



INTERNATIONAL EUROPEAN UNIVERSITY

EDUCATIONAL AND PROFESSIONAL PROGRAM:

DIGITAL MARKETING

first (Bachelor) level

specialty: 075 Marketing

knowledge area: 07 Management and Administration

qualification: Bachelor of Marketing

APPROVED

**By the Decision of the Academic Council of
International European University**

dd. May 30, 2024, protocol No. 6

Chair of the Academic Council,

_____ Oleh PADALKA

Educational and professional program

**becomes effective by the Order of the Rector of
International European University**

dd. June 7, 2024, No. 41-OD

Kyiv - 2024

INTRODUCTION

The Digital Marketing educational and professional program of the first (Bachelor) level of higher education, specialty: 075 Marketing, is developed according to the Law of Ukraine On Higher Education dd. July 1, 2014, No. 1556-VII (as amended and supplemented), Resolutions of the Cabinet of Ministers of Ukraine: About Approval of the National Qualifications Frameworks dd. November 23, 2011, No. 1341 (as amended by the Resolution of the Cabinet of Ministers of Ukraine dd. June 25, 2020, No. 519), About Approval of Licensing Conditions for Conducting Educational Activities dd. December 30, 2015, No. 1187 (as amended), *the Order of the Ministry of Education and Science On Approval of the Higher Education Standard in Specialty: 075 Marketing for the First (Bachelor) Level of Higher Education dd. December 5, 2018, No. 1343 as amended (amendments are introduced according to the Order of the Ministry of Education and Science of Ukraine dd. May 28, 2021, No. 593).*

The educational and professional program stipulates the background for access to study, focus and key focus, the amount of ECTS credits required to gain a Bachelor's degree, the list of general and specialized (professional) competencies, the normative and variable content of student training specified in learning outcomes terms and requirements for higher education quality control.

The Digital Marketing educational and professional program is developed by the working group of the Department of Management, Finance and Business Administration of International European University, consisting of:

No.	Full name	Position	Academic degree, academic title
1	O.A. Kuzmenko (guarantor)	Associate Professor at the Department of Management, Finance and Business Administration	PhD in Economics, Associate Professor
2	R.V. Halenin	Associate Professor at the Department of Management, Finance and Business Administration	PhD in Economics
3	V.V. Pavlov	Professor at the Department of Management, Finance and Business Administration	Doctor of Economics, Associate Professor
Involved stakeholders			
No.	Full name	Job, position	
1	V.M. Pivnenko	Telecom Systems LLC, Sumy	
2	Y.V. Chuichenko	Bauma Ukraine LLC, Kyiv	
3	O.Y. Arkhipchenko	Big Dutchman-Ukraine LLC, Kyiv	
4	I.V. Remizov	BRISTOL ECO GROUP LLC	

1. Profile of the educational and professional program

Specialty: 075 Marketing

Knowledge area: 07 Management and Administration

Qualification: Bachelor of Marketing

1. General information	
Full name of the higher education institution and structural unit	International European University; Education and Research Institute “European Business School”; Department of Management, Finance and Business Administration
Degree of higher education and name of qualification in the original language	Bachelor Educational qualification – Bachelor of Marketing
Official name of the educational and professional program	Digital Marketing
Type of diploma and capacity of the educational program	Bachelor’s Degree Diploma, single, 240 ECTS credits, Period of study: 3 years and 10 months
Accreditation	Accredited
Cycle/level	NQF of Ukraine – 6 th level, FQ-EHEA – first cycle, EQF-LLL – 6 th level.
Background	<p>Complete general secondary education or the degree of Junior Bachelor, Professional Junior Bachelor (educational and qualification level of Junior Specialist).</p> <p>Based on the degree of Junior Bachelor (educational and qualification level of Junior Specialist), the higher education institution has the right to acknowledge and re-credit ECTS credits obtained as part of the previous educational program of training Junior Bachelors (Junior Specialists):</p> <ul style="list-style-type: none"> - specialties of the 07 Management and Administration knowledge area and 051 Economics specialty – no more than 120 ECTS credits; - other specialties – no more than 60 ECTS credits; - based on the degree of Professional Junior Bachelor, the higher education institution has the right to acknowledge and re-credit no more than 60 ECTS credits obtained as part of the previous educational program of professional pre-higher education. <p>Admission based on the degree of Junior Bachelor, Professional Junior Bachelor or Junior Specialist is conducted according to the results of external independent testing in the manner prescribed by the legislation.</p> <p>At least 50% of the amount of the educational program should be focused on general and specialized (professional) competencies in the specialty defined by the Higher Education Standard.</p>
Language(s) of instruction	Ukrainian, English
Validity of the educational and professional program	Until the next regular update

