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A GUIDE TO CANADIAN GRADUATE STUDIES IN METALLURGY AND MATERIALS 1997

The information given below is a general guide to graduate programs in metallurgy and material science at Canadian universities. As a general rule, students who do not have private funds or a graduate scholarship from their own countries may be qualified to receive a graduate assistantship from the University of interest. These graduate assistantships, which are awarded on the basis of academic merit, cover living expenses in Canada in return for some help in a teaching program. However, all students, whether privately funded or financially supported by a graduate assistantship must be academically qualified for research and graduate studies and are only accepted by the University on the basis of a superior academic record.

Well-qualified students from any country are encouraged to apply to any of the Departments listed below. *Please do not write to the Canadian Metallurgical Quarterly.*

UNIVERSITY OF ALBERTA

Programs offered in ceramics, chemical metallurgy, corrosion, electronic materials, hydrometallurgy, mineral/materials processing, physical metallurgy, mechanical metallurgy, polymers and composites, welding metallurgy and processes, quality control of weldments.

Degrees offered: Master of Engineering, Master of Science, Doctor of Philosophy.

Number of Professors: 10

Present number of full-time Graduate Students: 20

For further information write to:

Dr Douglas Ivey
536 Chemical-Mineral Bldg.
Chemical and Materials Engineering
University of Alberta
Edmonton, Alberta
T6G 2G6

Telephone: (403) 492-2957

Fax: (403) 492-2881

E-Mail: doug.ivey@ualberta.ca

Vancouver, B.C.

V6T 1Z4

Contact Person: Mrs Joan Kitchen, Graduate Secretary

Telephone: Dr Tromans (604) 822-2378; Mrs J. Kitchen 604 822-4878

Fax: (604) 822-3619

E-Mail: joan@composites.ubc.ca

ÉCOLE POLYTECHNIQUE

Domaines d'études et de recherche: Comportement mécanique des matériaux, caractérisation microstructurale des matériaux, énergétique des matériaux et métallurgie des procédés, matériaux électrocatalytiques et électroniques, électrochimie et corrosion, céramiques et réfractaires.

Le Département de métallurgie et de génie des matériaux a regroupé plusieurs pôles d'activités en quatre centres et chaires de recherche qui collaborent étroitement avec l'industrie: le Centre de caractérisation microscopique des matériaux (CM)², le Centre de recherche en calcul thermique (CRCT), la Chaire Industrielle sur les réfractaires (CIREP), la Chaire Universitaire sur l'hydrogène.

Diplômes offerts: Maîtrise és Sciences appliquées, Philosophiae Doctor.

Nombre de professeurs: 12

Nombre de cours supérieurs offerts: 42

Reneseignements:

Professor Michel Rigaud
Metallurgy and Materials Engineering
Ecole Polytechnique
Box Office 6079
Station Centre-Ville
Montreal, Quebec
H3C 3A7

Telephone: (514) 858-6471

Fax: (514) 858-6469

E-Mail: mrigaud@mailsrv.polymtl.ca

UNIVERSITY OF BRITISH COLUMBIA

Programs offered in casting and solidification of metals, ceramic processes and properties, corrosion, fibre composites, hydrometallurgy and electrorefining, physical metallurgy, pyrometallurgy, remelting processes, thermomechanical processing and process modelling.

Degrees offered: Master of Engineering, Master of Science, Master of Applied Science, Doctor of Philosophy.

Number of Professors: 18

Present number of full-time Graduate Students: 50

For further information write to:

Dr D. Tromans, Graduate Advisor
Metals and Materials Engineering
University of British Columbia
309-6350 Stores Road

UNIVERSITÉ LAVAL

Programs offered in mineral processing, extractive metallurgy, corrosion and metal protection, boride and carbide ceramic, powder metallurgy, advanced steels, tribology, welding, solid state transformations and grain growth, composites, rapid solidification.

Official Language: French. Theses in English are accepted.

