



SAN DIEGO STATE
UNIVERSITY

Georgia

October 28, 2015

Magda Magradze
Chief Executive Officer
Millennium Challenge Account – Georgia
52 Uznadze Street
0102 Tbilisi, Georgia

Dear Ms. Magradze,

Please find enclosed herewith the documents for the Quarter 5 Report for the Provision of Degree Accreditation and Institutional Support Initiative for Science, Technology, Engineering, and Mathematics, as required per the contract dated July 28, 2014. The specific documents attached include:

- Report on Execution of Q5 Work Plan
- Report on Academic Equipment Procurement
- Lessons Learned Report from Pre-Enrollment Period

In addition, the draft work plan for the 45 month period was previously submitted.

Per the terms of the agreement, please provide review comments within 10 business days. An invoice for the associated payment amount will accompany the revised version once comments are incorporated.

Please feel free to contact me if you have any questions.

Sincerely,

Kenneth D. Walsh, Ph.D.
Dean, SDSU-Georgia




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Annex 1 – Report on Execution of Q5 Work Plan

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SDSU-Georgia – Pre-Enrollment Contract 15-Month Work Plan Q5 Status Report (Tasks, Timelines, Deliverables, Payments)

To facilitate easy evaluation of progress, this document addresses key sub-tasks in the 15-month Work Plan. Tasks that either were executed on schedule, or were brought into schedule during the reporting quarter are included without comment. Tasks that were not completed as scheduled have been indicated for continued effort under the next phase of the project. Tasks and subtasks have been color-coded to indicate tasks completed, those initiated but not completed, and those tasks not initiated – the latter two categories necessitating rescheduling, or an explanation of reprogramming. Accordingly, this document is a companion document to the original 15-month Work Plan approved as part of the Inception Report and any prior schedule revisions (refer to previous Quarterly reports).

	Green – Task completed on schedule
	Yellow – Task initiated, but not completed during the proposed project period. Look for 1) Green indication in a subsequent period indicating completion; 2) Rescheduling later in the project period with clarification in the narrative; 3) Reprogramming with clarification, indicating how the task will now be approached.
	Red – Task not initiated in the proposed program period. Look for 1) Improved color in a subsequent project period indicating progress; 2) Rescheduling later in the project period with clarification in the narrative; 3) Reprogramming with clarification, indicating how the task will now be approached.

The revised work plan for the execution of the Scope of Services as defined in Appendix A during the next phase of the project will include a detailed breakout of the key milestones, deliverables, reports, invoicing and associated schedules as specified in the new Appendix B.

This Status Report is a companion to and structured to align with the Pre-Enrollment Contract Work Plan Events Schedule. There are two major sections: 1) the Pre-enrollment Contract reporting requirements to include the startup inception report and five quarterly progress reports to include the periodic progress payments (invoices by task) per the approved budget and scope of services and 2) a more detailed breakout for each of the seven tasks into key subtask activities. This breakout only includes the assessment of the Task and subtasks for the reporting quarter and the scheduled activities for the next quarter.

The table on the following page provides a schedule for the Quarterly report and a breakdown of the corresponding invoice amount.

The current timeframe for the deliverables and the corresponding dollar amounts are listed below.

Deliverable	Due Date	Percentage of Contract Amount	Amount
Quarter 5 Progress Report	October 27, 2015	12.5%	\$1,122,986.50
Total			\$1,122,986.50

Task 1. Business Unit Organization, Startup, and Operations

The primary purpose of Task 1 is to establish and maintain the management team, program office, and administrative and operational programs and processes to achieve the objectives of the STEM Higher Education Project in accordance with the Pre-Enrollment Contract. Beginning with the preparation and

submission of the Inception Report, the remaining subtasks are focused primarily on the engagement of key personnel at SDSU, the SDSU---Georgia program office and Partner Institutions; securing professional consulting support services; overseeing the activities of Tasks 2 through 7 in collaboration with Partners; and administration of the program to include periodic assessments, reporting of metrics versus plans, and applying lessons learned. Overall this task is evaluated as having satisfactory progress.

			Quarter 5 plus			
Tasks			Jul-15	Aug-15	Sept-15	Oct-15
Task 1		Business Unit Organization				
	1.1	Inception Activities and Report				
	1.2	Staffing Plan				
		<i>Dean and startup</i>	X	X	X	
		<i>Directors/Support Staff</i>	X	X	X	
	1.3	Contract Signing and Kick-off Event				
	1.4	Consulting/Services Agreements				
		<i>Business/Human Resources Services</i>	X	X	X	
		<i>Legal/Import – Export Services</i>	X	X	X	
		<i>Design Services & Management</i>	X	X	X	
	1.5	GEO Staff Indoctrination and Training at SDSU				
	1.6	Form and Convene Advisory Board				
	1.7	Office Materials				
		<i>Purchase Office equipment</i>				
		<i>Purchase Communications equipment</i>				
	1.8	Quarterly Task 1 Performance Assessments				X
	1.9	Follow-on Contract 45-month Budget – Workplan Development and Negotiation	X	X	X	X

Task 1.2 – Staffing Plan

During the recent quarter, We completed hiring processes on additional positions, including a procurement assistant for equipment sourcing in Georgia, a student services assistant to support enrollment processes for new students, and replacement for our administrative assistant. Also, the Vice Dean position was converted to a Tbilisi-resident position with a broader focus. Some new positions were identified as part of the negotiations for the 45-month contract. We have begun work on the position announcements for those actions.

Task 1.7 – Office Materials

The new office complex was completed for SDSU-G to occupy at the end of July/beginning of August 2015. With occupancy of the new office, equipment and furnishings for this space were acquired to support the staff in the new space.

Task 2. Accreditation – SDSU Degrees

Self-studies for ABET-accredited programs were submitted at the usual schedule for 6-year renewal during the summer of 2015. ABET assigned a visiting team, which reviewed the self-studies and visited SDSU during Q5.

Overall progress of Task 2 is satisfactory with subtasks 2-1 through 2-4 for AY2015/16 completed. In addition,

accreditation of the SDSU Computer Science degree program is proceeding as planned after the ABET site visit in September, with anticipation of approval to be completed in time for the addition of this degree program for delivery in AY2016/17. Also during this Quarter, SDSU was authorized as an institution higher education by EQE.