Internet address of constant placement of educational program description	https://business.ieu.edu.ua/navchannia/orhanizatsiia-osvitnoho-protsesu/osvitni-prohramy
2. Goal of the educational and professional program	
To train Bachelors of Marketing able to operate knowledge, abilities and skills in marketing activities and independently solve complicated professional tasks, which implies the use of conceptual scientific and practical knowledge, digital tools, approaches based on analytical, critical and creative thinking, aimed at increasing the efficiency of work of any organization in order to intensify Ukraine's integration into the European space with the implementation of sustainable development principles.	
3. Characteristics of the educational program	
Subject area (knowledge area, specialty)	07 Management and Administration 075 Marketing
Subject area description	<p>Object of study: marketing activities as a form of interaction between market participants to meet their economic and social interests.</p> <p>Learning objectives: to train Bachelors of marketing who have modern economic thinking and appropriate competences required to carry out efficient marketing activities.</p> <p>Theoretical content of the subject area: the essence of marketing as a contemporary business management concept; conceptual and categorical apparatus, principles, functions, concepts of marketing and their historical background; specific character of market players' activities in different areas and on different types of markets, market research and research of its participants, content of marketing activities, particularly commodity, pricing, sales and communication policies.</p> <p>Methods, techniques and technologies: general scientific and special methods, professional techniques and technologies required for efficient marketing activities.</p> <p>Tools and equipment: cutting-edge information and communication equipment, general-purpose and specialized information systems, software products applied in marketing to make managerial marketing decisions.</p>
Focus of the educational program	The educational and professional program is based on conceptual theoretical principles of leading scientific schools of management, economics, marketing, generalization of theoretical and practical experience in marketing activities, allowing providing specialists with relevant competencies on the labor market, which, in its synergistic combination of analytical and creative thinking, ensure an opportunity to build efficient professional career.
Key focus of the educational program	Training of marketing specialists able to take a systematic approach to the organization and efficient performance of marketing activities at the functional level by researching markets, planning commodity, pricing, sales and communication policies, the use of digital tools based on innovative methods, technologies, taking into account foreign experience, in order to implement the principles of balanced development, contributing to Ukraine's integration into the international space.

	Keywords: marketing, marketing activities, research, organization and planning of commodity, pricing, sales and communication policies, innovations, digital marketing, digital technologies.
Features of the educational and professional program	<p>Advanced learning and knowledge of contemporary applied marketing concepts of production, commodity, sales, innovative, digital, social and ethical, environmental, responsible, integral and holistic marketing aimed at solving real business problems. Proficiency in tools of organization, analysis, planning, efficiency and productivity, innovative and digital technologies, criteria for making efficient marketing decisions.</p> <p>On-the-job and pre-graduation practical training in the 3rd and 4th year at Ukraine's leading enterprises of different forms of ownership.</p> <p>Language of instruction: Ukrainian and English.</p>
4. Graduates' ability to employment and further study	
Employability	<p>3411 Dealers and Brokers; 3413 Real Estate Agents, Real Estate Traders; 3416 Purchaser; 3421 Trade Broker (Broker); 3429 Tax Agent, Advertising Agent, Television Program Administrator; 3436.1 Assistant to the Enterprise Manager (Institution and Organization); 3436.2 Assistant to the Production Department Manager, Assistant to the Manager of Another Main Department; 3436.3 Assistant to the Manager of a Small Enterprise without a Management Apparatus; 1452 Manager (Administrator) in Wholesale Trade; 1453 Manager (Administrator) in Retail Trade of Household and Non-Food Goods; 1453.1 Manager (Administrator) in Retail Trade of Household Goods and Their Repair; 1453.2 Manager (Administrator) in Retail Trade of Non-Food Goods; 1454 Manager (Administrator) in Retail Trade of Food Products; 1471 Manager (Administrator) in Real Estate Operations for Third Parties; 1473 Manager (Administrator) in Information Provision; 1475 Manager (Administrator) in Marketing; 1475.4 Manager (Administrator) in Foreign Economic Activity, Public Relations, Sales, Supply, Logistics, Administrative Activities; 1476.1 Manager (Administrator) in Advertising.</p>
Further study	A possibility to continue study at the second (Master) level of higher education. Acquisition of additional qualifications in the postgraduate education system.
5. Teaching and assessment	

