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SCHOLARSHIPS AND AWARDS

Undergraduate students of the Faculty of Applied Science and Engineering who achieve scholastic excellence are eligible for scholarships, prizes, bursaries, medals, and honours. They have been established through the University, its Alumni Associations, governments, commercial organizations, and other benefactors to encourage and honour outstanding achievement.

The awards are listed alphabetically in four sections: OSOTF Admission Scholarships/Awards and non-OSOTF Admission Scholarships (starting on page 186), for students entering their First Year in the Faculty, and OSOTF In-Course Scholarships/Awards and non-OSOTF In-Course Scholarships and Bursaries (starting on page 191).

THE NATIONAL SCHOLARSHIP PROGRAM

The University of Toronto National Scholarships will be awarded to students who demonstrate superior academic performance, original and creative thought, and exceptional achievement in a broad context. The National Scholars will be those who not only excel in academic pursuits but also have an enthusiasm for intellectual exploration and an involvement in the life of their school and community. Each secondary school is invited to nominate one student, on the basis of these criteria, to receive a University of Toronto National Book Award. These students, and others who identify themselves as meeting the National Scholarship criteria, are invited to enter the National Scholarship Competition.

Information and applications are sent to secondary schools in the spring; the application deadline is the end of the school year preceding intended university admission.

Approximately fifteen National Scholarships will be awarded in a given year. The National Scholarships will cover tuition and incidental fees for four years of undergraduate study, residence support in first year, and will include an additional, renewable monetary award. The annual value of each student’s scholarship will be determined on the basis of individual financial circumstances.

UNIVERSITY OF TORONTO SCHOLARS PROGRAM

This program recognizes outstanding University of Toronto students in any first degree course, both on admission and during their course of study.

Approximately 120 outstanding admission applicants are selected as University of Toronto Scholars. These awards have a value of $3,000 and may be held in any program of study at the University, in conjunction with admission awards that the students may receive from their faculty/college.

Awards under the University of Toronto Scholars Program are not renewable. Outstanding students, however, will be eligible for consideration for University of Toronto (In-course) Scholarships at the end of the first, second and third year of their programs. There are about 100 scholarships at each level. These in-course awards are worth $1,500 and are tenable with other in-course scholarships.

THE UNIVERSITY’S COMMITMENT

The University of Toronto is committed to the principle that students who are offered admission will have the financial support necessary to allow them to enter and complete their programs. The commitment is based on the assumption that Canadian citizens/permanent residents will first access the government aid for which they are eligible. Financial need is assessed based on the Ontario Student Assistance Program (OSAP), because OSAP provides a uniform method of assessing student need. For students who are assessed by OSAP (or by another Canadian provincial government financial aid program) as requiring maximum assistance, and whose assessed need is not fully covered by government aid, the University will ensure that the full need is met.

UNIVERSITY OF TORONTO ADVANCE PLANNING FOR STUDENTS (UTAPS)

Students who are concerned about the financial cost of attending university can obtain early information about the amount of funding they can expect to receive from government programs and other forms of financial assistance by completing a UTAPS application. Returning students, with calculated unmet need above the government funding maximum, will be considered for UTAPS grant assistance in the fall. The University’s financial aid website has additional information and UTAPS application, at http://www.adm.utoronto.ca.

GOVERNMENT FINANCIAL AID

The Ontario Student Assistance Program (OSAP) provides need based financial assistance to Ontario residents who are Canadian citizens or permanent residents. Students in course loads of sixty per cent or greater are considered for both federal and provincial interest-free student loans to assist with educational and living expenses. The Ontario Student Opportunity Grant provides partial forgiveness of loans on an annual basis for students who have incurred large debt loads. OSAP applications are available in May through the OSAP website (www.osap.gov.on.ca).

Students from other Canadian provinces/territories should apply through their home province.

It is recommended that returning students apply for government financial aid by May 31 and new students by June 30.

UNIVERSITY OF TORONTO WORK-STUDY PROGRAM

This program is funded by the University and the Ministry of Training, Colleges and Universities and provides on-campus part-time employment to students with financial need. Information and applications are available from Admissions and Awards.
BURSARY FOR STUDENTS WITH DISABILITIES
Non-repayable assistance is available from the federal and provincial governments for government aid recipients who have special educational expenses as a result of a disability. Information and applications are available from Admissions and Awards or Accessibility Services.

PART-TIME STUDIES
The Federal Government has established a loan and grant program for part-time students enrolled in course loads of less than sixty per cent. Unlike OSAP loans, the interest on part-time Canada Student Loans becomes repayable thirty days after the loan is received. Federal grants of up to $1200 are also available for high-need, part-time students.

