

Statement of Work

Instruction of EO3525 Communications Engineering Electrical and Computer Engineering Department Naval Postgraduate School

1.0 Background/Introduction

The Department of Electrical and Computer Engineering at the Naval Postgraduate School (NPS) has a requirement for contractual services to deliver the course EO3525 Communications Engineering to resident students during the Summer Quarter, Academic Year 2016.

2.0 Scope

Contractor support of a knowledgeable instructor is needed to deliver one section of EO3525. This course is a broad-based course at the advanced level for graduate students in engineering curriculums but not majoring in Electrical and Computer Engineering. The influence of noise and interference on the design and selection of digital communications systems is analyzed. Topics include link budget analysis and signal-to-noise ratio calculations, receiver performance for various digital modulation techniques, bandwidth and signal power trade-offs, an introduction to spread spectrum communications, and multiple access techniques. Examples of military communications systems are included.

The contractor shall also update existing lecture and laboratory material to maintain consistency with the current state of the art in the field and deliver all material to the ECE department chair by the end of the Summer quarter.

3.0 Tasks

The contractor shall perform the following tasks:

- 3.1 The contractor shall update and deliver a course within the existing syllabus which articulates the learning objectives, the enabling objectives, and the grading criteria and have it reviewed by the ECE department Technical Point of Contact prior to course delivery. The contractor shall respond to student requests within 48 hours and provide written feedback on papers and projects within 5 business days.
- 3.2 The contractor shall refine and update lectures and store supporting materials on a Sakai site for student access.
- 3.3 The contractor shall assign homework readings, assignments and/or projects to support the learning environment for each course that is taught. The contractor shall periodically monitor student progress by evaluating students through quizzes and/or exams, papers or projects.
- 3.4 The contractor shall assign a final comprehensive examination or final project/paper that will be issued to the students during finals week at the end of Summer quarter AY2016.
- 3.5 The contractor shall conduct regular laboratory sessions that have a well-defined write up with instructions as to what is required of the students for a laboratory report.
- 3.6 The contractor shall prepare a mid-term student assessment and course briefing mid-way through the Summer Quarter.
- 3.7 The contractor shall provide 2 hours per week of regularly scheduled office hours during the Summer quarter of AY2016 at the Naval Postgraduate School.

- 3.8 The contractor shall submit student grade recommendations and submit them to the NPS Technical Point of Contact (POC) by the end of finals week at the end of Summer quarter AY2016.
- 3.9 The contractor shall conduct an overall course assessment and make suggestions for refinement

4.0 Deliverables

The contractor shall be responsible for preparing deliverables in support of the tasks identified in this SOW.

- 4.1 Syllabus and Course Materials
- 4.2 Updated Homework and Laboratory Experiments
- 4.3 Updated and developed homework
- 4.4 Final examination, project, or paper
- 4.5 Lab-write ups
- 4.6 Mid-way course assessment
- 4.7 Held office hours
- 4.8 Suggested Grades
- 4.9 Complete Course Journal (submitted via Sakai site)

Performance Work Summary

Task	What will be inspected	Acceptable Quality Level (AQL)	Method	Frequency
3.1 and 3.2	Updated syllabus and course materials on Sakai Site	Contains appropriate PowerPoint presentations to conduct class and supplemental reading materials that meet the course objectives. Course materials must be uploaded to Sakai by one week prior to delivery in the classroom	100% Inspection by the TPOC.	Inspection one week prior to delivery to students in the classroom.
3.3	Updated and any Developed homework readings, assignments and quizzes, papers, projects, and exam results.	Academic Quality	100% Inspection by the TPOC.	Due in Sakai as updated or developed
3.4	Final, comprehensive examination or final project/paper	Academic Quality Recommended grades to be submitted to TPOC. Instructor will report to the Academic Associate or the Program Officer any student that has not successfully passed an exam or project.	100% Inspection by the TPOC.	Inspection one week prior to delivery to students in the classroom.
3.5	Lab write ups	Typed and submitted into the course journal	Random Sampling	Within 1 week of delivered lab
3.6	Mid-way student assessment	Instructor will provide the TPOC with a progress report. This will include the grades from the exam and an evaluation of class at that point. Instructor will report to the Academic Associate	100% Inspection	Mid-way through Summer quarter at a

		or the Program Officer any student that has not successfully passed an exam or project.		mutually agreed upon time.
3.7	Office hours	Instructor will post office hours and provide a list of students met with weekly.	Random Sampling	Continuous
3.8	Submission of suggested grades.	Instructor must have grades to the TPOC by an agreed upon date following the end of the Summer Quarter.	100% Inspection by TPOC	End of Course
3.9	Course Journal (in Sakai)	Complete portrayal of the course materials, lab materials, and instructor notes	100% Inspection by TPOC	End of Course