Teaching and learning	<p>Modes of study: full-time, part-time.</p> <p>Teaching methods: lectures, practical classes, training sessions, implementation of interactive learning in the form of case studies and educational discussions on a given topic; performance of independent work; individual research and analytical activities of students: presentations, abstracts, test, calculation, analytical and situational assignments; seminars, consultations with lecturers; scientific conferences, on-the-job and pre-graduation practical training, accomplishment of Bachelor's thesis, its presentation and discussion during the pre-defense, involving lecturers and classmates.</p> <p>Teaching technologies: problem-oriented, practical, project, interactive, electronic learning in the Class Room system, self-learning.</p> <p>Approaches used in the training process: teaching and learning according to the program is based on student-centered, competence-based and methodological approaches to study.</p> <p>https://ie.u.edu.ua/pro-mieu/publiczna-informatsiia</p>
Assessment	<p>Assessment is one of the final stages of student educational activities and performance definition.</p> <p>Assessment of student progress is based on the European Credit Transfer and Accumulation System (ECTS).</p> <p>There are current and final assessments. Current assessment includes the assessment at practical classes and results of student independent work; final assessment includes exams, Pass/Fail tests, writing of reports on practical training, accomplishment of Bachelor's thesis, etc.</p> <p>https://ie.u.edu.ua/pro-mieu/publiczna-informatsiia</p>
6. Program competencies	
Program competencies	<p>Ability to solve complicated specialized tasks and practical problems in the marketing sector or during study, which implies application of appropriate theories and methods and is characterized by complexity and uncertainty of conditions.</p>
Program competencies	<p>GC 1. Ability to exercise your rights and obligations as a member of society, realize values of civil (democratic) society and need for its steady growth, supremacy of law, rights and freedoms of individuals and citizens in Ukraine.</p> <p>GC 2. Ability to keep and multiply moral, cultural, scientific values, as well as multiply achievements of society based on the understanding of history and regularities of subject area development, its place in the general system of knowledge about nature and society and in the evolution of society, engineering and technologies, as well as to use different types and forms of physical activity for outdoor activities and a healthy lifestyle.</p> <p>GC 3. Ability to abstract thinking, analysis and synthesis.</p> <p>GC 4. Ability to learn and acquire contemporary knowledge.</p> <p>GC 5. Distinctness and insistence regarding set objectives and taken responsibilities.</p>

	<p>GC 6. Ability to know and understand the subject area and professional activities.</p> <p>GC 7. Ability to apply knowledge in practical situations.</p> <p>GC 8. Ability to conduct research at the proper level.</p> <p>GC 9. Skills in applying information and communication technologies.</p> <p>GC 10. Ability to communicate in a foreign language.</p> <p>GC 11. Ability to work in a team.</p> <p>GC 12. Ability to communicate with representatives of other professional groups of different levels (with experts from other knowledge areas/types of economic activities).</p> <p>GC 13. Ability to work in the international context.</p> <p>GC 14. Ability to act in a socially conscious manner.</p>
<p>Specialized (professional, subject) competencies (SC)</p>	<p>SC 1. Ability to logically and consistently reproduce the acquired knowledge of the subject area of marketing.</p> <p>SC 2. Ability to critically analyze and generalize the regulations of the subject area of contemporary marketing.</p> <p>SC 3. Ability to use the theoretical regulations of marketing to interpret and predict phenomena and processes in the marketing environment.</p> <p>SC 4. Ability to carry out marketing activities based on the understanding of the essence and content of marketing theory and functional relations between its components.</p> <p>SC 5. Ability to correctly use marketing methods, techniques and tools.</p> <p>SC 6. Ability to conduct marketing research in different areas of marketing activities.</p> <p>SC 7. Ability to determine the impact of functional areas of marketing on the results of economic activities of market entities.</p> <p>SC 8. Ability to design marketing support for business development under conditions of uncertainty.</p> <p>SC 9. Ability to use marketing tools in innovative activities.</p> <p>SC 10. Ability to use marketing information systems when making marketing decisions and develop recommendations to improve their efficiency.</p> <p>SC 11. Ability to analyze the behavior of market entities and define the particularities of market functioning.</p> <p>SC 12. Ability to substantiate, present and implement the results of marketing research.</p> <p>SC 13. Ability to plan and carry out efficient marketing activities of a market entity in a cross-functional manner.</p> <p>SC 14. Ability to suggest advancements of marketing functions.</p>
<p>7. Program learning outcomes (PLO)</p>	
	<p>PLO 1. To show knowledge and understanding of the theoretical fundamentals and principles of marketing activities.</p> <p>PLO 2. To analyze and predict market phenomena and processes based on the application of fundamental principles, theoretical knowledge and applied skills of marketing activities.</p> <p>PLO 3. To apply acquired theoretical knowledge to solve practical marketing tasks.</p>

