# HERiTAG WP2, Task 2.1

# Outline for the interdisciplinary curricula reform at master and bachelor levels in GIT, Tourism Economics and Cultural Heritage in Georgia planned within the framework of the HERiTAG project

Business Administration curricula at ISU, GTU and BSU have been undergoing significant changes over the recent period. Participation in the HERITAG project was met by particular enthusiasm since the program is expected to bring enormous advantages in terms of curricular restructuring and modification. Particular attention is paid to Tourism Management program as well as interdisciplinary integration with Geospatial Information Technologies (GIT) and Cultural Heritage fields. The underlying reason for substantial modification of the programs lies in the importance of the tourism industry which has strongest effect on the Georgian economy hence advancing various sectors through multiplier effect, taking into account the significant potential of exploiting the cultural heritage of the country, and enhancing the application of modern GIT instruments to underpin developments in both tourism and cultural heritage sectors.

While discussing the possible ways of future enhancement of respective programs, it was suggested to enrich the tourism content by ensuring technological shift which is a necessary precondition for successful integration of the ISU and GTU graduates into the tourism industry and vice versa, enhancing application of GIT state of the art tools. The implementation of the HERITAG project is expected to enable them to adapt Business Studies in general and Tourism Management program in particular to the new curricular framework with renewed content of GIT courses and restructured teaching and learning capabilities, including due respect to cultural heritage sector needs. This transformation is firmly believed to bring new opportunities to adjust the students’ skills sufficiently to their future professional needs in the tourism sector, while safeguarding cultural preservations, and advancing modern technology content in the curricula. Individual (interdisciplinary) and joint (interdisciplinary) reformation and adjustment of curricula in all three sectors/fields would have been the best outcome of HERiTAG effort in Georgia.

Under WP1 task 1.2 the social and intersectoral survey was conducted to reveal the attitudes and perceptions of the students and tourism industry, GIT and cultural heritage stakeholders towards the needs and opportunities in at the interface of cultural tourism, heritage and GIT. The data collected through the survey is a convincing argument in favour of the education and training reform needs on cultural heritage priorities and tourism business opportunities for the application of Geospatial Information Technologies in Georgia.

From the evidence provided by the survey and also curricular analysis of the tourism program and cultural heritage sector needs (see attached file), it has become clear that it is needed to catch up after certain delay in delivering the GIT education. It is also perceived that GIT represents an area of considerable prospects not only for Tourism and Cultural Heritage studies but also for Management program participants. Fort that reason, the new courses will be elaborated and introduced through HERiTAG framework, thus helping students acquiring subject area skills of spatial analysis, data storage and display, application of modern tools and instruments, including those to be procured under project, etc.

From this perspective, the following curricular reform strategies are being outlined for the respective universities:

1. **Ilia State University** and **Batumi State University** are intending to make their Master and Bachelor’s curricula in Tourism compatible with the current industrial requirements by introducing new elective courses in:
* Economics of Tourism
* GIS in Cultural Heritage and Tourism
* Introduction into open source GIS (advanced level)
* Introduction to web GIS (advanced level)
* Web Mapping and Applications (advanced level)
* 3D and Virtual Reality (advanced level)
1. **Georgian Technical University**

2.1 will make its Bachelor’s curricula in various GIT fields compatible with current technological and methodological requirements, adjusting its overall Geoinformatics, geodesy and in general GIT curricula (see attached existing set of syllabuses), introducing lecture series/heading in the fields acquired in the course of the HERiTAG projects, with emphasis on open source solutions in addition to proprietary solutions, such as:

* Advanced level GIS combining proprietary and open source solutions and methodologies (advanced level)
* Complementing existing web-GIS syllabus with HERiTAG Web Mapping and Applications package (basic level, upgrade with new items and in the syllabus, with new teaching materials)
* Mobile Mapping and Applications (basic level, upgrading existing GIT syllabus, utilising HERiTAG headings and teaching materials)
* 3D, Photogrammetry and Virtual Reality (basic level, upgrading existing GIT syllabus, utilising HERiTAG headings and teaching materials)
* Introduction into new instrumentation such as (i) terrestrial laser scanning (ii) Ground Penetrating Radar (GPR) and alike (basic level, upgrade of existing Geodesy syllabus).

2.2 will strive to develop its first masters course in GIT in an interdisciplinary manner, exploiting advancement of syllabus spectrum achieved with HERiTAG support, and introducing novel interdisciplinary grade, hopefully jointly with partner Universities specialised in tourism economics, cultural and natural heritage, including archaeology, by introducing syllabus and teaching materials at the masters levels, jointly with ISU and BSU, contributing in cooperation with both universities and NACHPG with GIT input into following jointly run master’s program under the aegis of GTTC:

* GIT in Tourism and its Economics
* GIT in Cultural Heritage and Tourism

Last but not least, developing the brand new concise masters course in the field of

* 3D Laser Scanning in Cultural Heritage and Tourism – Hardware and Software (advanced master level course, preferably interdisciplinary and jointly with partner universities and government agencies such as NACHPG).

On the whole, above mentioned universities setting out on the road to curricular reform in tourism programs have clear understanding of their future engagements in introducing new courses developed through the HERITAG project. Integration of the GIS contents in the Tourism programs will strengthen them and serve as a clear manifestation of innovative character of our programs.

Thus, we hope our curricular rearrangement will assist the students in meeting their future employers’ requirements. Also, they will acquire the skills that will lead them toward becoming considerable contributors to Tourism industry.