

THE REGENTS OF

Richmond University

ON THE NOMINATION OF THE COUNCIL OF THE GRADUATE DIVISION
HAVE CONFERRED UPON

Roy David Williams

HAVING DEMONSTRATED ABILITY
BY ORIGINAL RESEARCH CUM LAUDE - WITH DISTINCTION IN

Nuclear Engineering

THE DEGREE

Doctor of Philosophy

WITH ALL THE RIGHTS AND PRIVILEGES THERETO PERTAINING
GIVEN THIS TWENTY-FOURTH DAY OF MAY IN THE YEAR
NINETEEN HUNDRED AND NINETY-FOUR

Alfred
PRESIDENT OF THE REGENTS

Ann Zeller
DEAN OF THE GRADUATE DIVISION



John Boyd
PRESIDENT OF THE UNIVERSITY

Paul M. Houtage
CHANCELLOR

Richmond University

Student Name: Ray David Williams
 Student ID: 2182068

Degree Program: Ph.D. - Nuclear Engineering
 Graduation Date: May 24, 1994

AUTUMN QUARTER 1990
 CHM 711 NUCLEAR REACTOR ENGINEERING I 3.0 A 12.0
 CHM 720 CHEMISTRY: FUEL CYCLE 3.0 A- 11.1
 MTH 722 MATHEMATICS 3.0 A- 11.1
 9.0 34.2
 9.0 ATTM 9.0 PSSD 34.2 G.P.

AUTUMN QUARTER 1992
 CHM 780 FUEL MANAGEMENT 3.0 A 12.0
 CHM 779 NUCLEAR MATERIALS 3.0 A 12.0
 CHM 900 RESEARCH 3.0 A 12.0
 9.0 36.0
 63.0 ATTM 63.0 PSSD 245.7 G.P.

WINTER QUARTER 1991
 CHM 712 NUCLEAR REACTOR ENGINEERING II 3.0 A 12.0
 CHM 730 NEUTRONS TRANSPORT THEORY 3.0 A 12.0
 CHM 739 NUCLEAR FACILITIES ENVIRONMENTAL IMPACT 3.0 A 12.0
 9.0 36.0
 18.0 ATTM 18.0 PSSD 70.2 G.P.

WINTER QUARTER 1993
 CHM 790 MATHEMATICAL PROCESSES 3.0 A- 11.1
 CHM 796 MODELING IN NUCLEAR TECHNOLOGY 3.0 A 12.0
 CHM 900 RESEARCH 3.0 A 12.0
 9.0 36.1
 72.0 ATTM 72.0 PSSD 280.8 G.P.

SPRING QUARTER 1991
 CHM 738 NUCLEAR FUEL TECHNOLOGY 3.0 A 12.0
 CHM 740 NUCLEAR POWER PLANT TECHNOLOGY 3.0 A 12.0
 CHM 741 STRUCTURAL MECHANICS 3.0 A- 11.1
 9.0 35.1
 27.0 ATTM 27.0 PSSD 105.3 G.P.

SPRING QUARTER 1993
 CHM 810 NUCLEAR POWER PLANTS 3.0 A 12.0
 CHM 822 NUCLEAR ENGINEERING ANALYSIS 3.0 A 12.0
 CHM 900 RESEARCH 3.0 A 12.0
 9.0 36.0
 81.0 ATTM 81.0 PSSD 316.8 G.P.

AUTUMN QUARTER 1991
 CHM 747 RADIOLOGY AND RADIATION PROTECTION 3.0 A 12.0
 CHM 750 REACTOR PHYSICS 3.0 A- 11.1
 CHM 755 REACTOR ENGINEERING MATERIALS 3.0 A 12.0
 9.0 35.1
 36.0 ATTM 36.0 PSSD 140.4 G.P.

AUTUMN QUARTER 1993
 CHM 850 NUCLEAR WASTE 3.0 A- 11.1
 CHM 853 RADIATION SCIENCE 3.0 A 12.0
 CHM 900 RESEARCH 3.0 A 12.0
 9.0 35.1
 90.0 ATTM 90.0 PSSD 351.9 G.P.

WINTER QUARTER 1992
 CHM 756 SAFETY OF NUCLEAR FACILITIES 3.0 A- 11.1
 CHM 752 RADIOACTIVE SUBSTANCES 3.0 A 12.0
 CHM 761 BIOLOGICAL INDICATORS 3.0 A- 11.1
 9.0 34.2
 45.0 ATTM 45.0 PSSD 174.6 G.P.

WINTER QUARTER 1994
 CHM 845 SAFETY ASSESSMENT 6.0 A 24.0
 CHM 900 RESEARCH 3.0 A 12.0
 9.0 36.0
 99.0 ATTM 99.0 PSSD 387.9 G.P.

SPRING QUARTER 1992
 CHM 765 THERMODYNAMICS 3.0 A- 11.1
 CHM 770 FLUID MECHANICS 3.0 A 12.0
 CHM 772 FRACTURE MECHANICS 3.0 A 12.0
 9.0 35.1
 54.0 ATTM 54.0 PSSD 209.7 G.P.

SPRING QUARTER 1994
 CHM 835 REACTOR PHYSICS 3.0 A 12.0
 CHM 859 REACTOR INSTRUMENTATION 3.0 A 12.0
 CHM 900 RESEARCH 3.0 A 12.0
 9.0 36.0
 108.0 ATTM 108.0 PSSD 423.9 G.P.

3.93 G.P.A.
Phillip Samuels
 Phillip Samuels, Registrar

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353 G.P.A.
 Phillip Samuels Registrar

RICHMONDS UNIVERSITY

CORRESPONDENCE ADDRESS: 79 GORDON STREET, LONDON WC1H 0QB UNITED KINGDOM

May 24, 1994

To Whom It May Concern,

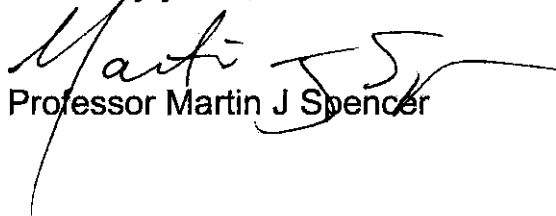
This letter shall serve to certify that Roy Williams displayed consistent diligence in his approach and execution of the subject material allocated to him during his studies at Richmonds University.

The course work he submitted, along with his examination papers was of a high caliber and was presented in a clear, concise and organized fashion. Correspondence between the graduate and the University depicts Roy as a most likeable individual and it was a pleasure to be associated with him.

It is the unanimous opinion of the academic staff that Roy would be an asset to any organization choosing to utilize his services.

We at Richmonds University wish Roy every success in his future endeavors.

Sincerely yours,


Professor Martin J Spencer

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May 24, 1994

To Whom It May Concern,

It is with great pleasure for the staff and faculty of Richmonds University to recommend our student, Roy Williams.

Roy has completed his numerous assignments with enthusiasm and a level of expertise commensurate with the degree with which he has been awarded. Especially impressive has been the methodical efficiency of his coursework.

Roy has proved to be of steadfast and honest character, with sterling leadership qualities.

Professors and staff take pride in the belief that Roy will be an asset and a credit not only to his employer, but to society at large.

Very truly yours,


Marcus Fleming Jr