	<p>PLO 4. To collect and analyze necessary information, calculate economic and marketing indicators, substantiate managerial decisions based on the use of appropriate analytical and methodical tools.</p> <p>PLO 5. To identify and analyze the key characteristics of marketing systems of different levels, as well as the particularities of their entities.</p> <p>PLO 6. To identify functional areas of marketing activities of a market entity and their relations in the management system, calculate appropriate indicators characterizing the efficiency of such activities.</p> <p>PLO 7. To use digital information and communication technologies and software products required for the proper implementation of marketing activities and practical application of marketing tools.</p> <p>PLO 8. To apply innovative approaches to marketing activities of a market entity, adapt flexibly to changes in the marketing environment.</p> <p>PLO 9. To assess risks of marketing activities, define the level of uncertainty of the marketing environment when making managerial decisions.</p> <p>PLO 10. To explain information, ideas, problems and alternatives for managerial decision making to marketing specialists and non-specialists, representatives of different structural units of a market entity.</p> <p>PLO 11. To show the ability to apply an interdisciplinary approach and carry out marketing functions of a market entity.</p> <p>PLO 12. To show skills of independent work, flexible thinking, openness to new knowledge, be critical and self-critical.</p> <p>PLO 13. To be responsible for operating results, show entrepreneurial and managerial initiative skills.</p> <p>PLO 14. To perform functional responsibilities in a team, suggest sound marketing solutions.</p> <p>PLO 15. To act in a socially conscious manner based on ethical principles of marketing, respect for cultural diversity and civil society values, observing individual rights and freedoms.</p> <p>PLO 16. To meet the requirements for a modern marketing specialist, increase the level of personal professional training.</p> <p>PLO 17. To show written and oral professional communication skills in state and foreign languages, as well as the appropriate use of professional terms.</p> <p>PLO 18. To show a responsible attitude to moral, cultural, scientific values and social achievements in professional marketing activities.</p>
8. Resource support of program implementation	
Staffing	<p>The qualification of the academic staff engaged in the educational and professional program corresponds to the profile and area of the taught discipline. They have a verified level of scientific and professional activities, as well as are primarily full-time employees of International European University. Professionals with marketing/management/creative and specialty experience are involved in the organization of the educational process.</p>

Material and technical support	<p>The provision of training facilities and computer workplaces meets the need, in particular: training buildings; dormitories; specialized classrooms; specialized laboratories; computer classes; catering facilities; wireless Internet access points; multimedia equipment; gym, sports grounds.</p> <p>https://ie.u.edu.ua/pro-mieu/publiczna-informatsiia</p> <p>The material and technical support allows organizing and holding classes in all academic disciplines at the proper scientific and methodical level. Lectures are held using multimedia projectors; classrooms are fitted with computer equipment. Practical classes are held using information systems and software products applied in marketing, namely SPSS, Marketing analytic, Statistic, etc.</p>
Information, educational and methodical support	<ul style="list-style-type: none"> - IEU official website: https://ie.u.edu.ua/; - wireless Internet access points; - unlimited Internet access; - scientific library, reading rooms; - Moodle virtual training environment; - corporate e-mail; - University repository; - curricula and work plans; - schedules of the educational process; - educational and methodical materials of disciplines; - educational and working programs of disciplines; - didactic materials for student independent and individual work in disciplines; - practical training programs; - methodical guidelines for the performance of the qualifying paper; - knowledge assessment criteria; <p>The official website https://ie.u.edu.ua/ contains information about educational programs, training, scientific, teaching activities, structural units, admission rules, contacts.</p> <p>All teaching and learning materials are available to students in the reading room of the scientific library. The reading room is equipped with computers and wireless Internet access. All library resources can be found on the university website:</p> <p>https://ie.u.edu.ua/login/library.html.</p>
9. Academic mobility	
National credit mobility	<p>Based on the Regulations on the procedure for exercising the right to academic mobility of International European University (Order dd. February 2, 2021, No. 07/3-OD) on the basis of bilateral agreements between IEU and Ukrainian universities. Individual agreements on academic mobility to study and conduct research at Ukraine's universities and scientific institutions are allowed.</p> <p>Recognition of learning outcomes at other education institutions as part of academic mobility according to agreements of International European University.</p> <p>https://ie.u.edu.ua/pro-mieu/publiczna-informatsiia</p>