The Ontario Special Bursary Plan provides assistance to part-time students in receipt of social assistance. The bursary assists with direct educational expenses such as tuition, books, transportation and babysitting.

Further information and application forms may be obtained from Admissions and Awards.

INTERNATIONAL STUDENTS
International students entering Canada or currently in Canada on student authorization are not eligible for government assistance and must ensure that they have sufficient funds to cover all probable expenses. Such students cannot depend on gaining part-time employment in Canada to help their studies.

ADMISSION SCHOLARSHIPS
These begin on page 186.

IN-COURSE SCHOLARSHIPS AND BURSARIES
Scholarships, prizes, bursaries and loans available to students in attendance in the Faculty are listed in this chapter, starting on page 186. Where it is necessary to apply for an award, details of how to apply are included. In all other cases, the award is made on the recommendation of the Faculty Council and no application is necessary.

DEAN’S HONOUR LIST
In 1983 the Faculty Council instituted the Dean’s Honours List to give special recognition to every student who demonstrates academic excellence in an individual session. The names of students who achieved Honours standing in a given session will appear on the Dean’s Honour List of that session. The list is posted prominently for a limited time in a place within the Faculty designated for this purpose. The lists for successive sessions are compiled in a permanent record maintained in the Office of the Registrar.

GENERAL TERMS AND CONDITIONS OF AWARDS
Scholarships, prizes and medals granted in recognition of academic proficiency are awarded at the end of the Winter Session, and candidates are ranked on the basis of their achievement in the Winter Session and the Fall Session previously completed.

To be eligible for any scholarship or award granted solely on academic standing, a student must have completed not less than the normal full load (approximately 5.0 credits units) within the two sessions upon which the award is based. A student whose program in these two sessions contains repeated courses will only be eligible if the aggregate of new courses is equal to or greater than 5.0 credits.

Scholarships, medals and prizes based solely upon academic standing will be awarded only to students who have achieved honours in the work upon which the award is granted, unless otherwise specified in the terms of award. If the award is based on a single course or on part of the work of the session, the candidate must obtain unconditional pass standing in the work of the session, but not necessarily honours standing, unless the terms of the award so specify.

A candidate will not be permitted to hold more than one award in a session unless the statute of each of the awards concerned or the calendar specifies otherwise.

Tuition and residence fees are a first charge against awards. After the deduction of the applicable charges, any balance remaining will be paid to the recipient in November. Payment will be made only if the candidate is in regular attendance in the Faculty and, if the calendar so specifies, in the course in which the award is established or granted.

Medals, after they have been suitably engraved, will be given without delay to the winners or forwarded to them by registered mail.

Awards granted to members of graduating classes, other than awards for graduate study and research, will be paid in one installment as soon as possible after the granting of the awards.

The Governing Council may, on the recommendation of the Faculty, permit a candidate to whom an award has been granted to postpone attendance in the Faculty for one year. Further postponement may be permitted on application.

Note: The value of an endowed scholarship or prize is dependent on the actual income of the fund; it is possible that the value of certain scholarships and prizes at the time of payment may be greater or less than the amount stated in the calendar.

In those cases where the amount of the award is not payable from income earned on an endowed fund, payment will be dependent on the receipt of the amount of the annual award from the donor.
ONTARIO STUDENT OPPORTUNITY TRUST FUND (OSOTF) AWARDS
In the case of all OSOTF awards, eligible candidates must be Ontario residents and they must demonstrate financial need. For the purpose of OSOTF awards, an Ontario resident is either a Canadian citizen or a permanent resident of Canada who has an Ontario mailing address at the time the award is made. Financial need is most easily demonstrated with receipt of OSAP for the current year. Other examples of financial need will be considered. For admission OSOTF Awards it is crucial that applicants for admission complete a UTAPS application in order to demonstrate financial need.

OSOTF ADMISSION SCHOLARSHIPS
Kenneth Au-Yeung Memorial Scholarship
This scholarship was established in 1999 by Ben and Catherine Au-Yeung in memory of their son. The scholarship is awarded to a student entering the Computer Engineering program on the basis of financial need, academic achievement in the pre-requisite courses as well as a demonstrated commitment to Community Service.

The Robert L. Bullen Admission Scholarship
This scholarship, derived from the income of a capital fund, was established in 1982 in memory of the late Robert L. Bullen, B.A.Sc., Metallurgical Engineering, 1929, by his wife, Mrs. Robert L. Bullen.

The scholarship is awarded annually one or more students entering the First Year in the Faculty of Applied Science and Engineering on the basis of financial need. Academic standing in pre-requisite courses is also considered.