			Quarter 5 plus			
Tasks			Jul-15	Aug-15	Sept-15	Oct-15
Task 2		Accreditation – SDSU Degrees				
	2.1	Staffing Plan				
		<i>Engage SDSU Accreditation Team</i>	X	X	X	
		<i>Engage GE Partners Support Staff</i>	X	X	X	
	2.2	Assemble Degree Program Material	X	X		
	2.3	Contract Signing and Kick-off Event				
		<i>Accreditation Coordinator</i>	X	X		
		<i>Translation of Degree Programs Mat'ls</i>	X	X		
	2.4	Application Preparation and Submission				
		<i>Prepare and Submit Accreditation Packages</i>		X		
	2.5	SDSU Computer Science Accreditation		X		X
	2.6	Quarterly Task 2 Performance Assessments				X

Task 3. Articulation – Partner Courses

The revised approach to articulating courses was implemented, incorporating the faculty visiting SDSU from Georgia to serve a key role in the explication of courses from the partner institutions. Continued effort to evaluate general education courses across the partner institutions is required. A large set of potential courses has been identified for evaluation, and this process is continuing. In general, several courses have been found to be similar in content, but there are substantive differences in assessment practices that must be bridged. In the General Education program, there is additional work to do to incorporate the SDSU's General Education goals and outcomes into both teaching and assessments. This process will be facilitated through additional faculty visits to San Diego, and also as the process of teaching with Georgian colleagues in the first semesters of delivery moves forward. Courses will continue to be reviewed as the program continues. Articulation remains a challenging aspect of the program.

			Quarter 5 plus			
Tasks			Jul-15	Aug-15	Sept-15	Oct-15
Task 3		Articulation – Partner Courses				
	3.1	Staffing Plan				
		<i>Engage Articulation Team Members</i>	X	X	X	
		<i>Engage GE Partners Support Staff</i>	X			
	3.2	Develop and Execute Articulation Plan				
	3.3	Consulting Service Agreements				
		<i>Translation Services (Partners)</i>				
		<i>Curriculum Development (SDSU)</i>	X	X	X	
	3.4	Quarterly Task 3 Performance Assessments				X

Task 4. English/STEM Institute

No ELA course delivery occurred during the most recently completed quarter. ELA courses will begin during the upcoming academic year. The STEM Institute was delivered at TSU in the weeks before the start of classes.

			Quarter 5 plus			
Tasks			Jul-15	Aug-15	Sept-15	Oct-15
Task 4		English/STEM Institute				
	4.1	Staffing Plan				
		<i>Engage a Director</i>				
		<i>Engage Instructors</i>				
		<i>Recruit GE Assistant Director</i>				
		<i>Faculty (Oversight/QA)</i>	X			
	4.2	English/STEM Strategy and Execution Plan	X			
	4.3	Consulting/Services Agreements				
		<i>Student Assessments and Testing</i>			X	
	4.4	Student Recruitment, Assessment, and Enrollment	X	X	X	X
	4.5	English/STEM Training Programs				
		<i>Quarter 2, 10-week program – Target 75</i>				
		<i>Quarter 3 10-week program – Target 75</i>				
		<i>Quarter 4 10-week program – Target 75</i>				
		<i>Quarter 5 Pre-enrollment STEM Institute</i>			X	
		<i>Pre-enrollment additional English training</i>			X	
	4.6	Degree Program Readiness Assessment	X	X	X	
	4.7	Materials				
		<i>Purchase computers/printers for staff</i>	X			
	4.8	Quarterly Task 4 Performance Assessments				X

Task 4.1 – Staffing Plan

CIE was selected as a strategic partner to facilitate rapid start---up of the ELA and student recruitment processes. An American Language Institute faculty member from San Diego has been involved in reviewing their activities, with regular engagement and two trips to Tbilisi this year for review and training. A recruitment was completed to support English language training and support within the curriculum via the Department of Linguistics; the new staff is resident in Georgia.

Task 4.3 – Consulting Services/Agreements

CIE continues to conduct the student recruitment and instruction per the consulting agreement, which includes student English Language assessments. Contract re-negotiation is ongoing for the upcoming academic year. A change in focus is expected, and will be described in more detail in the Student Recruiting Strategy Report.

Task 4.4 – Student Recruitment, Assessment, and Enrollment

CIE in collaboration with SDSU---Georgia continues to conduct outreach throughout the country to

identify students for admission to the English Language Academy. Seventy-seven students identified by the National Exam, three students via mobility, one student who participated in an international Olympiad and was thus able to defer the exam, and one international student were enrolled in SDSU-G programs. Additional demographic information about the students is presented below:

Demographic Information:

- Total student body: 82
 - 77 from the national exam, 1 from Olympiad, 1 international, 3 transfer
- Gender diversity: 20 women of 82 students, 24%
- Social status: 17 out of 82 students so far have demonstrated official status with government, 21%
- By major:

	Computer Engineering	Electrical Engineering	Chemistry
Number of majors	46	19	17
Percent women	24	5	47
Percent social support	20	21	24

- Partner campus: GTU 6, ISU 21, TSU 55
- Merit scholarships: 6 students received 0% merit scholarships, 23 received 50% merit scholarships, 28 received 70% merit scholarships, and 21 received 100% merit scholarships.

All students completed placement testing appropriate to their majors. Engineering students completed the mathematics placement test. Chemistry students completed the chemistry placement test. All students completed a battery of English placement tests. In addition, students completed ToEFL testing in order to provide a standardized baseline assessment at the start of the academic year. Students will complete this test again at the end of the academic year.

Based on the outcome of the placement tests, students were placed into the following courses offered during the Fall semester. Classes began on September 28, 2015.

Course offerings:

General Education	Mathematics	Chemistry	Biology
Linguistics 94	Mathematics 141	Chemistry 100	Biology 100 (online)
Linguistics 100	Mathematics 150	Chemistry 200	
Economics 102			

Task 4.5 – English/STEM Training Program

A STEM Institute was offered to all students, from September 3-11, 2015. The Institute was conducted at TSU Building 1, with all-day sessions. The objectives of the Institute were to review basic science and mathematics; to orient students to SDSU policies, grading standards, and expectations; to complete SDSU registration paperwork and placement testing; to form student organizations and begin building student networks within the cohort; and to expose students to potential career opportunities in their field. The Institute was staffed by SDSU-G resident academic personnel, SDSU resident personnel who visited Tbilisi, and faculty from the partner institutions who had visited SDSU during the preceding year.