Degrees offered: Maîtrise en Génie de la métallurgie, Doctorat en Génie de la métallurgie.

Number of Professors: 12

Present number of full-time Graduate Students: 24

For further information write to:

René del Villar
Mining and Metallurgy
Université Laval
Cité Universitaire
Sanite Foy, Quebec
Canada G1K 7P4
Telephone: (418) 656-7487
Fax: (418) 656-5343
E-Mail: rene.delvillar@gmn.ulaval.ca

McGILL UNIVERSITY

Programs offered in mineral processing, hydrometallurgy, extractive and process metallurgy, steelmaking and steel processing, metal texture analysis, casting and liquid metal technology, ceramic engineering, environmental protection in metallurgy, physical metallurgy.

Degrees offered: Master of Engineering, Doctor of Philosophy, Graduate Diploma in Mining Engineering

Number of Professors: 20

Present number of full-time Graduate Students: 132

For further information write to:

Purnima Mujumdar (Graduate Secretary)
or Dr Stephen Yue, Director of Graduate Programs
Mining and Metallurgical Engineering
McGill University
3450 University Street
Montreal, Quebec
H3A 2A7
Telephone: (514) 398-4373; for Dr Yue (514) 398-8337
Fax: (514) 398-7099
E-Mail: purnima@minmet.lan.mcgill.ca

McMASTER UNIVERSITY

Programs offered in iron and steelmaking, transport phenomena, phase transformations and electron microscopy, mechanical behaviour, thermodynamics and electrochemistry, corrosion, ceramic materials (processing and properties), glass science, electro-optic materials, polymeric materials, composites.

Degrees offered: Master of Engineering in Materials Engineering, Master of Science in Materials Science, Doctor of Philosophy in Materials Science and Engineering

Number of Professors: 12

Present number of full-time Graduate Students: 40

For further information write to:

Administrative Coordinator
V. Czerneda
Department of Material Science and Engineering
McMaster University
JHE 357
Hamilton, Ontario
L8S 4L7
Telephone: (905) 525-9140 extension 24293
Fax: (905) 528-9295
E-Mail: czerned@mcmaster.ca
or through McMaster GOPHER.

QUEEN'S UNIVERSITY

Programs offered in pyrometallurgy, hydrometallurgy, electrometallurgy, plasma-reduction and consolidation, casting, steel, ceramics and glasses, composites, microstructure evolution, interface studies, crystal growth, phase transformation, liquid metals, diffusion.

Degrees offered: Master of Science in Engineering, Doctor of Philosophy.

Number of Professors: 9

Present number of full-time Graduate Students: 30

For further information write to:

Professor J. Cameron
Coordinator of Graduate Studies
Materials and Metallurgical Engineering
Queen's University
Nicol Hall
Kingston, Ontario, Canada
K7L 3N6
Telephone: (613) 545-2758
Fax: (613) 545-6610
E-Mail: spd@post.queensu.ca

DALHOUSIE UNIVERSITY

Programs offered in mineral processing, hydrometallurgy, chemical and extractive metallurgy, refractories, fracture toughness, erosion, wear and tribology, semiconductors, crystal growth and metal/matrix composites.

Degrees offered: Master of Engineering, Master of Applied Science, Doctor of Philosophy.

Numbers of Professors: 10

Present number of full-time Graduate Students: 16

For further information write to:

Professor G. J. Kipouros, Head
Mining and Metallurgical Engineering
Technical University of Nova Scotia
P.O. Box 1000

Halifax, NS
 B3J 2X4
 Telephone: (902) 420-7674
 Fax: (902) 425-1037
 E-Mail: minmet@tuns.ca kipourgj@tuns.ca

UNIVERSITY OF TORONTO

Programs offered in chemical and extractive metallurgy, process metallurgy, ferrous metallurgy (steel-making and thermomechanical processing of steel), corrosion science, welding and bonding technology, materials science and engineering of metals, biomaterials, electronic materials, nuclear materials, high strength polymeric materials and ceramics.

