy																														
		Synaglar	Häsipler	Nazary taýarlyk			Umumy okuw	Amaly sapaklary	Tejribe sapaklary	Sähbat sapaklary	Tejribe işleri	1					2					3					4					5									
				Hermeti	Umumy okuw	Amaly sapaklary						1-nji ý.ý. 18 hepde	2-nji ý.ý. 16 hepde	3-nji ý.ý. 18 hepde	4-nji ý.ý. 16 hepde	5-nji ý.ý. 18 hepde	6-njy ý.ý. 16 hepde	7-nji ý.ý. 18 hepde	8-nji ý.ý. 16 hepde	9-10 ý.ý. 18 hepde	10-njy ý.ý. 16 hepde																				
I. Umumy ynsanperwerlik we durmuş-ykdysady dersler toplumu																																									
1	Türkmenistanyň taryhy		1		36	18			18		2																														
2	Sanly ykdysadyýet		2		32	16		16				2																													
3	Türkmenistanyň kanunçylygynyň esaslary		3		72	36			36				4																												
4	Filosofiya		4		64	32			32					4																											
5	Syýasaty öwreniş		5		36	18			18																																
6	Ykdysady teoriýa		6		64	32			32																																
7	Psihologiýanyň we pedagogikanyň esaslary		7		36	18			18																																
8	Häzirkiki zaman türkmen jemgyýeti	10ds	8,9		84	50			34																																
9	Bedenterbiýe		1,2,3,4		136			136				2	2	2	2																										
1-nji toplam boýunça jemi:			13		560	220		136	16	188	0	4	4	6	6	2	4	2	3	2																					



Curricula descriptions

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
II. Umumy matematiki we tebigy-lymy dersler toplamy																				
10	Häzirki zaman kompýuter tehnologiýalary	2	1		102	34		68			3	3								
11	Ýokary matematika	1,4	2,3		358	172	170	16			7	5	4	5						
12	Fizika	2	1		170	68	34	68			5	5								
13	Ekologiýa we daşky gursawy goramak		3		54	36			18			3								
2-nji toplum boýunça jemi:		4	5		684	310	204	152	18		15	13	7	5						
III. Umumy hünär dersler toplamy																				
14	Çyzawy geometriýa we inžener grafikasý		2b		80	32	48					5								
15	Kompýuter grafikasý		5		72	18		54							4					
16	Hünäri boýunça ilisi dili	4,6,8	1,2,3,5,7		272		272				2	2	2	2	2	2	2	2		
17	Hünäri boýunça rus dili		1,2,3,4		136		136				2	2	2	2						
18	Radioelektronikanyň esaslary		4		48	32		16						3						
19	Gurluşyk önümçiliginiň tehnologiýasy	5			72	36		36							4					
20	Öňümçiligi gurnamak we dolandyrmak	9			72	36	36													4
21	Pudsgyň ykdysadyýeti		9		72	36	36													4
22	Metrologiýa we standartlaşdyrma		9		72	18	18	36												4
23	Zihmeti goramak		9		72	36	36													4
24	Harby taýýarlyk	8ds			544										8	8	8	8		
3-nji toplum boýunça jemi:		5	15		1512	244	582	142	0		4	9	4	7	18	10	10	10	10	16
IV. Ýeňte hünär dersler toplamy																				
25	Kartografik çyzuw	1			54	36	18				3									
26	Geomorfologiýa	1			72	36	36				4									
27	Geodeziýa	1,2,3,4		2i,4t	408	136	136	136			6	6	6	6						
28	Ähtimallyklar nazaryýeti we matematiki statistika	2			64	32	32					4								
29	Aerokosmik kartalaşdyrmalar	3			54	36	18						3							
30	Geodezik abzallar	3		3i	108	36	36	36					6							
31	Geodezik ölçeme netijelerini hasaplama nazaryýeti	4	3b		168	68	68	32					4	6						
32	Topografik kartalaşdyrmalary awtomatlaşdyrmak		4b		96	32	32	32						6						
33	Inženerçilik gözlegler	5		5i	72	36	36	36							4					
34	Amaly geodeziýa	5,6,7		6i	348	140	104	104							8	6	6			
35	Ýokary geodeziýa	6,7	5b		276	104	68	104							4	6	6			
36	Fotogrammetriýa	6	7	7i	204	68	68	68								6	6			
37	Kartografiýa	7	6		172	68	36	68									4	6		
38	Inženerçilik-geodezik işleri awtomatlaşdyrmak	8			96	32	32	32												6
39	Hemra ulgamlary	8			96	32	32	32												6
40	Ölçemeleri hasaplamagyň we barlamagyň häzirki zaman usullary		8.		80	32	16	32												5