Task 4.7 – Materials

Facilities related to continuing ESL development in enrolled students, which may be used by future cohorts in the Tbilisi offerings of the ELA, were included in the renovations conducted in the Summer of 2015 at TSU Central Library. These facilities were substantially complete at the end of this writing. In addition, a number of text and other equipment were delivered to Georgia to support courses.

Task 5. Degree Programs Student Recruiting

The student recruiting effort for the 2015 cohort is completed, with the enrollment numbers reported in

section 4.4. Student recruiting efforts for the 2016 cohort are underway. A revised recruitment strategy will be submitted as an inception document for the 45 month project. SDSU-G staff have reviewed draft plans with MCA-G during September and October as the plan is being finalized. Note that the first cohort was well below the size anticipated in the proposal stage. However, student quality among the first cohort is quite high.

			Quarter 5 plus			
Tasks			Jul-15	Aug-15	Sept-15	Oct-15
Task 5		Degree Program Student Recruiting				
	5.1	Staffing Plan				
		<i>Student Affairs Coordinators</i>	X	X	X	
		<i>Hire Assts/Admissions</i>	X	X	X	
	5.2	Student Recruitment Strategy and Execution Plan				
	5.3	Consulting/Service Agreements				
		<i>Recruitment Campaign Materials (G/SV)</i>	X	X	X	
		<i>Recruitment Consulting Services</i>	X	X	X	
		<i>Student Assessment Services (testing)</i>				
	5.4	Recruitment/Enrollment Activities				
		<i>Marketing/Recruitment Plan Execution</i>				
		<i>Student Assessment/Testing (500*)</i>	X	X	X	
		<i>Evaluation of Gender/Socially Vulnerable</i>	X	X	X	
		<i>Student Registration – Target 250 (25% G/SV)</i>	X	X	X	
	5.5	Quarterly Task 5 Performance Assessments				X

Task 6. GE Faculty Recruiting/Training

Construction at the SDSU San Diego campus and uncertainties about the ongoing contract negotiations delayed the start of the Georgian faculty training exercises for the Fall of 2015. Two cohorts are planned for the Spring semester, which will allow SDSU training activities to catch up. Further, the SDSU faculty in Georgia for the Fall offerings are working with Georgian colleagues, offering additional training. Faculty mentors in San Diego have also been identified for the course offerings in Georgia among Georgian colleagues to further this process. Recruiting for the Spring cohorts is underway as of this writing.

			Quarter 5 plus			
Tasks			Jul-15	Aug-15	Sept-15	Oct-15
Task 6		Degree Program Student Recruiting				
	6.1	Staffing Plan				
	6.2	GE Faculty Training				
	6.3	Quarterly Task 5 Performance Assessments				X

Task 7. Facilities Development

SDSU, SDSU---Georgia, MCA---Georgia and the Partner Institutions continue to develop plans for renovation of facilities to support the delivery of courses and the overall administration of the program. Renovations for the first phase are nearing completion.

			Quarter 5 plus			
Tasks			Jul-15	Aug-15	Sept-15	Oct-15
Task 7		Facilities Development				
	7.1	Staffing Plan	X	X	X	
	7.2	Consulting/Services Agreements				
		<i>Design Services and Construction Supervision</i>	X	X	X	
	7.3	Renovations/Construction Planning				
		<i>Environmental & Social Mgmt Plans</i>	X	X	X	
	7.4	Phase 1a Renovations – Offices (MCA Bldg)				
		<i>Plans (TOR, Bid Pkg, RFP)</i>				
		<i>Renovations</i>	X	X	X	
		<i>Furnishings/Supplies/Equipment Procurement</i>	X	X	X	
		<i>Outfitting, Final Inspection/Acceptance</i>		X	X	
	7.5	Phase 1b Renovations – English/STEM (TSU)				
		<i>Plans (TOR, Bid Pkg, RFP)</i>				
		<i>Renovations</i>	X	X	X	X
		<i>Furnishings/Supplies/Equipment Procurement</i>	X	X	X	X
		<i>Outfitting, Final Inspection/Acceptance</i>		X	X	X
	7.6	Phase 2 Renovations – Classrooms/Labs (TSU)				
		<i>Plans (TOR, Bid Pkg, RFP)</i>				
		<i>Renovations</i>	X	X	X	X
		<i>Furnishings/Supplies/Equipment Procurement</i>	X	X	X	X
		<i>Equipment Installation and Testing</i>			X	X
		<i>Outfitting, Final Inspection/Acceptance</i>		X	X	X
	7.7	Phase 3 Renovations – Classrooms/Labs (GTU)				
		<i>Plans (TOR, Bid Pkg, RFP)</i>				
		<i>Renovations</i>	X	X	X	X
		<i>Furnishings/Supplies/Equipment Procurement</i>	X	X	X	X
		<i>Equipment Installation and Testing</i>			X	X
		<i>Outfitting, Final Inspection/Acceptance</i>		X	X	X
	7.8	Phase 4 Construction and Design RFP (ISU)				
		<i>Plans (TOR, Bid Pkg, BOQ)</i>	X	X	X	X
		<i>Contract Award</i>				X
	7.9	Quarterly Task 7 Performance Assessments				X

Task 7.2 – Consulting/Services Agreements

Design Services and Construction supervision firm is continuing to work to develop the bid specifications packages for construction and upcoming renovations, as well as to supervise the ongoing construction activities. An attorney has also been engaged to assist in permitting matters, and they have engaged an architect with specialization in historic permitting.

Task 7.3 – Renovations/Construction Planning

ESMP documents have now been completed for the Operations and Renovations portions of the project. The ESMP document for new construction is still in review. A number of follow-on documents can be completed once the ESMP documents are finalized.

Task 7.4 – Phase 1a Renovations – Offices (MCA Bldg)

During this Quarter, the construction of the Dean’s administrative offices was completed, and the spaces were occupied.