Degrees offered: Master of Engineering, Master of Applied Science, Doctor of Philosophy.

Number of Professors: 16

Present number of full-time Graduate Students: 67

For further information write to:

Marisa Freire (Graduate Studies Secretary)
 Department of Metallurgy and Materials Science
 Room 140, Wallberg Building
 University of Toronto
 184 College Street
 Toronto, Ontario
 M5S 3E4
 Telephone: (416) 978-7308
 Fax: (416) 978-4155
 E-Mail: mari.freire@utoronto.ca

UNIVERSITY OF WATERLOO

Programs offered in materials, solid mechanics, automation and control, fluid mechanics, environmental fluid mechanics, materials engineering, and thermal engineering.

Degrees offered: Master of Applied Science and Doctor of Philosophy (Mechanical Engineering).

Number of Professors: 28

Number of full-time Graduate Students: 72

For further information write to:

Associate Chair Graduate Studies
 Department of Mechanical Engineering
 University of Waterloo
 University Ave.
 Waterloo, Ontario
 Canada, N2L 3G1
 Telephone: (519) 885-1211 ext. 3341
 Fax: (519) 888-6197
 E-Mail:

UNIVERSITY OF WESTERN ONTARIO

Programs offered in materials engineering.

Degrees offered: Bachelor of Science, Master of Science, Doctor of Philosophy.

Number of professors: 8

Present number of full-time Graduate Students: 17

For further information write to:

Katherine Lesko
 Administrative Assistant
 Materials Engineering
 University of Western Ontario
 London, Ontario
 N6A 5B9
 Telephone: (519) 661-3757
 Fax: (519) 661-3808
 E-Mail: klesko@charon.engga.uwo.ca

THE UNIVERSITY OF WINDSOR

Programs offered in the physical, mechanical and chemical aspects of materials. Current research topics include: phase diagrams and transformations, alloy development, electronic ceramics, electron microscopy, deformation and processing (metals and polymers), corrosion and metal hydrides.

Degrees offered: Master of Applied Science, Doctor of Philosophy.

Number of Professors: 5

Number of full-time Graduate Students: 11

For further information write to:

Dr A. T. Alpas
 Mechanical and Materials Engineering
 University of Windsor
 Windsor, Ontario
 N9B 3P4
 Telephone: (519) 253-4232, Extension 2602; 2616
 Fax: (519) 973-7000
 E-Mail: aalpas@uwindsor.ca; mats@uwindsor.ca

ADDITIONAL SCHOOLS

Original research in metallurgy and materials science is also carried out in the institutions listed below. Although the spectrum of research activities is usually not as great as at the institutions listed above, there is often a chance to carry out research in a more intimate relationship with the supervisor and to produce work of equally high calibre. For these reasons, applicants for graduate studies are encouraged to write to one or more of the addresses listed.

CARLETON UNIVERSITY

Research areas: Computer aided materials engineering, computer integrated manufacturing, joining research.

Degrees offered: Master of Science in Mechanical Engineering (materials and manufacturing), Doctor of Philosophy in Mechanical Engineering (materials and manufacturing). Master of Aerospace Engineering, Doctor of Philosophy in Aerospace Engineering.

Number of professors: 5

Number of full-time Graduate Students: 10

For further information write to:

Professor Ed Plett
Associate Chair, Graduate Studies
Department of Mechanical and Aerospace Engineering
Carleton University
1125 Colonel By Drive
Ottawa, Canada
K1S 5B6
Telephone: (613) 788-5693
Fax: (613) 788-5715
E-Mail: Ed_Plett@Carleton.ca

Number of Professors: 10

Number of full-time Graduate Students: 30

For further information write to:

Professor D. R. Morris
Department of Chemical Engineering
University of New Brunswick
Fredericton, N. B.
E3B 5A3
Telephone: (506) 453-4565
Fax: (506) 453-5139
E-Mail:

CONCORDIA UNIVERSITY

Research areas: Metals forming, hot working of alloys and composites, physical metallurgy, materials science.

