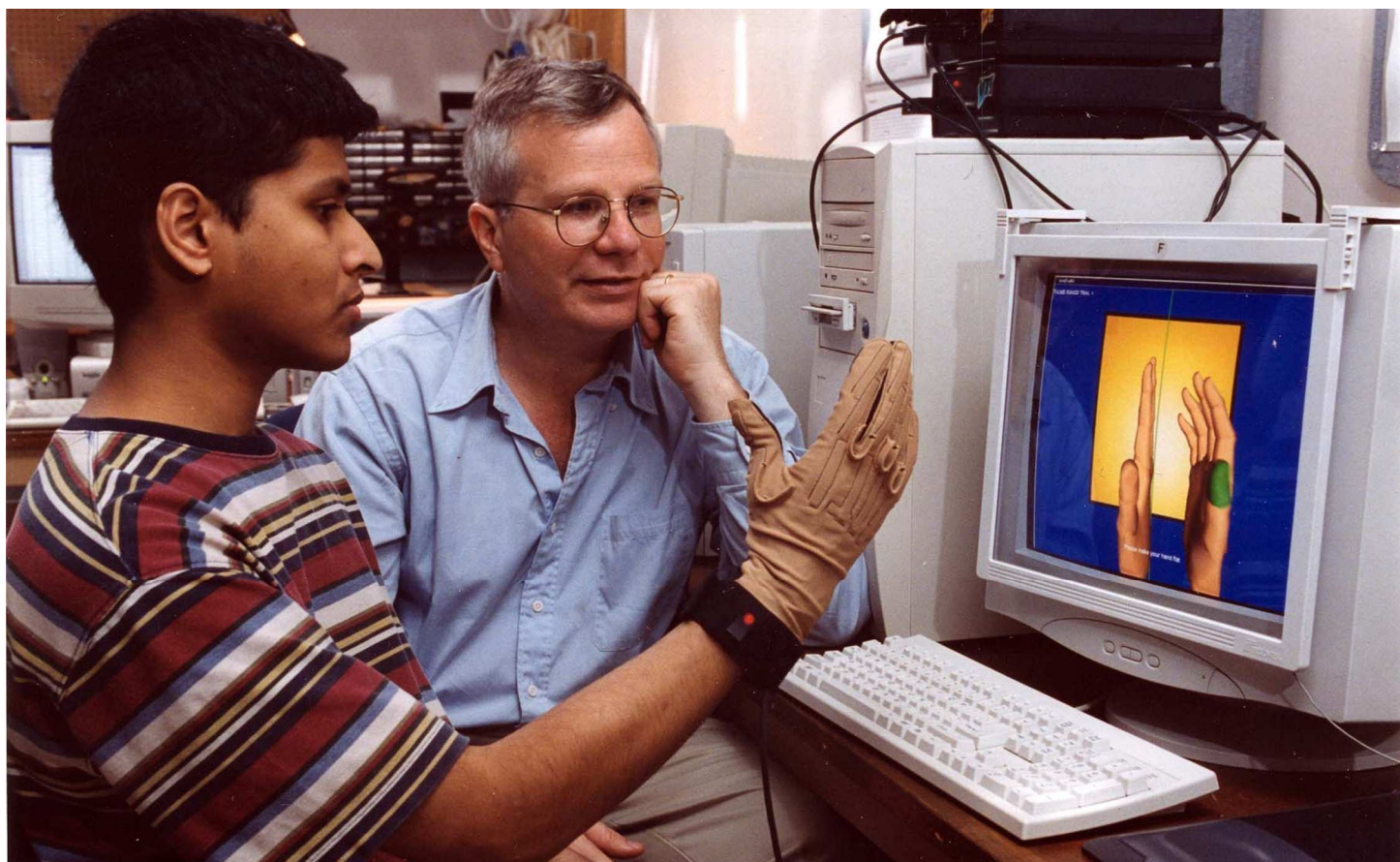


The Graduate Certificate in Physiology and HCI



Department of Information Systems

College of Computing Sciences

New Jersey Institute of Technology

WHY PURSUE A GRADUATE CERTIFICATE IN PHYSIOLOGY AND HCI ?

The field of advanced medical device design and manufacturing is burgeoning today. Engineers and information systems experts regularly team with medical professionals (doctors and clinicians) to offer rehabilitation, assistive technology and diagnostic solutions for recovering patients as well as people with physical disabilities. This collaboration is necessary to ensure that the computer interfaces of these devices are designed in ways which maximize effectiveness and overall ease of use. Courses in the Physiology and HCI graduate certificate will help you to understand both the human and the interface side of physiology-based computing and enable you to help analyze, design and test these interfaces.