Accessibility of the office space continues to be an issue. We provided a summary of the accessibility needs for the renovated spaces during Quarter 1. Accessibility to persons with different physical abilities is a requirement of accreditation as well as a component of the SDSU-G and MCA-G Environmental and Social policies. Accessibility of the spaces is to be addressed by the partner universities. We understand that there are ongoing discussions with the Ministry of Infrastructure and the Environment and the Mayor’s Office regarding this issue.

Task 7.5 – Phase 1b Renovations – English/STEM (TSU)

Renovations were conducted over the quarter, with the exception of installation of the HVAC system. Furnishings and equipment were obtained or are being procured at present.

Task 7.6/7.7 – Phase 2 Renovations – Classrooms/Labs (TSU and GTU)

During this quarter, SDSU-G was able to occupy the administrative office complex, which experienced some significant delays over initial plans. Renovations were conducted in classroom and laboratory spaces at TSU and GTU. Classroom spaces were substantially completed as of this writing.

The chemistry laboratories at GTU and TSU have encountered some delays. The installation of HVAC equipment required a separate procurement effort by SDSU, because of the interface between this equipment and the exhaust requirements of the exhaust fans. This procurement was not successful when first attempted, and had to be re-completed. An HVAC contractor is now selected from the second effort. However, the equipment required includes some components that must be installed on the exterior of the buildings. Special permits are required for this work because the buildings have historic designation in Tbilisi. So far, SDSU has not obtained the necessary permits, but is working to complete this process. The first semester laboratories in chemistry can be conducted without the hoods, creating some time until the start of the second semester in February to complete the permits and the related work.

Cosmetic renovations of the physics labs at TSU were completed. The course does not occur until the second semester, because of the calculus pre-requisite in the first semester. Equipment for the lab is being procured now.

Accessibility of the spaces within the partner campuses continues to be an issue. We provided a summary of the accessibility needs for the renovated spaces during Quarter 1. Accessibility to students and faculty with different physical abilities is a requirement of accreditation as well as a component of the SDSU-G and MCA-G Environmental and Social policies. Accessibility of the spaces is to be addressed by the partner universities. We understand that they are engaged in discussions with MoES regarding this issue.

Task 7.8 – Phase 4 Construction Design and RFP (ISU)

Programming of the new engineering building at Ilia State University was completed, and 70% plans were submitted for MCA-G review. At the same time, permit applications for necessary re-zoning and tree removal were submitted. The re-zoning application appears headed toward approval, but there are significant obstacles to the approval of the tree-cutting proposal that may require relocation of the building. The available locations on the ISU campus where the building could be relocated would require reshaping of the building and thus rework for the design documents. If required, this will create a delay

on the order of 1 quarter in the new construction process. Discussions among and between SDSU, ISU, and the Mayor's office are still continuing as of this writing.

Annex 2 – Report on Academic Equipment Procurement

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SDSU-Georgia – Report on Academic Equipment Procurement

Academic equipment for the conduct of classes for the Year 1 courses was conducted. A list of equipment procured is provided on the following pages. Note that the list is broken into two parts. The first list corresponds to those items that exceed the \$5,000 per unit threshold for equipment, per the US federal definition as outlined in the contract. The second list is provided for reference, and summarizes miscellaneous procurements for items that fall below the \$5,000 per unit threshold.

Academic Equipment Report

Date 10/28/15

Goods recieved from SDSU Foundation or procured locally in an amount exceeding the \$5,000 per item equipment definition

Description	Q-ty	Program	Status	Comment
Fume Hoods	6	Chemistry	Received	Procured by SDSU foundation
Student Fume Hood,	1	Chemistry	Received	Procured by SDSU foundation
Accessible Student Fume Hood	2	Chemistry	Received	Procured by SDSU foundation
Student Fume Hood with flammable Storage	3	Chemistry	Received	Procured by SDSU foundation
Fume Hood Accessories	168	Chemistry	Received	Procured by SDSU foundation
Exhaust Fan Motor, Seat 25	4	Chemistry	Received	Procured by SDSU foundation
Backdraft damper (Galvanised steel metal backflow preventer)	4	Chemistry	Received	Procured by SDSU foundation
Electrical motor metal cover part (powder coated steel)	4	Chemistry	Received	Procured by SDSU foundation
Galvanized steel Jet Cap,	4	Chemistry	Received	Procured by SDSU foundation
Galvanised steel reducer 280/200 mm for exhaust fan and duct	8	Chemistry	Received	Procured by SDSU foundation
Flexible Duct for Chemical Fume Hood 4	4	Chemistry	Received	Procured by SDSU foundation
Acoustically Insulated Sound Atteunators,	8	Chemistry	Received	Procured by SDSU foundation
Strip stainless steel banding and locking,	2	Chemistry	Received	Procured by SDSU foundation
Duct Metal Clips and Connection parts,	100	Chemistry	Received	Procured by SDSU foundation
Duct collar coupling,	30	Chemistry	Received	Procured by SDSU foundation
Air Vacuum system	4	Chemistry	In Transit by 21.11.2015	Procured by SDSU foundation
Air Compressors	4	Chemistry	In Transit by 21.11.2015	Procured by SDSU foundation
Rodi Systems Piping		Chemistry	Order in Progress	Procured Locally

Academic Miscellaneous Procurement Report

Date 10/28/15

Goods recieved from SDSU Foundation or procured locally in an amount below the \$5,000 per item equipment definition