Programs offered: Design and Manufacturing

Degrees offered: Bachelor of Mechanical Engineering

Number of professors: 4

Number of full-time Graduate Students: 20

For further information write to:

Professor R. A. Neemeh
Mechanical Engineering
Concordia University
1455 Maisonneuve W
Montreal, Quebec
H3G 1M8
Telephone: (514) 848-3131
Fax: (514) 848-3175
E-Mail: mecheng@vax2.Concordia.ca

UNIVERSITY OF OTTAWA

Research areas: Welding metallurgy, composite materials.

Programs offered: Master of Applied Science, Master of Engineering, Doctor of Philosophy.

Number of Professors: 3

Number of full-time Graduate Students: 5

For further information write to:

Dr B. Dhillon, Chairperson
Mechanical Engineering
770 King Edward Ave.
P.O. Box 450, Stn. A
University of Ottawa
Ottawa, Ontario
K1N 6N5
Telephone: (613) 562-5795
Fax: (613) 562-5177
E-Mail:

LAURENTIAN UNIVERSITY

Research areas: Mineral resources engineering

Degrees offered: Master of Engineering, Master of Applied Science

Number of Professors: 14

Number of full-time Graduate Students: 8

For further information write to:

Dr P. H. Lindon
Director
School of Engineering
Laurentian University
Ramsey Lake Road
Sudbury, Ontario
P3E 2C6
Phone: (705) 674-1151 ext. 2244
Fax: (705) 675 4862
E-mail: plindon@Nickel.Laurentian.ca

UNIVERSITY OF REGINA

Research areas: Physical metallurgy and modeling, welding metallurgy, corrosion studies, composite materials.

Degrees offered: Master of Applied Science, Master of Engineering and Doctor of Philosophy (Industrial Systems Engineering)

Number of Professors: 7

Number of full-time Graduate Students: 15

For further information write to:

Professor S. D. Bhole
Industrial Systems Engineering
University of Regina
Regina, Saskatchewan
Canada S4S 0A2
Tel: (306) 585-4630
Fax: (306) 585-4855
E-Mail bhole@robinhood.engg.uregina.ca

UNIVERSITY OF NEW BRUNSWICK DEPARTMENT OF CHEMICAL ENGINEERING

Research areas: Non-ferrous pyrometallurgy, electrochemical sensors, energy analysis of industrial processes.

Degrees offered: Bachelor of Science, Master of Science, Doctor of Philosophy.

UNIVERSITY OF MANITOBA

Research areas: Mechanical properties, joining of aerospace materials, acoustic emission, solidification, phase transformations, wear characteristics.

Degrees Offered: Master of Science, Doctor of Philosophy.

Number of Professors: 5

Number of full-time Graduate Students: 15

For further information write to:

Head

Department of Mechanical and Industrial Engineering

University of Manitoba

Winnipeg, Manitoba

Canada R3T 5V6

Phone: (204) 474-9803

Fax: (204) 275-7507

E-mail: gfergus@bldgeng.lan1.umanitoba.ca

UNIVERSITY OF SASKATCHEWAN

Research areas: Physical and mechanical metallurgy, corrosion studies, amorphous materials.

Degrees offered: (Mechanical Engineering) Master of Applied Science, Master of Engineering and Doctor of Philosophy. Post Graduate Diploma.

Number of Professors: 20

Number of full-time Graduate Students: 65

For further information write to:

Professor S. Yannacopoulos

Department of Mechanical Engineering

University of Saskatchewan

57 Campus Drive

Saskatoon, Saskatchewan

S7N 5A9

Telephone: (306) 966-5449

Fax: (306) 966-5427

E-Mail: spiro@engr.usask.ca