



**FLORIDA INTERNATIONAL UNIVERSITY  
UNIVERSITY CURRICULUM COMMITTEE**

*Proposal for a New Course*

**DO NOT TYPE IN THIS BOX**

Bulletin # : \_\_\_\_\_

Academic Year : \_\_\_\_\_

1. **School/College** Click to select

**Div./Dept. in Which Taught** Knight Foundation School of Computing and Information Sciences

2. **COT** 4 **CIP Code (Leave this blank):** \_\_\_\_\_  
Alpha Prefix    1st Digit    Last 3 Digits    "C"-lec-lab "L"-Lab    Cr. Hrs.

3. **Grading Method (select one):**  Graded  Pass/Fail

4a. **Course Title** Fundamentals of Quantum Computing

b. **Abbreviated course Title (for computer class schedules, transcripts)** Fund of Quantum Computing

LIMITED TO 25 Characters (including spaces)

5. **Statewide Course Numbering Subject Matter Area** Computing Theory

6. **Catalog Description/Major Topics (not to exceed 200 characters including spaces)**

*College of Medicine and College of Law: Attach description not exceeding 1,000 characters including spaces.*

This course introduces basic concepts in quantum theory, applications of quantum computing, and a review of quantum algorithms.

7. **Attach detailed syllabus course outline and course justification on separate page(s).**

8. **Prerequisite(s):** (COP 3337 or COP 3804) and (COT 3100 or MAD 1100 or MAD 2104)

9. **Corequisite(s):** \_\_\_\_\_

10. **Objective(s) of Course:**

Describe quantum mechanics concepts  
Explain and apply linear algebra operations  
Discuss quantum computer systems  
Analyze quantum application software  
Design and evaluate quantum programs

11. **Does this course duplicate/overlap other courses at FIU?**  No  Yes

If yes, please explain: \_\_\_\_\_

12. **What other closely related department(s) have been consulted about this course?**

Department of Electrical and Computer Engineering

13. **Is this course used for the assessment of a program or a certificate (if yes, then send a notification to assessment@fiu.edu)?**  No  Yes

**PROPOSAL REQUESTED BY:**

**Faculty Contact** Nagarajan Prabkar

**(Type name)**

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**(Email address)**

DocuSigned by:  
*Nagarajan Prabakar*

**(Signature)**

305-348-2033

**(Phone number)**

11 / 14 / 2022

**Chairperson (Dept./Div.)** Jason Liu

**(Type name)**

**(Signature)**

\_\_\_\_\_ / \_\_\_\_\_ / 2022

**Chairperson (Curr. Comm.)** \_\_\_\_\_

**(Type name)**

**(Signature)**

\_\_\_\_\_ / \_\_\_\_\_ / 2022

**College/School Dean** John Volakis

**(Type name)**

**(Signature)**

\_\_\_\_\_ / \_\_\_\_\_ / 2022

Submit one original form. Attach one copy of the course justification and a draft of the course syllabus for this New Course Proposal. The syllabus should include the course description, objectives, learning outcomes, major topics, and textbooks.