The surveillance method for the deliverables listed above will be personal observation at NPS. If performance falls below the AQL defined above, the Contracting Officer's Representative (COR) shall document the instance(s), coordinate with the Contracting Officer and advise the Contractor. The Contractor will be requested to review the documentation and provide a written response on how performance will be corrected in the future. Re-performance of any work for failure to perform in accordance with the specified AQL or task requirement shall be completed at the Contractor's own expense and at no additional cost to the Government.

5.0 Minimum Requirements

- 5.1 The contractor must be experienced at teaching graduate-level courses to U.S. and International military officers and DOD civilian students in subjects such as electrical engineering, computer engineering, electronic warfare, communications, or other closely related technical disciplines.
- 5.2 The contractor is required to have a strong academic background as demonstrated by a graduate degree in Electrical Engineering, Electrical and Computer Engineering, Electronic Warfare, or Physics.
- 5.3 The contractor must have an acceptable record of good-quality academic publications in respected professional journals and conference proceedings.
- 5.4 The contractor is required to be a subject matter expert in the research and design of communications systems for military applications, including ground-to-ground, ground-to-air and air-to-ground, ground-to-space and space-to-ground. The contractor must be a subject matter expert on the influence of noise and interference on the design and selection of digital communications systems. The contractor must be a subject matter expert on link budget analysis and signal-to-noise ratio calculations, receiver performance for various digital modulation techniques, bandwidth and signal power trade-offs. The contractor must be an expert on spread spectrum communications and multiple access techniques.
- 5.5 The contractor must be a subject matter expert in military applications for communications systems, including ground-to-ground, ground-to-air and air-to-ground, and ground-to-space and space-to-ground.

6.0 Period of Performance

20 June 2016 through 30 September 2016.

7.0 Place of Performance

Office of Contracting and Logistics Management
Revised 10/12/2012

Monterey, CA campus of the Naval Postgraduate School. Specific buildings and rooms for lectures and laboratories to be assigned by NPS scheduler before start of Summer quarter. Faculty office to be assigned in Spanagel Hall by ECE department chair. A PC connected to the NPS ERN computer network will be provided, along with an NPS email account.

8.0 Work Week and Hours of Operation:

The Contractor shall provide services during normal working hours excluding federal holidays. Normal working hours are 0730-1630, Monday through Friday, unless requirements dictate otherwise. Exceptions can be permitted by the COR upon request and at the COR's discretion.

Work required on-site at NPS shall be performed by the Contractor, as required.

Following is a list of holidays observed by the Government.

Name of Holiday	Time of Observance
New Year's Day	1 January
Martin Luther King Jr. Day	Third Monday in January
President's Day	Third Monday in February
Memorial Day	Last Monday in May
Independence Day	4 July
Labor Day	First Monday in September
Columbus Day	Second Monday in October
Veteran's Day	11 November
Thanksgiving Day	Fourth Thursday in November
Christmas Day	25 December

If any of the above holidays occur on a Saturday or a Sunday, then such holiday shall be observed by the Contractor in accordance with the practice as observed by the assigned Government employees at the using activity

9.0 Government Furnished Property

The government shall provide appropriate office space, supplies and equipment to perform tasks at NPS. Any Government-provided property and information shall be used for official Government business only. Any applicable documents that are authorized for use in performance of these services shall be provided, in accordance with security and contract terms and conditions.

10.0 Travel

No travel is anticipated. Any travel must be in accordance with the Joint Travel Regulations

11.0 Classification

Unclassified. Must be a US Citizen

Privacy Act Statement (no action required, leave this statement)

“Pursuant to Title 5 United States Code 552a(m)(1), the contractor and all employees of the contractor working under this contract are required to comply with the requirements of 5 U.S.C. 552a (“The Privacy Act of 1974”).”

12.0 Non-Personal Services Statement (no action required, leave this statement)

Contractor employees performing services under this order will be controlled, directed, and supervised at all times by management personnel of the contractor. Contractor management will insure that employees properly comply with the performance work standards outlined in the SOW. Contractor employees will perform their duties independent of, and without the supervision of, any Government official or other Defense Contractor. The tasks, duties, and responsibilities set forth in the task order may not be interpreted or implemented in any manner that results in any contractor employee creating or modifying Federal policy, obligating the appropriated funds of the United States Government, overseeing the work of Federal employees, or otherwise violating the prohibitions set forth in Parts 7.5 and 37.1 of the Federal Acquisition Regulation (FAR). The Government will control access to the facility and will perform the inspection and acceptance of the completed work.