Curricula descriptions

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		
41	Geografik mağlumatlar ulgamlary	8			96	32	32	32										6				
42	Älem geodeziýasy	9			108	36	36	36											6			
43	Geodezik astronomiýa	9			72	36		36												4		
44	Grawimetriýa	9			72	36		36												4		
45	Kadastryň esaslary	9			72	36		36												4		
4-nji toplum boýunça jemi:		25	6	6	2788	1100	800	888	0		13	10	19	18	16	22	24	23	18			
Hemmesi:		34	39	6	5544	1874	1722	1198	206		36	36	36	36	36	36	36	36	36	36	0	
Tejribelikler																						
Tejribeliğiň ady										Ýyllar we ýarymyýllar boýunça paýlanyşy												
I Okuw tejribeliği:																						
1	I geodezik okuw tejribeliği		2b		4 h x 36 s = 144 s					144	+											
2	II geodezik okuw tejribeliği		4b		4 h x 36 s = 144 s					144		+										
II Öňümçilik tejribeliği:																						
1	I geodezik öňümçilik tejribeliği		6b		4 h x 40 s = 160 s					160						+						
2	II geodezik öňümçilik tejribeliği		8b		3 h x 40 s = 120 s					120										+		
III Harby taýýarlyk boýunça türgenleşik okuw (oglanlar)																						
					14 gün x 10 s = 140 s					140							+					
IV Harby taýýarlyk boýunça türgenleşik okuw (oglanlar)																						
					21 gün x 10 s = 210 s					210										+		
V Diplomyň üç ýanyndaky tejribeliği geçmek bilen diplom taslamasyny ýerine ýetirmek																						
					16 h x 40 s = 640 s					640												40
Jemi:			4							1558											40	
Jemleýji mağlumatlar																						
1	Sagatlaryň jemi				7102	1874	1722	1198	206	1558	36	36	36	36	36	36	36	36	36	36	40	
2	Dersleriň sany				45						10	10	10	9	8	7	7	7	7	9		
3	Synaglaryň sany	34									4	4	3	4	3	4	3	4	3	4	5	
4	Hasaplaryň sany		43								6	7	7	6	4	3	3	3	3	4		
5	Ýyllyk taslamalarynyň (işleriniň) sany			6							1	1	1	1	1	1	1	1	1			

Hemmesi: 7102 sagat, olardan – nazary okuw 5544 sagat; tejribe taýýarlygy 1558 sagat.

Hemmesi: (Harby taýýarlyksyz): 6208 sagat, olardan – nazary okuw 5000 sagat; tejribe taýýarlygy 1208 sagat.



TEACHING MATERIALS

TEACHING MATERIALS				
No	Title of the materials	Type (manuals/text books/methodological recommendations)	Short description	Estimated date of the development of the digital versions-drafts (.doc files) ¹
1	Geoinformation	methodological recommendations	Layer-by-layer representation of alignment axes of contours and phenomena on maps	24.06.2020y.
2	Engineering geodetic studies	methodological recommendations	Full provision of topographic and geodetic materials and measurements; survey and design of engineering structures and buildings	24.06.2020y.
3	Geodetic measurement theory of calculation of results	methodological recommendations	Mathematical processing of the results of geodetic measurements in astronomical-geodetic and analytical networks	24.06.2020y.
4	Geodesic astronomy	methodological recommendations	Determination of astronomical coordinates of top-class geodetic network points	24.06.2020y.



TEACHING MATERIALS

5	Cartography	methodological recommendations	Study of all types and scales of cartographic products, ways of creating and publishing maps	24.06.2020y.
6	Photogrammetry	methodological recommendations	Depending on the types of aerospace images, methods of binding, obtaining stereo terrain models and further production	24.06.2020y.
7	Topographic mapping automation	methodological recommendations	Study of the applied geodetic instruments and methods of obtaining and processing computer measurement results	24.06.2020y.
8	Geodysic equipment	methodological recommendations	Types of devices, features and structure of optical, mechanical devices and places of their application	24.06.2020y.
9	Space geodesy	methodological recommendations	Study of the parameters and capabilities of spacecraft using the example of GPS and GNSS systems, and methods for determining the spatial coordinates of points on the earth's surface	24.06.2020y.