International credit mobility	<p>Based on the Regulations on the procedure for exercising the right to academic mobility of International European University (Order dd. February 2, 2021, No. 07/3-OD) on the basis of bilateral agreements between IEU and universities of partner countries, international conventions, agreements, memorandums and other current regulatory legal acts regulating these issues.</p> <p>Cooperation with Swiss Montreux Business School (SMBS) based on the Agreement on affiliated collaboration: https://business.ieu.edu.ua/?view=article&id=94:dogov-r-pro-sp-vrob-tnitstvo-z-shvejtsars-koyu-b-znes-shkolyu&catid=8</p>
Training of foreign students	<p>Can be provided according to the individual schedule, after learning the Ukrainian course.</p> <p>Training of foreign students is conducted according to legislative requirements and Admission rules of International European University. https://ieu.edu.ua/pdf/admission2020new.pdf</p>

2. LIST OF COMPONENTS OF THE EDUCATIONAL AND PROFESSIONAL PROGRAM AND THEIR LOGICAL SEQUENCE

2.1 List of components of the Digital Marketing educational and professional program

Discipline code	Components of the educational program (academic disciplines, practical training)	Number of credits	Form of final control
1	2	3	4
1. Obligatory components of the educational and professional program			
1.1. General training course			
OC 1.	History of Ukrainian Statehood and Culture	4.0	exam
OC 2.	Academic Integrity and Basics of Scientific Research	4.0	exam
OC 3.	Ukrainian (Professional)	4.0	exam
OC 4.	Health and Safety, Labor Protection and Civil Defense	3.0	Pass/Fail test
OC 5.	Foreign Language (Professional)	21.0	Pass/Fail test, exam
OC 6.	Digital Technologies for Learning and Professional Activities	4.0	exam
OC 7.	Higher and Applied Mathematics	8.0	Pass/Fail test, exam
OC 8.	Philosophy, Ethics and Aesthetics	3.0	Pass/Fail test
OC 9.	Law	4.0	Pass/Fail test
OC 10.	Economic Theory	4.0	exam
OC 11.	Business Psychology	3.0	Pass/Fail test
OC 12.	Statistics	4.0	exam
Number of general training components		66.0	
1.2. Professional and practical training course			
OC 13.	Introduction to the Marketing specialty	4.0	exam
OC 14.	Commodity Science and Marketing Commodity Policy	4.0	exam
OC 15.	Organization of Management Operations	4.0	Pass/Fail test
OC 16.	Economics of Enterprises of Different Forms of Ownership	4.0	exam
OC 17.	Finance, Money, and Credit	4.0	exam
OC 18.	International Economic Relations	4.0	exam
OC 19.	Marketing and Sales Policy	4.0	exam
OC 20.	Accounting and Auditing	4.0	exam
OC 21.	Marketing	6.0	exam, term paper
OC 22.	Management	4.0	exam
OC 23.	E-Commerce	3.0	Pass/Fail test
OC 24.	European Transnational Space	4.0	exam
OC 25.	Marketing of an Industrial Enterprise	4.0	exam
OC 26.	Business Communications	4.0	exam
OC 27.	Logistics	3.0	exam
OC 28.	Digital Technologies and Tools in Marketing	3.0	exam
OC 29.	Social Media Marketing (SMM)	3.0	exam
OC 30.	Marketing of Services	3.0	exam
OC 31.	Graphic Design in Marketing	3.0	Pass/Fail test
OC 32.	Commodity Market Infrastructure	3.0	exam

OC 33.	Marketing Research	3.0	exam
OC 34.	Digital Marketing	3.0	exam
OC 35.	Public Relations	3.0	exam
OC 36.	Educational Practical Training	5.0	Graded test
OC 37.	On-the-Job Training	6.0	Graded test
OC 38.	Pre-Graduation Practical Training	6.0	Graded test
OC 39.	Qualifying paper	9.0	defense
Total for the general training course		110	
Total number of obligatory components		176	
Total number of elective components		64	
Total capacity of the educational and professional program		240	

