

**RATIFY THE FIRST OPTION TO RENEW THE AGREEMENT WITH VARIOUS CONSULTANTS FOR DEVELOPMENT OF A CAPSTONE COURSE IN SPACE SCIENCE**

**THE CHIEF EXECUTIVE OFFICER REPORTS THE FOLLOWING DECISION:**

Ratify the first option to renew the agreement with various consultants for the development of a Capstone Course in Space Science for Office of Teaching and Learning at a cost for the option period not to exceed \$1,499,964.00 in the aggregate. Written documents exercising this option are currently being negotiated. No payment shall be made to any Consultants during the option period prior to the execution of their written document. The authority granted herein shall automatically rescind in the event a written document is not executed within 90 days of the date of this Board Report. Information pertinent to this option is stated below.

**USER INFORMATION :**

Contact: 13730 - Academic Initiatives  
1326 West 14th Place, Room 102A  
Chicago, IL 60608  
Loehr, Mr. John Francis  
773-553-5060

**ORIGINAL AGREEMENT**

The original Agreements (authorized by Board Report # 09-0923-PR28) in the amount of \$1,400,00.00 are for a term commencing the date the agreement was signed and ending April 8, 2011, with the Board having 1 option to renew for 18 month terms. The original agreement were awarded on a non-competitive basis due to the unique requirements of the participants as defined in the National Aeronautics and Space Administration (NASA) Request for Proposal.

**OPTION PERIOD**

The term of this agreement is being extended for 18 months commencing April 9, 2011, and ending October 8, 2012.

**OPTION PERIODS REMAINING**

There are no option periods remaining.

**SCOPE OF SERVICES**

Consultants will continue to provide professional services to the Board to implement the Chicago Public Schools Capstone Course in Space Science. These professional services will continue focusing on the creation of a new elective science course that teaches students about space science using educational materials and scientific data that is made publicly available by the NASA. In addition, this course is being designed around the principals of student inquiry, project based learning, and teacher support. This approach ensures that the newly created course is aligned with the instructional pedagogy and content of other curriculum efforts within CPS.

Consultants provide one of two (2) types of intensive, ongoing 3rd party help. Type 1 Consultants (Loyola University-Chicago, Northwestern University, Adler Planetarium & Astronomy Museum, DePaul University, and University of Chicago) provide services for Course Development and Implementation, while the Type 2 Consultant (Indiana University) provides services for Program Evaluation. The following section summarizes the scope of services for each type of consultant(s).

Each **Type 1** Consultant is responsible for the development and implementation of one unit of instruction centered on a NASA mission or program for the Capstone Course in Space Science. Each Type 1 Consultant is held accountable for implementing the following scope of work in close coordination with

CPS:

- **Create and run intensive summer workshops:** Each Type 1 Consultant has created and will continue to run intensive, 120 hour, summer workshop for up to 4 high school teachers and 16 high school students centered on their chosen NASA mission/program. This workshop not only offers the participants an opportunity to learn about the specific NAS mission/program but also provides the opportunity to engage the research projects using authentic NASA data collected by that mission/program. In addition, each workshop serves as the foundation for development of an instructional unit which will become part of the coherent Capstone Course.

- **Development of a coherent Capstone Course in Space Science:** The Type 1 Consultant will work with CPS and other Type 1 Consultants to design a coherent Capstone Course in Space Science based on their experiences during the intensive summer workshops.

- **Course planning infrastructure:** The Type 1 Consultant will create planning guides that provide appropriate lesson structure with annotation to support best-practice instruction, including instructional materials and equipment; the planning guides should "tell the story" of each unit and drive an effective balance of content coverage, deep cognitive skill development, and independent student inquiry.

-**Assessments dedicated to the course:** The Type 1 Consultant is responsible for assessments that carefully check for course-level skills and content, summative pre-test, semester, and final exams, as well as unit tests designed to help guide instruction and course planning.

-**Concrete professional development-** During the implementation phase of the Capstone Course in Space Science, each Type 1 Consultant will continue to participate in the design and delivery of 60 hours of professional development (30 hours during the summer, and 30 hours throughout the school year) for the teachers of this course. This professional development will be specific and dedicated to concrete course requirements and issues. Sessions and workshops should serve concrete "next week, next month" needs for teachers.

**Networking Opportunities:** The Type 1 Consultant will work with CPS and the other Type 1 Consultants to build teacher networks that thrive within schools, online and across schools offering the Capstone Course in Space Science, to build effective connections, develop an exciting professional environment for teachers, and broker the dissemination of best-practice instruction.