QUALITY ASSURANCE OF THE NEW COURSES

QUALITY ASSURANCE – Courses		
Course №	Course title	Peer reviewers (Name, position, organization)
Course 1	Geoinformation	1. A. Myradov, senior teacher, Ashgabat secondary Vocational construction educational school; 2. T. Oremedov, senior teacher, TSACI.
Course 2	Engineering geodetic studies	1. A. Murzayyeva lecturer, Ashgabat secondary Vocational construction educational school; 2. B. Serdarov, senior teacher, TSACI.
Course 3	Geodetic measurement theory of calculation of results	1. A. Murzayyeva lecturer, Ashgabat secondary Vocational construction educational school; 2. A. Gochakova, lecturer, TSACI.
Course 4	Geodesic astronomy	1. A. Myradov, senior teacher, Ashgabat secondary Vocational construction educational school; 2. T. Oremedov, senior teacher, TSACI.



QUALITY ASSURANCE OF THE NEW COURSES

Course 5	Cartography	<ol style="list-style-type: none">1. A. Myradov, senior teacher, Ashgabat secondary Vocational construction educational school;2. T. Oremedov, senior teacher, TSACI.
Course 6	Photogrammetry	<ol style="list-style-type: none">1. A. Murzayyeva lecturer, Ashgabat secondary Vocational construction educational school;2. G. Balyyev, lecturer, TSACI.
Course 7	Topographic mapping automation	<ol style="list-style-type: none">1. A. Murzayyeva lecturer, Ashgabat secondary Vocational construction educational school;2. G. Balyyev, lecturer, TSACI.
Course 8	Geodysic equipment	<ol style="list-style-type: none">1. A. Murzayyeva lecturer, Ashgabat secondary Vocational construction educational school;2. A. Gochakova, lecturer, TSACI.
Course 9	Space geodesy	<ol style="list-style-type: none">1. A. Myradov, senior teacher, Ashgabat secondary Vocational construction educational school;2. B. Serdarov, senior lecturer, TSACI.



IMPACT AND SUSTAINABILITY

DISSEMINATION EVENTS-1 (THAT ARE NOT MENTIONED IN REPORT 12M/ FROM NOVEMBER 2019 TILL MAY 2020)		
No	Question	Answer
1	How many dissemination events were conducted?	4
2	How much and which new dissemination materials were produced (leaflets, brochures, flyers etc)?	3 poster and 100 flayers
3	Report on the dissemination of the information about the project in mass media	Information about the project in mass media are mentioned in 12m.
4	Planned dissemination activities	Information about the project in mass media are mentioned in 12m.

Describe each of the dissemination events:

DISSEMINATION EVENTS-2 (THAT ARE NOT MENTIONED IN REPORT 12M/ FROM NOVEMBER 2019 TILL MAY 2020)					
No	Date	Title	Target Audience (list of target groups)	Number of participants	Is there a press-release of the event (YES/NO). If YES, provide it2
1	Information about the project in mass media are mentioned in 12m.				



IMPACT AND SUSTAINABILITY

NON-ACADEMIC PARTNERS (FOUND FROM NOVEMBER 2019 TILL MAY 2020)		
No	Question	Answer
1	Please, provide a list of non-academic partners and organizations outside the project, with which you maintain communication and which could be interested in hiring your graduates	<ul style="list-style-type: none">▪ Ministry of education;▪ Ministry of Construction and Architecture of Turkmenistan;▪ Ministry of Industry of Turkmenistan;▪ Research institute.
2	Please, provide information regarding the planned dissemination events for the interested in the project stakeholders, non-academic partners and organizations outside the project.	Organization of production practices at enterprises; Taking classes by specialists in the field of geodesy for students; Assistance from enterprises to participate with scientific works in competitions and exhibitions.
3	University – enterprise agreements	The agreement is concluded upon admission by students to the Institute





Thank you for you attention!



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Erasmus+ Programme
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