The Sydney C. Cooper Scholarships
Through the generosity of the family educational and charitable foundation of Sydney C. Cooper (B.A.Sc., Civil Engineering, 1945) two awards are established in the Department of Civil Engineering. One award will be granted to a student entering First Year and one to a student entering Fourth Year. The First Year award is made on the basis of financial need. Academic achievement, involvement in athletics and participation in extra-curricular activities will also be considered.

I.E.E. Toronto Centre Scholarship
In 1997, the Toronto Centre of the Institution of Electrical Engineers established this scholarship in memory of the late Al Fabian. The award is granted to a student entering the First Year of the Electrical Engineering or Computer Engineering programs (alternated annually between the two programs) who has demonstrated financial need. Academic merit will also be considered.

The Lau Family Scholarships
These scholarships were established in 1997 through the generosity of Mr. Lee-Ka Lau and family. Two scholarships are granted: one to a student entering the first year in Computer Engineering and one to a student entering the first year in Electrical Engineering. The awards are based on financial need. Academic achievement will also be considered. Scholarships may be renewed for Second Year in the designated programs on the basis of continued financial need and achieving honours standing.

Motorola Foundation Scholarships
Established in 1996 through the generosity of the Motorola Foundation, two awards are available for students entering the First Year of either Electrical or Computer Engineering on the basis of financial need. Academic standing will also be considered.

Vera Catherine Noakes Scholarship
Established in 2001, this scholarship is to be awarded to a student entering the first year of any undergraduate engineering program on the basis of financial need. Preference will be given, where possible, to a student from the Windsor, Ontario area.

Robert John Richardson Memorial Scholarship
Established in 2002 from the estate of the late Robert John Richardson, BASC 5T0, this scholarship is awarded to a student, from North Bay, entering the First Year of any undergraduate engineering program on the basis of financial need and academic achievement. The scholarship is renewable for three years on the basis of continued financial need and provided satisfactory achievement (min. 60%) is obtained at the end of each year. After the scholar has completed his/her four year program, a new student will receive the scholarship for the same term.

Donald Ross Leadership Award
Through a generous gift of Mr. Donald Ross in 1997 this award was established in the Department of Chemical Engineering and Applied Chemistry. The award is granted to a student entering the first year of the program on the basis of financial need Academic achievement and demonstrated leadership skills in high school through participation in team sports and/or student affairs and community involvement will also be considered.

The award may be renewed for Second Year providing at least 75% standing is maintained and that the awardee is still deserving.

Leon Rubin Scholarships
Established in 1997 through the generosity of William F. McLean, a number of scholarships are available for students entering the First Year of Chemical Engineering on the basis of financial need. Academic standing will also be considered.

Awards may be renewed for Second Year on the basis of continued financial need and academic achievement at the end of Year I.
Robert Sangster Memorial Admission Award
Gift of the family and friends of the late Robert Sangster, B.A.Sc. Electrical Engineering 1949, this scholarship, of the approximate value of $800, is awarded annually to a student entering the First Year of any program in the Faculty of Applied Science and Engineering, on the basis of financial need and satisfactory academic standing in secondary school.

Edward and Helen Swanston Scholarships
The scholarship was established in 1997, made possible by a generous donation from Edward Y. Swanston. The scholarship is awarded to a student entering the First Year in the Department of Chemical Engineering and Applied Chemistry on the basis of financial need. Academic standing and extra-curricular involvement in high school through participation in team sports, with the emphasis on sportsmanship, and/or community service will also be considered. The scholarship is renewable for the Second Year on the basis of continued financial need and achieving an average of at least 75%.

Christopher Skrok Memorial Scholarships
(See listing later in this Chapter)

The Jean Wallace Memorial Scholarship
This award was established in 1999 by William L. Wallace, B.A.Sc., (5T6 Metallurgical Engineering) in memory of his mother, the late Jean Wallace.

The award will be granted to one (or two) students entering First Year of Materials Engineering on the basis of financial need. Academic achievement and demonstrated leadership qualities through both school and community involvement will also be considered. If no suitable candidate is found at the admissions level, the award may be granted to a student completing Year 1 of the Materials Engineering program based on the same criteria. Department recommendation.

NON-OOSTF ADMISSION SCHOLARSHIPS

The Bi-cultural Admission Scholarship
The Professional Engineers Wives’ Association has established an admission scholarship of the value of the income from the fund to a student entering the First Year of any program in the Faculty of Applied Science and Engineering. In addition to achieving outstanding results on the subjects prescribed for admission to the Faculty, candidates must have excelled in at least one course in either of Canada’s official languages in the final Ontario high school year. The first award was made in June, 1983.

Chemical Engineering and Applied Chemistry Alumni Entrance Scholarships
Established in 1995, these scholarships, provided through the generosity of alumni and friends of the Department of Chemical Engineering and Applied Chemistry, are open to students entering the First Year of the program on the basis of academic standing in the subjects required for admission. The scholarships are renewable in second year provided honours standing is obtained.