The **Type 2** Consultant is responsible for continuing the development and implementation of a scientifically sound and valid program evaluation. This program evaluation provides ongoing formative evaluation tools for use by CPS leadership and the Type 1 Consultants as they implement and refine their programs, as well as establish a strategy and process for appropriate long-term summative evaluation of the effects the Capstone Course in Space Science on both students and teachers. The formative work is ongoing and fluid, providing data and details to CPS leadership and the Type 1 Consultants so they can revisit and adjust specific curriculum, model lessons, and professional development to maximize the potential of the work. Whenever possible, this evaluation maximizes the use of extant data (e.g., lesson plans and syllabi) to minimize respondent burden. The Type 2 Consultant is held accountable for implementing the following scope of work in close coordination with CPS:

- **Key stakeholder interviews:** The Type 2 Consultant at three points in time during the project (beginning Year One, end Year One, End Year Two) will conduct interviews with key stakeholders to provide data related to the intended program and its implementation, as well as perceived program impact.

- **Web-based surveys-** Each Type 2 Consultant will be responsible for developing and administrating we-based surveys of both teachers and students at the beginning and end of each project year to collect data related to the key project objectives and performance measures. The student survey will include items related to student attitudes/interest in Science, Technology, Engineering, and Mathematics (STEM), self-reported grades/academic performance, previous participation in STEM activities and courses,

intended college major, and perceived impact. Teacher surveys will include perceptions of student performance and interest/attitudes, self-reported impact on teacher content knowledge, and items related to teacher awareness of NASA resources.

- **Site Visits:** Each Type 2 Consultant will continue to conduct two site visit 3 days duration each year to visit program sites including, but not limited to, summer workshop locations and participating schools. Site visit may include observations of the intensive workshops and student science fair, interviews and/or focus with students and teachers, and the collection of extant data and documents.

- **Reporting Structure:** Each Type 2 Consultant will continue to develop a reporting structure that provides CPS leadership and the Type 1 Consultants with timely formative data to make necessary program improvements. In addition, the Type 2 Consultant will produce for CPS leadership and the Type 1 Consultants an annual report that collects and summarizes all evaluation findings.

### **DELIVERABLES**

Consultants will continue to provide support and expertise to create a new elective science course, the Capstone Course in Space Science, for CPS. This course will teach students about space science using educational materials and scientific data that is made publicly available by the National Aeronautics and Space Administration (NASA). Each Type 1 Consultant will continue to be responsible for all aspects of development and implementation of the Capstone Course in Space Science, including, as applicable, curriculum development, assessment development, teacher professional development, and facilitation of professional learning and teacher networks within and among schools. To that end, each Type 1 Consultant will continue to provide the following deliverables:

- An intensive 120 hour workshop conducted in the summer for teachers and students centered around a NASA mission or program as outlined in the NASA GK-12 grant submission;
- An alignment matrix for the course that identifies the Illinois Learning Standards (ILS) and the College Readiness Standards (CRS) addressed throughout the year with the unit in which this will occur;
- A Course Planning Guide that provides a course overview, a weekly assessment guide, course goals and learning targets, and a teacher guide;
- A model lesson that corresponds to the NASA mission or program that is addressed by the unit;
- One formative assessment for each unit and 6 summative assessments to be used at the end of each unit as well as at the end of the course;
- A professional development plan that outlines how teachers will be prepared to teach the course during a 30 hour summer workshop as well as how teachers will be supported with 30 hours of professional development throughout the year; and
- Professional development materials (e.g. workshop agendas, slides, handouts, evaluations) for the 30 hour summer workshop and the 30 hours of professional development provided during the school year at dates to be agreed upon by CPS and the Type 1 Consultants.

Each Type 2 Consultant will continue to provide:

- An overall evaluation plan for the project;
- A web survey for teacher participants and a web survey for student participants;
- An interview and observation protocol for site visits.

### **OUTCOMES**

Consultant's services will produce a new science elective course focused on space science and built around publicly available NASA educational materials and data, which can be included in the course catalog of all the high schools within CPS. This course should produce marked increases in fourth year science enrollment as well as increased instructional rigor and student engagement in those fourth year science electives. In addition, is expected that data analyze and student inquiry design of this course will cause more students to participate in the CPS Student Science Fair; thereby, making themselves eligible for scholarship opportunities. Ultimately, success in this effort will be defined primarily by improvements in student achievement and attainment, as well as improvements in post-secondary outcomes for

students and the professional school climate for teachers.