<5000\$ per unit

Description	Q-ty	Program	Status	Comment
Water Purification Systems VWR	3	Chemistry	Received	Provided by SDSU Foundation
Purelab Flex 3 Tap to Type 1	3	Chemistry	Received	Provided by SDSU Foundation
POU Biofilter	6	Chemistry	Received	Provided by SDSU Foundation
Pre-Treatment Kit for Flex 3	3	Chemistry	Received	Provided by SDSU Foundation
UV Lamp Flex 2/3	3	Chemistry	Received	Provided by SDSU Foundation
Vent Filter Flex 3/4	3	Chemistry	Received	Provided by SDSU Foundation
Purification Pack Flex 3/4	6	Chemistry	Received	Provided by SDSU Foundation
Sanitization Kit	3	Chemistry	Received	Provided by SDSU Foundation
Rodi Systems	3	Chemistry	Received	Provided by SDSU Foundation
Laboratory RODI system, 2-pass, 180 gpd, 10in Filters(2	3	Chemistry	Received	Provided by SDSU Foundation
Storage Tank assembly, 14 gal, 6.5 gal capacity	3	Chemistry	Received	Provided by SDSU Foundation
3-way ball valve w/ 3/8 in Tubing QC Fittings (Final Ou	3	Chemistry	Received	Provided by SDSU Foundation
ZetaZorb Sediment Filter Cartridge - 0.5 Micron (ABS),	9	Chemistry	Received	Provided by SDSU Foundation
Carbon Block Filter Cartridge-0.5 Micron , 9.875 in L	9	Chemistry	Received	Provided by SDSU Foundation
Ultra Low Total-Organic-Carbon Mixed-Bed DI cart, 3ir	30	Chemistry	Received	Provided by SDSU Foundation
Custom order, 230V Power Supplies for UV and Resistiv	3	Chemistry	Received	Provided by SDSU Foundation
Dell Desktop Computers	108	All	Received	Provided by SDSU Foundation
Pumps	3	Chemistry	Received	Provided by SDSU Foundation
Pump WOB-L 230V 50/60 Hz	1	Chemistry	Received	Provided by SDSU Foundation
WOB-L Pres/VAC pump 230V 50Hz 1PH	1	Chemistry	Received	Provided by SDSU Foundation
WOB-L Pres/VAC pump 230V 50Hz 1PH CE	1	Chemistry	Received	Provided by SDSU Foundation
Emergency Showers	4	Chemistry	Received	Purchased from Turkey
Water Purification System (wall mount)	3	Chemistry	In Transit by 30.10.2015	Provided by SDSU Foundation
Wall mounting kit flex for water purification system	3	Chemistry	In Transit by 30.10.2015	Provided by SDSU Foundation
Sanitant (UN3149 Hydrogen peroxide and peroxyacetic	2	Chemistry	In Transit by 30.10.2015	Provided by SDSU Foundation

University Furniture and classroom accessories		All	Received	Purchased Locally
Desks	150	All	Received	Purchased Locally
Chairs	365	All	Received	Purchased Locally
Whiteboards	11	All	Received	Purchased Locally
Stools	30	Chemistry	Manufacturing	Purchased Locally
HP Laptops	15	All	Received	Purchased Locally
Projectors	3	All	Received	Purchased Locally
Chemicals		Chemistry	-	Purchased Locally
Chemicals Purchased		Chemistry	Received	Purchased Locally
Chemicals Ordered		Chemistry	-	Ordered Locally
Chemicals to be ordered		Chemistry	-	Searched Locally and Nearby
Chem Lab Tools		Chemistry	-	Purchased Locally
<i>Chem Lab Tools Purchased</i>		Chemistry	Received	Purchased Locally
<i>Chem Lab Tools Ordered</i>		Chemistry	-	Ordered Locally
<i>Chem Lab Tools to be Ordered</i>		Chemistry	-	Prepared for ordering by SDSU Foundation
UPS for Fume Hoods	2	Chemistry	Received	Purchased Locally
Physics Lab Equipment Package	1	All	In progress	Provided by SDSU Foundation

Annex 3 –Lessons Learned Report

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Lessons Learned

In this section, SDSU reports on a number of lessons learned during the 15 month contract period. The table below summarizes the issues identified and solutions or potential solutions for those issues. Following the table, additional narrative information is provided.

Lesson learned	Solutions/Potential Solutions
Difficulty in recruiting private high school students	MCA-G has committed to work with SDSU-G and the Ministry of Education and Science to develop a solution.
Difficulty in recruiting international students	MCA-G has committed to work with SDSU-G and the Ministry of Education and Science to develop a solution. SDSU-G has proposed that a process be developed in which students can begin visa application processes once they receive provisional admission from SDSU, using SDSU's admission practices for international students.
Regulatory environment in Georgia for higher education	MCA-G facilitated changes to the law on higher education in Georgia that allowed SDSU G programs to be accredited through the partner universities.
Tax issues	MCA-G facilitated discussions with EQE to allow changes to policies in order to allow the authorization of SDSU-G. This provides tax-exempt status for SDSU-G tuition. SDSU-G is required to work carefully through all revenues to the branches and the source of funds for expenses in Georgia in order to minimize tax implications. MCA-G facilitated discussions with the Revenue Service, and it appears that SDSU can request reimbursement of VAT expenses against VAT costs in a prior quarter.
Securing commitment for ELA students to SDSU	Several options are being considered. For example, in one, students will be able to register for ELA courses for a fee, and to apply a fraction of the ELA costs towards their first year tuition.
Impact of timing of student enrollment in Georgia on academic planning, recruitment, and fiscal issues	In the 45-month contract, SDSU and MCA-G agreed to develop a process to better measure student commitments to SDSU-G during the Spring. This process must be agreed by the end of November, 2015.
Increased impact of lack of financial aid infrastructure	The method developed for identifying student commitments to SDSU-G described in the previous item must incorporate this concern.

Lesson learned	Solutions/Potential Solutions
Academic year calendar does not lend itself well to quarterly reporting schedule	Schedule of deliverables developed for the 45 month addresses this
Preparation of students in Georgian high schools	Improvements in laboratories in secondary schools appear to be a critical need to allow Georgian students to be more prepared for US style higher education programs.
Impact of dollarization of tuition	This is an external risk factor to the program.
Velocity of construction/renovation processes	Target much early start for the renovation activities for future renovations. Additional staffing for construction/renovation supervision and additional consultation on permitting processes may be desirable. Sourcing activities must begin much earlier.
IT infrastructure challenges	SDSU brought additional resources from San Diego to support installation of computer laboratories and upgrading of facilities. These staff members will remain involved to assist in the identification of Georgia-based personnel can be completed.

Lessons learned:

1. Difficulty in recruiting private high school students:

The over-arching concept of the project is that the MCC-sponsored period would provide SDSU the opportunity to build both physical capacity (e.g. classrooms and laboratories) and institutional capacity (faculty and administrative support) for a sustainable program that could continue to operate after the MCC funding period would end. In the initial model, tuition revenues are the key component of the sustainable funding for the post-MCC period. Thus, the enrollment of students with capacity and willingness to pay for the SDSU-G degree programs is mission-critical.