13.0 Contractor Identification (no action required, leave this statement)

In accordance with DFAR 211.106, there shall be a clear distinction between Government employees and service contractor employees. Service contractor employees shall identify themselves as contractor personnel by introducing themselves or being introduced as contractor personnel and displaying distinguishing badges or other visible identification for meetings with Government personnel. In addition, contractor personnel shall appropriately identify themselves as contractor employees in telephone conversations and in formal and informal written correspondence.

14.0 Invoice Schedule (no action required, leave this statement)

Contractor may invoice monthly in arrears.

Invoices shall be submitted once a month for services rendered and travel performed during the previous month. All invoices need to be submitted electronically via WAWF. Hard copy invoices cannot be accepted. Only one invoice may be submitted per month. Invoices must identify the invoicing period. If charges against more than one line item have occurred during the invoicing period, all charges must be combined into one invoice. If invoicing against travel, the invoice must contain a summary detailing the charges as well as an attachment of supporting documentation. The contractor’s failure to include the necessary information or a more frequent invoice submission than authorized will result in invoices being rejected.

WAWF

SUP 5252.232-9402 INVOICING AND PAYMENT (WAWF) INSTRUCTIONS (April 2008).

(a) Invoices for goods received or services rendered under this contract shall be submitted electronically through Wide Area Work Flow -- Receipt and Acceptance (WAWF):

(1) The vendor shall have their cage code activated by calling 866-618-5988. Once activated, the vendor shall self-register at the web site <https://wawf.eb.mil>. Vendor training is available

on the Internet at <http://www.wawftraining.com>. Additional support can be obtained by calling the NAVY WAWF Assistance Line: 1-866-618-5988.

(2) WAWF Vendor "Quick Reference" Guides are located at the following web site: <http://www.acquisition.navy.mil/navyaos/content/view/full/3521>.

(3) Select the invoice type within WAWF as specified below. Back up documentation (such as timesheets, receiving reports etc.) can be included and attached to the invoice in WAWF. Attachments created in any Microsoft Office product are attachable to the invoice in WAWF. Total limit for each file is not to exceed 2MB. Multiple attachments are allowed.

(b) The following information, regarding invoice routing DODAAC's, must be entered for completion of the invoice in WAWF: (see next page for WAWF table)

WAWF Invoice Type:	2 in 1	
Contract Number	Leave blank	
Task Order Number	Leave blank	
Issuing Office DODAAC	N62271	
Admin Office DODAAC:	N62271	
Inspector DODAAC (usually only used when Inspector & Acceptor are different people):	NA	
Service/Supply Acceptor DoDAAC (for Combo), Service Acceptor DODAAC (for 2 in 1), Service Approver DODAAC (Cost voucher)	Leave blank	
Acceptance At Other	N62271	
Ship to /Extension	N62271	
Local Processing Office (Certifier)	N62271	
DCAA Office DODAAC (Used on Cost Voucher's only):	NA	
Paying Office DODAAC:	N68732	
Acceptor/COR Email Address	Contracts_Invoices@nps.edu	
Send additional emails notifications to:		
For each invoice / cost voucher submitted for payment, the contractor shall also email the WAWF automated invoice notice directly to the following points of contact):		
Email	Phone	Role
Douglas J. Fouts	(831) 656-2852	Technical Point of Contact
		LPO Certifier
		Accepting Official
		NPS Contract Specialist

(c) Contractors approved by DCAA for direct billing will not process vouchers through DCAA, but may submit directly to DFAS. Vendors MUST still provide a copy of the invoice and any applicable documentation that supports payment to the Acceptor/Contracting Officer's Representative (COR) if applicable. Additionally, a copy of the invoice(s) and attachment(s) at time of submission in WAWF must also be provided to each point of contact identified in section (d) of this clause by email. If the invoice and/or receiving report are delivered in the email as an attachment it must be provided as a .PDF, Microsoft Office product or other mutually agreed upon form between the Contracting Officer and vendor.

NPS Technical POC: Douglas J. Fouts, Professor, ECE Department, NPS

NPS POC for Acceptance of Deliverables: Douglas J. Fouts, Professor, ECE Department, NPS

NPS Financial POC: (Michael Vinluan, GSEAS, x7859)

NPS Contracting POC: (to be filled out by NPS Contracting Office)