**COMPENSATION**

Consultant shall be paid during this option period as follows: in accordance with the unit prices contained in their agreements, not to exceed the sum of \$1,499,964.00 in the aggregate.

**AUTHORIZATION**

Authorize the General Counsel to include other relevant terms and conditions in the written option document. Authorize the President and Secretary to execute the option document. Authorize Director of Science to execute all ancillary documents required to administer or effectuate this option agreement.

**AFFIRMATIVE ACTION**

The M/WBE participation goals for the contract include: 25% total MBE and 5% total WBE. Pursuant to Section 5.2 of the Remedial Program for Minority and Women Business Enterprise Participation in Goods and Services Contracts, the following consultants are exempt from review because the entities are Not-for-Profit organizations or Universities:

- 1) Loyola University Chicago - Type 1
- 2) Northwestern University - Type 1
- 3) Adler Planetarium & Astronomy Museum - Type 1
- 4) DePaul University - Type 1
- 5) University of Chicago - Type 1
- 6) Indiana University - Type 2

**LSC REVIEW**

Local School Council approval is not applicable to this report.

**FINANCIAL:**

Charge to: Office of Science

Source of Funds: NASA Grant (NNX09AH88A)

Amount: \$1,499,964.00

13715-326-54125-221648-541201-2012	\$1,499,964.00
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**CFDA#:** Not Applicable

**GENERAL CONDITIONS**

Inspector General - Each party to the agreement shall acknowledge that, in accordance with 105 ILCS 5/34-13.1, the Inspector General of the Chicago Board of Education has the authority to conduct certain investigations and that the Inspector General shall have access to all information and personnel necessary to conduct those investigations.

Conflicts - The agreement shall not be legally binding on the Board if entered into in violation of the provisions of 105 ILCS 5/34-21.3 which restricts the employment of, or the letting of contracts to, former Board members during the one year period following expiration or other termination of their terms of office.

Indebtedness - The Board's Indebtedness Policy adopted June 26, 1996 (96-0626-PO3), as amended from time to time, shall be incorporated into and made a part of the agreement.

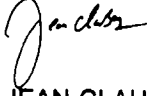
Ethics - The Board's Ethics Code adopted June 23, 2004 (04-0623-PO4), as amended from time to time, shall be incorporated into and made a part of the agreement.

Contingent Liability - The agreement shall contain the clause that any expenditure beyond the current fiscal year is deemed a contingent liability, subject to appropriation in the subsequent fiscal year budget(s).


Approved for Consideration:

  
OPAL L. WALLS  
Chief Purchasing Officer

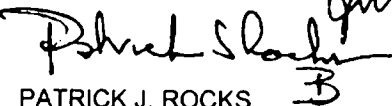
Approved:

  
JEAN-CLAUDE BRIZARD  
Chief Executive Officer

Within Appropriation:

  
MELANIE A. SHAKER  
Interim Chief Financial Officer

Approved as to Legal Form:

  
PATRICK J. ROCKS  
General Counsel

- |  |   |
|--|---|
| 1)<br>Vendor # 14852<br>LOYOLA UNIVERSITY<br>6525 N. SHERIDAN, STE. 119<br>CHICAGO, IL 60626<br>David Slavesky<br>773-508-8352 | 5)<br>Vendor # 33123<br>UNIVERSITY OF CHICAGO<br>5801 SOUTH ELLIS AVE.<br>CHICAGO, IL 60637<br>Don York<br>773-702-8604   |
| 2)<br>Vendor # 49090<br>NORTHWESTERN UNIVERSITY<br>633 CLARK STREET<br>EVANSTON, IL 60208<br>Susan Ross<br>847-491-3003        | 6)<br>Vendor # 91554<br>INDIANA UNIVERSITY<br>P.O. BOX 1847<br>BLOOMINGTON, IN 47402-1847<br>Adam Maltese<br>812-606-1829 |
| 3)<br>Vendor # 22637<br>ADLER PLANETARIUM, THE<br>1300 S LAKE SHORE DR<br>CHICAGO, IL 60605<br>Karen Carney<br>312-922-7827    |   |
| 4)<br>Vendor # 37159<br>DEPAUL UNIVERSITY<br>1 E. JACKSON<br>CHICAGO, IL 60604-2287<br>Robert McCarthy<br>312-362-5409         |   |