During project planning in 2013/14, one of the critical assumptions related to this need was that there were potential student groups that would have the means to pay the tuition. It was recognized from the very beginning that STEM fields were not as popular in Georgia as many non-STEM fields of study, for a host of historic reasons. Thus, in order to achieve sufficient numbers of students in the STEM fields, a large pool of students with capacity is needed. Documents provided by MCA-G suggested that there was adequate capacity and demand, even at tuitions higher than the SDSU-G \$7500 value. The existence of private high school programs in Georgia with tuitions on the order of the SDSU-G tuition were taken as evidence in support of the assumption that there would be a sufficiently large pool of students with capacity.

However, during the recruiting process it came to light that many of these private high school programs produce graduates that are not eligible to study in

Georgian universities, because they do not follow the Georgian curriculum and/or do not have authorized diplomas in Georgia. These students are largely in English language programs, and upon completion of their studies they have to study outside Georgia. They come from families with capacity (as demonstrated by their tuition), they have English language skills (as in many cases their language of instruction is English) and they are often well prepared (as demonstrated by their acceptance at prestigious universities in the US and Europe). Such students would generally be easily qualified to study in San Diego at the main campus. However, these students cannot be recruited by SDSU-G.

There are pathways by which such a student *could* enter Georgian universities, but these pathways are rather convoluted. More importantly, these pathways would all lead such students to the national exam in July – several months after they would need to commit to universities in the US or Europe. Thus, a student would have two unpleasant choices in order to be accepted at SDSU-G:

- Accept an admission offer from a desired outside university. Pay the intention-to-enroll deposit at that outside university. Register and study for the NAEC exam. This exam is in late July. Wait for the results (some time in August). For many universities in the US, they would actually have to have made their first semester's payments of tuition and housing in addition to the deposit. These can be extremely significant for international students, so this is a significant financial commitment. If NAEC scores are high enough that the student can be admitted to SDSU-G, forgo the intention-to-enroll deposit and (possibly) tuition and fees for the outside university, and begin studies at SDSU-G. If the student does not do well enough on the NAEC exam (about which they have real fear as they have spent their high school experience preparing for other exams, and the conventional wisdom is that it is too difficult to do well on both NAEC and SAT), then they could go ahead and study where they paid the intention-to-enroll deposit and (possibly) first semester tuition and fees. This option is quite unpalatable because of the financial risks and uncertainty about where the student will actually be studying until very late in the summer. In fact, in many universities in the US, the student would not learn about their university registration until after classes have begun at the US university.
- *Don't* accept any admission offers from outside universities. Take the NAEC exam and plan to come to SDSU-G instead. If NAEC scores are high enough that the student can be admitted to SDSU-G, begin studies at SDSU-G. If the student does not do well enough on the NAEC exam (about which they have real fear as they have spent their high school experience preparing for other exams, and the conventional wisdom is that it is too difficult to do well on both NAEC and SAT), then they have given up on the option of study at an outside university, and they instead end up in a Georgian university other than SDSU-G. This option is quite unpalatable because of the uncertainty about where the student will actually be studying, and the risk that they might not end up in the internationally recognized university that was an important reason they went to a private high school in the first place.

These unpalatable options are balanced against the financial benefit of the lower SDSU-G tuition and living expenses to achieve a US degree as compared to international tuition and living expenses to study at a comparable university in the US. Our experience during the first year's recruiting effort is that this potential benefit was by no means sufficient to interest students from such high schools. Further, the real or perceived difficulties in navigating the process to even allow them to take the NAEC exam at all was a very significant deterrent.

Solution: SDSU believes that it is imperative to overcome these barriers in order to allow us to recruit such students effectively. MCA-G has committed to work with SDSU-G and the Ministry of Education and Science to develop a solution. SDSU points out that a significant motivation for the creation of this project in the first place was to try and provide opportunities for gifted students to achieve recognized degrees inside Georgia so they might be more likely to undertake careers in Georgia. The policies that produced these recruiting difficulties, while well-intended to avoid potential corruption of the university admissions process for students of private high schools, are entirely counter-productive to this goal.

2. Difficulty in recruiting international students:

Another potential pool of fee-paying students that was considered viable during project planning in 2013/14 was students from outside Georgia. Such students would pay a differentially higher tuition than Georgian citizens, so that they actually provide more resources to the program than fee-paying Georgian students. Thus, such students could serve to subsidize tuition costs for Georgian students, making the program even more sustainable. Initial inquiries and review of data suggested that this was a viable pool of students. There are some sizable populations of international students in Georgia, and SDSU got feedback that there were interested students in the near region and in some more distant countries. Tuition of SDSUG for international students was set at \$13,500.

However, upon closer study, and after conducting a survey in Georgia, it became apparent that, except for Medicine and Dentistry, average tuition paid by international students studying in Georgia is around \$2,000. Medicine and Dentistry are in the range of \$4,000-\$7,000. To date, the Georgian undergraduate higher education sector, both private and public, appeals only to international students looking to obtain a degree in a country that offers "value-market" degrees. Shifting the perception of Georgian universities in the international education arena from that of "value-market" to a "high-end brand", (e.g., internationally accredited U.S. degree), will need time, additional resources, and parallel, mutually supportive initiatives from Georgian MoES and MoFA. How Georgia and Georgian higher education is positioned in the international higher education arena, posed some difficulty for SDSU-G promotions. Particularly, in relations to partner universities tuition, etc.

After visiting several neighboring countries, participating in international education fairs, and studying the competitive international education market further, three major issues were identified. These are:

1. Georgian HE market serving the "value market" (see above)

2. Georgian HE law and regulations need major revamping: Visa issues; lack of provisional and/or conditional acceptance in the Georgian Law; process and timing of documentation needed by Georgia to allow perspective students be approved for Higher Education studies in Georgia. (Additional detail to follow)
3. Lack of English ready students in many target countries: English Language Academy tries to address the issue of English-readiness of the Georgian nationals, but for international student recruitment, lack of an English Preparatory School became a major obstacle. There is a need to establish preparatory year programs (e.g., pathways), preferably in partnership with partner universities.