*Students make their choice in accordance with the Regulations:

https://ie.u.edu.ua/docs/0651_210323181709_001.pdf

**The choice is made out of the catalog of elective disciplines:

<https://ie.u.edu.ua/navchannia/vib-rkov-d-stsipl-ni>

3. Form of student examination

Forms of student examination	The examination of graduates of the Digital Marketing educational and professional program in 075 Marketing specialty, knowledge area: 07 Management and Administration, is conducted in the form of public defense of the qualifying paper.
Qualifying paper requirements (if any)	A qualifying paper should solve a complex specialized task or practical problem in the marketing sector characterized by complexity and uncertainty of conditions using theories and methods of economics. The qualifying paper should not contain academic plagiarism, falsification and copying. The qualifying paper should be published on the official website of International European University or its unit – European Business School, or in the repository of International European University. https://ie.u.edu.ua/pro-mieu/publiczna-informatsiia

4. System of internal higher education quality assurance

INTERNATIONAL EUROPEAN UNIVERSITY has the system of internal higher education quality assurance (internal quality assurance system) that includes the following procedures and measures:

- definition of principles and procedures of higher education quality assurance;
- monitoring and periodical review of educational programs;
- annual assessment of students, academic and teaching staff of the University and regular announcement of the assessment results on the official website of the University, information stands or in any other way;
- advanced training of the teaching, scientific and academic staff;
- availability of resources required to organize the educational process, including independent work of students due to each educational program;
- availability of information systems for efficient management of the educational process;
- publicity of information about educational programs, higher education degrees and qualifications;
- compliance with academic integrity among the University personnel and students, including creation and functioning of the efficient system for preventing and detecting academic plagiarism;
- other procedures and measures.

The system of internal higher education quality assurance (internal quality assurance system) is assessed as requested by the University by the National Agency for Higher Education Quality Assurance (NAQA) or independent institutions of higher education quality assessment and assurance accredited by NAQA for its compliance with the requirements of the higher education quality assurance system approved by NAQA, international standards and recommendations for higher education quality assurance.

5. MATRICES OF COMPLIANCE OF PROGRAM COMPETENCIES WITH COMPONENTS OF THE EDUCATIONAL AND PROFESSIONAL PROGRAM

5.1. Matrix of compliance of program competencies with components of general, professional and practical training courses

	OC 1	OC 2	OC 3	OC 4	OC 5	OC 6	OC 7	OC 8	OC 9	OC 10	OC 11	OC 12	OC 13	OC 14	OC 15	OC 16	OC 17	OC 18	OC 19	OC 20	OC 21	OC 22	OC 23	OC 24	OC 25	OC 26	OC 27	OC 28	OC 29	OC 30	OC 31	OC 32	OC 33	OC 34	OC 35	OC 36	OC 37	OC 38	OC 39				
GC 1	+	+	+					+						+															+											+			
GC 2	+	+	+	+		+		+	+	+	+											+								+												+	
GC 3		+				+	+			+		+						+			+		+																			+	
GC 4				+		+	+					+	+		+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
GC 5		+				+							+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
GC 6										+	+		+	+	+	+	+				+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
GC 7					+							+				+	+			+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
GC 8		+					+	+																	+			+			+	+		+	+	+	+	+	+	+	+	+	
GC 9						+	+	+				+												+			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
GC 10		+			+	+			+							+		+	+						+		+	+			+					+	+	+	+	+	+	+	
GC 11	+	+	+	+	+						+		+		+	+				+	+	+	+		+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
GC 12			+		+			+	+							+	+	+	+	+		+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
GC 13	+	+			+			+	+		+				+		+	+	+	+		+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
GC 14	+	+		+										+							+							+														+	
SC 1										+			+	+						+	+	+					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
SC 2		+							+									+		+	+	+							+								+	+	+	+	+	+	
SC 3										+				+						+	+	+				+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
SC 4					+			+		+			+		+					+	+	+				+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
SC 5		+					+		+						+			+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
SC 6									+						+				+		+	+					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
SC 7																+			+																					+	+	+	+
SC 8																		+		+		+	+				+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
SC 9															+												+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
SC 10					+									+													+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
SC 11										+	+	+				+				+		+						+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
SC 12																						+							+												+	+	+
SC 13													+					+				+		+	+	+															+	+	+
SC 14																					+															+	+				+	+	+