WHY STUDY PHYSIOLOGY AND HCI AT NJIT?

Physiology and HCI is a unique program only available at NJIT. Educators and researchers from two different NJIT academic departments—Information Systems and Biomedical Engineering—have collaborated to offer this exceptional array of courses. NJIT offers Masters degrees in each of these areas through our Newark College of Engineering and our College of Computing Sciences. With one of the most computing intensive campuses in the world, NJIT is a pioneer in the application of new technologies as research and learning tools. The College of Computing Sciences educates one of the largest groups of computing students in the nation and has outstanding faculty dedicated to the preparing students for exciting careers in this field. Its multi-million dollar smart campus initiative, for example, designs next-generation social networking interfaces for everyday devices such as cell phones. Among the many research initiatives in biomedical engineering, the university's Rehabilitative Engineering Research Center, funded by a \$4.75 million grant from the National Institute on Disability and Rehabilitation Research, is developing technologies to help children with orthopedic disabilities linked to cerebral palsy, brain injuries and other conditions.

WHAT WILL I LEARN?

You will learn about human physiology and how to use this in programming computer applications. Topics covered include: user interface design for wireless devices; how to analyze, design and test applications; applications in speech, bioelectrical signals, images and virtual reality; and the design and effective use of multimedia within applications.

WHAT COURSES ARE OFFERED?

Required: Core Courses

BME 675 Computer Methods in Biomedical Engineering

Select one (1) from:

BME 661 Neural Engineering (see note)

BME 669 Physiology*

BIOL 612 Comparative Animal Physiology

Select two (2) from:

IS 658 Multimedia Systems*

IS 663 Advanced Systems Analysis and Design*

IS 686 Pervasive Computing: An HCI Perspective

Complete course descriptions can be found in the NJIT Online Catalog at <http://catalog.njit.edu/graduate>.

Note: Only under the condition that the student has an undergraduate course in physiology.

*Now or shortly available online.

Courses are subject to change.

√ Take care to select courses in proper order. Check course descriptions, because they state if one course must be taken before (i.e.; is a prerequisite to) another.

WHERE ARE THE CLASSES OFFERED?

Some courses are available **online** and all courses are available at NJIT's Newark campus. Customized NJIT degrees and academic certificates can be brought on-site to your company or customized and conducted at a location convenient to a consortium of companies.

IS FINANCIAL AID AVAILABLE?

There may be sources of financial aid or tax credits available:

<http://adultlearner.njit.edu/admissions/financialaid/index.php>.

WHAT IS THE TUITION FOR GRADUATE COURSES?

Use the tuition calculator to see the cost of your education quickly and easily. Visit:

<http://adultlearner.njit.edu/admissions/financialaid>.

CAN THE GRADUATE CERTIFICATE BE APPLIED TO AN ADVANCED DEGREE?

Courses in the Graduate Certificate program in Physiology and HCI can be wholly applied to NJIT's MS in Information Systems or the MS in Biomedical Engineering.

HOW DOES THE GRADUATE CERTIFICATE PROGRAM WORK?

In any given year, NJIT offers a new slate of Graduate Certificates, each in a specific area which is in a fast growing and employable profession. Each stand-alone credential is a milestone in its own right and can be a 12-credit springboard to a matching Masters Degree program at NJIT or elsewhere. The credential can be completed in as little as one academic year of part-time study. Many can be studied online, in whole or partially. The straightforward and rapid admissions process requires possession of an undergraduate degree with a satisfactory grade point average. A GRE or GMAT score is not a pre-requisite. Depending on the program, courses can be taken online, on campus, or at NJIT extension sites around New Jersey. For a complete list of available Graduate Certificates, please visit: <http://www.njit.edu/gradcert>.

BRINGING A GRADUATE CERTIFICATE TO YOUR COMPANY

Arrangements can be made to bring a Graduate Certificate or Master's program on-site to your company. A customized Graduate Certificate can also be offered to match your company's area of technological and managerial specialty. For more information about Company Collaborative Graduate Certificates or enrollment in any of our Graduate Certificates, please contact Continuing Professional Education.

FOR FURTHER INFORMATION:

Division of Continuing Professional Education

1-800-624-9850 (Toll Free)

1-973-596-3060 (New Jersey)

Email: cpe@njit.edu

ON THE WEB:

<http://www.njit.edu/gradcert> / <http://cpe.njit.edu/mobi>

APPLY ONLINE:

<http://adultlearner.njit.edu/admissions>