Item 2 in the list above arises primarily from issues related to procedures for obtaining visas. In the US, international student admission is the purview of the universities. The federal government issues visas based on their own assessment of the student's financial capacity and security risk, but leaves the determination of the student's academic capabilities and qualifications to the universities. Universities commonly issue a provisional admission to the student in their last year of high school. The student is required to provide official documents proving that they have qualified for university requirements at some later date, commonly after the end of one or two semesters of study at the university. If they do not provide satisfactory documents, then their admission is rescinded. With provisional admission, the student can begin the visa application process and obtain their visa immediately. Universities are periodically audited to make sure that they are, in fact, obtaining satisfactory documentation of the student's capabilities, and in fact this is a common part of the accreditation review.

In Georgia, the process is quite different. The Ministry of Education and Science conducts the review of documents demonstrating that the potential student is qualified to study. This review must be completed based on official, attestated copies of the documents, including high school transcripts and diplomas. These documents are not available until after the student completes high school, often late in the summer before the first year. Only after the document review (which can take weeks) can the process begin to make sure the potential student has adequate financial resources and does not pose a security risk (a separate, serial process which can also take weeks). The net effect is that for most students, it is not possible to complete the process in time to arrive in Georgia before the beginning of classes in the Fall. This serves as a significant deterrent, because the student is not certain they will actually be able to join the cohort.

There are number of related issues that further complicate the issue. These include the fact that Georgia does not maintain embassies in all of the potential source countries for international students, and often directs students to countries that are expensive to visit or perceived as security risks to the student in order to get their visa. In addition, at present Georgia is not widely seen as a potential destination for higher education for a number of reasons. However, SDSU believes that Georgia is positively perceived by families of students in many countries across the region, and so expects that other problems could be overcome if the visa process were adjusted to allow potential students to feel

confident in their ability to receive a visa in time to plan and execute their move to Tbilisi.

Solution: SDSU believes that it is imperative to overcome the visa barriers in order to allow us to recruit international students effectively. MCA-G has committed to work with SDSU-G and the Ministries of Education and Science and Foreign Affairs to develop a solution. SDSU-G has proposed that a process be developed in which students can begin visa application processes once they receive provisional admission from SDSU, using SDSU's admission practices for international students. Documentation could then be submitted later to convert the provisional admission status to full admission status, a process that could be readily audited. This is a potential solution; SDSU-G will work with MCA-G and MoES to identify other potential solutions and settle on a workable alternative.

3. Regulatory environment in Georgia for higher education:

During the project planning phase in 2013/14, SDSU consulted with the partner universities about the accreditation environment in Georgia, and sought information about the accreditation process. However, the level of SDSU's understanding of these processes and policies increased significantly during the process of applying for accreditation for the initial set of programs in the Fall of 2014. Accreditation processes are significantly different, both structurally and in terms of the policies applied. Accreditation in the US is a decentralized, non-governmental activity; in Georgia it is a centralized process conducted via a LEPL established by the Ministry of Education and Science (the National Center for Educational Quality Enhancement or EQE). For a number of reasons, accreditation of the SDSU programs would not have been possible under existing law at the start of the program in July 2014. These include differences in requirements for the length of academic semesters, differences in grading standards, differences in counting student credit hours, and differences in documentation requirements, for example.

Solution: In order to complete the accreditation process, SDSU was assisted by MCA-Georgia. MCA-G worked with EQE and the Ministry to develop proposed changes to the law to allow the accreditation of the SDSU-G programs, and these laws were adopted by the government at the end of 2014. Accordingly, the programs were accredited through the auspices of the partner universities as programs at the partner universities, allowing them to appear on the list of programs students could choose through their registration with the National Assessment and Examinations Center (NAEC).

4. Tax issues:

Through the establishment of the SDSU-G administrative and business affairs operations in Tbilisi, there were a number of lessons learned about the taxation environment and its impacts on the financial picture for SDSU-G. SDSU tuition in the US is exempted from taxation. In Georgia, this is not necessarily the case, unless the institution is authorized as an institution of higher education.

Further, SDSU and the SDSU Research Foundation are both parties to the agreement. SDSU operates the academic programs, while the SDSURF provides

support for the conduct of grants. Thus, SDSU is involved in the processing of tuition and in tuition-funded activities. After the completion of the authorization of SDSU as an institution of higher education, SDSU created a legal entity in Georgia for that purpose. SDSURF is involved in the processing of MCA-G grant funds and in grant-funded activities. To that end, SDSURF opened a branch office in Georgia during Q1 of the 15-month contract. As time goes forward, there will be a transition from activities being primarily grant-funded to being primarily tuition-funded. Once that transition is complete, the operation will in concept be run entirely on tuition-based revenues. In the meantime, there may be a need for transfers from SDSU to the Foundation, or from the US accounts for either of these entities to the Georgian branches of these entities. Such transfers are taxable, which has a substantial financial implication that was not recognized during the proposal review process in early 2014.

After the project started, SDSU learned that the VAT exemption for this project is operationalized on a reimbursement basis. This was not apparent to SDSU prior to the contract signing, and SDSU was concerned that if VAT expenses in a given quarter were not matched well to the payment schedule, there was a risk of financial loss.

Solution: In order to address the tax status of SDSU-G tuition, MCA-G facilitated discussions with EQE to allow changes to policies in order to allow the authorization of SDSU-G. This provides tax-exempt status for SDSU-G tuition. In order to address taxation of internal transfers among and between SDSU, SDSURF, and their respective Georgian branches, SDSU-G is required to work carefully through all revenues to the branches and the source of funds for expenses in Georgia in order to minimize tax implications. MCA-G facilitated discussions with the Revenue Service, and it appears that SDSU can request reimbursement of VAT expenses against VAT costs in a prior quarter.

5. Securing commitment for ELA students to SDSU

The English Language Academy (ELA) was conceived during the proposal process as a means of helping students prepare for study in English in the SDSU-G programs. Twenty-six of the SDSU-G students in the initial cohort participated in the ELA program, representing 32% of the total student body. However, only 23% of the students who took ELA classes ended up in SDSU-G programs. The efficiency of the ELA as a recruiting tool is thus questionable. This occurs because of the timing and registration system for the national exam. The exam is taken in July after the senior year of high school. Students preparing for university entrance during their 12th grade year would need language intervention during that year, but they are not committed to any university until a few days after the end of the national exam, that is, until sometime in early August. This is well after the end of the ELA, and there is nothing to stop a given student from changing their university rankings at that point, after they have completed their ELA studies. There existed in the first year ELA policy no means of requiring ELA students to attempt to register for SDSU-G programs.

Solution: The ELA model is being significantly re-tooled in the second year. Under one model that is being considered, students will be able to register for

ELA courses for a fee, and to apply a fraction of the ELA costs towards their first year tuition. This will help to limit students in ELA to those that are actually interested in SDSU-G programs, and improve the cost efficiency of the ELA effort.

6. Impact of timing of student enrollment in Georgia on academic planning, recruitment, and fiscal issues

Students enroll in SDSU-G via the national examination process. This examination occurs in late July. Students register for national exams and rank choices of university programs much earlier than this (by mid-March), but this registration is non-binding. Students can change their ranking at any time, up through a few days after the end of the national exams (in early August). Once exams are graded and results released, students are then placed in university programs using their rankings, in order of the highest-scoring students by their highest-ranked choices first. The placements were announced in late August. This means that no student is committed to SDSU-G until that time, so that the number of students that will be coming to SDSU-G programs is not known until that time. Until the number of students are known, it is not possible to make basic decisions such as the number of sections needed of a given courses, the number of textbooks needed to support courses, and so on. An outcome of this is that academic planning, budgeting, and recruitment is entirely different than processes used on the main campus. Most critically, planning for teaching resources for the Fall semester is nearly impossible in this environment, as commitments for faculty and textbooks must be made several months before this.

Solution: In the 45-month contract, SDSU and MCA-G agreed to develop a process to better measure student commitments to SDSU-G during the Spring. This process must be agreed by the end of November, 2015.

7. Impact of lack of financial aid infrastructure

SDSU operates an Office of Financial Aid and Scholarships on its San Diego campus. This infrastructure supports the administration of a range of private and public scholarships, grants, and loan programs to allow students to afford their university education. Such programs include a variety of merit-based and needs-based models. For needs-based model, there is a standardized process for income assessment, which allows for a consistent and trusted method of income verification that allows the university to establish and document a given student's need.

It was clear during the project planning effort in 2013/14 that this infrastructure did not exist at the partner universities. However, it was not recognized by SDSU that there were no parallels in Georgia to US income assessment methods. This makes verification of student need quite complicated. There is a registration process for social support, and students who fit one or more of several social support categories can qualify for scholarship support within the existing university system in Georgia. These categories include a mix of financial, minority/ethnicity status, disability, veteran, and other characteristics. They are officially registered with the government and as such they are verifiable. However, as not all of the categories represent financial characteristics per se,

and furthermore the income level that triggers social support status in the one directly relevant category is quite low, these categories are not suitable as a sole means of determining family financial resources.

Solution: The method developed for identifying student commitments to SDSU-G described in the previous item must incorporate this concern.

8. Academic year calendar does not lend itself well to quarterly reporting schedule

The 15 month contract included a quarterly reporting cycle. The academic year operates on a semester basis, meaning many activities do not match well to a quarterly schedule. Further, bundling of the academic deliverables, which are calendar driven and unlikely to be delayed, together with deliverables that are more subject to external delays (particularly construction- and renovation-related deliverables) introduces potential problems for acceptance of the deliverables as a set.

Solution: Schedule of deliverables developed for the 45 month addresses this.

9. Preparation of students in Georgian high schools

SDSU had no experience to draw from about the capabilities and curricula in Georgian high schools. With the enrollment of the first cohort, we have developed additional understanding of the outcomes of the Georgian high school environment. A key finding was that theoretical preparation appears to be reasonably strong. Student efforts on math placement testing reveal outcomes similar to, and possibly even slightly better than, students who take the same instruments on the main campus. Student efforts on the chemistry placement test, and their experience in the first part of the Chemistry 100 class, reveal that the Georgian high school curriculum in chemistry is substantially different than the US curriculum. A particular difference is that students in Georgia exhibit very limited laboratory experience and ability. This matches observations and discussions with educators and administrators at both secondary and tertiary levels in Georgia.

Solution: Improvements in laboratories in secondary schools appear to be a critical need to allow Georgian students to be more prepared for US style higher education programs. It may be that some such improvements can be addressed via the secondary education portion of the Compact, which would provide synergistic investments in the Georgian education system.

10. Impact of dollarization of tuition

Dollarization of SDSU-G tuition means that the real cost to Georgians is quite dependent on the exchange rate. During the first year, this created a 30-40% increase in the real (lari) cost of SDSU's tuition as compared to the summer of 2014. SDSU-G's major expenses are dollarized, including laboratory equipment, faculty, texts, etc.

Solution: This is an external risk factor to the program. It could be partially addressed by increasing the rate at which programs transfer to the Georgian

partner universities, as this would have an impact on the currency required for personnel expenses. However, modern scientific and engineering laboratory equipment and many supplies will likely have to be sourced outside of Georgia for the foreseeable future.

11. Velocity of construction/renovation processes

Construction/renovation activities have proven much more difficult and slower than expected. Construction delays arose from a number of factors. These include delays in completing design documents, the impact of the various permit processes, contractor performance problems, and sourcing limitations for specialized components of the project. Scientific equipment and specialized services (such as HVAC specialty construction, for example) is quite difficult, with very few and sometimes no available sources in Georgia. Sourcing in the US is often much more reliable, but shipping costs can be prohibitive for that approach.

Solution: Target much earlier start for the renovation activities for future renovations. Additional staffing for construction/renovation supervision and additional consultation on permitting processes may be desirable. Sourcing activities must begin much earlier.

12. IT infrastructure challenges

The IT infrastructure to support educational programs was expected to be challenging. This expectation has proven to be correct. Issues include:

- **Equipment availability:** Equipment, including both workstations and especially networking equipment compatible with SDSU standards and security needs have proven very difficult to source from within Georgia, and slow to obtain from outside Georgia. For equipment sourced from within Georgia, when available, we have noted higher-than-expected failure rates.
- **Internet speed and connectivity:** Internet connections coming in and exiting Georgia are very slow. Originally we had “out of country” internet speeds of 1-2 Mbps. After getting approval to upgrade, at additional cost, we are now experiencing around 10 Mbps, which is marginally functional. Upgrades to speed are continuing at the various campus locations.

Solution: SDSU brought additional resources from San Diego to support installation of computer laboratories and upgrading of facilities. These staff members will remain involved to assist in the identification of Georgia-based personnel can be completed.