Civil Engineering Admission Scholarships
Established in 1995, these scholarships, provided through the generosity of alumni and friends of the Department of Civil Engineering, are awarded to students entering the First Year of the Civil Engineering program on the basis of academic excellence. Some awards will be renewable provided the student achieves honours standing at the end of First Year and proceeds to Second Year of the program.

Class of 5T1 Bursary
This bursary, established in 2001, is provided by the generosity of the Class of 5T1. The bursary is to be awarded to a student entering into the Faculty of Applied Science and Engineering on the basis of financial need and academic merit.

Engineering.com Leonardo da Vinci Admission Scholarships
These scholarships were established through the generous donation of Engineering.com Incorporated. Up to 15 entrance scholarships to the top competitors in the Leonardo da Vinci Competition who are offered admission to the first year of any undergraduate engineering program. In addition, the fund will be used to provide a cash prize to the top ten competitors, top competitors from Western, Central and Eastern Canada, top junior competitors and the school teams with the highest score.

John Pearson Duncan Admission Award (Brant County)
This admission award valued at $100 is provided in memory of the late John Pearson Duncan, B.A.Sc., University of Toronto, 1926. It is granted to a student from a secondary school in Brant County entering the First Year of any program in the Faculty, who has achieved not less than 80% on the subjects required for admission.

The financial need of the applicant is considered and the selection is based on a combination of academic excellence and financial need with the provision that financial need not be an absolute requirement for any award.

The first award was made in 1982.
Engineering Alumni Association Admission Scholarships

Five scholarships, each with a possible value of $1,500, are provided annually by the University of Toronto Engineering Alumni Association for students entering the First Year of any course in the Faculty of Applied Science and Engineering. The awards are made on the basis of high standing in Ontario Secondary School.

There are two types of Scholarships.

(a) The William Ian MacKenzie Turner 2T5 Scholarship, named after a “Schoolman of Distinction”, with a full value of $1,500.

(b) Four Centennial Scholarships with a value of $1,000 each when entering First Year with an additional $250 if the student achieves Honours standing in First Year, and a further $250 if he or she maintains Honours standing in Second Year. These amounts do not affect other awards for First and Second Year work.

Faculty of Applied Science and Engineering Admission Scholarships

These awards, derived from the annual income of a capital donation, are granted to students entering First Year in any Engineering program on the basis of outstanding academic achievement in the pre-requisite courses.

Robert M. Friedland Scholarships

These scholarships were established in 1996 through a generous donation from Robert M. Friedland, Chairman of Indochina Goldfields Ltd., and Bakyrchik Gold PLC. The awards will be granted on the basis of academic standing and preference is given to international students entering the First Year of the Lassonde Mineral Engineering Program in the Division of Mineral Engineering. If there are no suitable candidates in the Lassonde Mineral Engineering Program, the award can be granted to international students entering the First Year of any undergraduate program in the Faculty. If there are no suitable candidates in the Faculty then the award can be granted to students entering the First Year in any Faculty at the University of Toronto. The admission awards are renewable in the Second Year provided honours standing is maintained at the end of first year and that the candidate proceeds to the Second Year of the Lassonde Mineral Engineering Program.

James A. Gow Admission Scholarship

This scholarship was established in 1982 through donations provided by friends and colleagues to honour James A. Gow, University of Toronto, 4T6, on his retirement, and to recognize his many contributions to the Faculty.

Jim Gow served the Faculty for thirty-five years, the last twenty as Secretary and Assistant Dean. Over those years he was friend and counsellor to staff and to countless students who remember him as one dedicated to their well-being.

The scholarship is awarded annually to a student who achieves high standing in Ontario Secondary School. The award is tenable in any program.

The Grabill Admission Scholarship

The Grabill Admission Scholarship is the gift of Mr. Dayton L. Grabill, a graduate of this Faculty in 1924. The Scholarship has a value of approximately $500 and is awarded to the candidate with high standing in Ontario Secondary School.

Greater Toronto Sewer and Watermain Contractors Association Admission Scholarship

The Metropolitan Toronto Sewer and Watermain Contractors Association, an organization of independent contractors, provides this admission scholarship of $6,200. It is awarded to a student entering the First Year of the Civil Engineering program who has achieved outstanding marks (not less than an average of 80%) on the Ontario Secondary School subjects prescribed for admission.

H.J. Greeniaus ESROP Fellowship

This award was established in 2002 by the H.J. Greeniaus family and is awarded to a student who has been accepted to the ESROP program, which has been created to provide undergraduate students in Engineering Science with the opportunity to undertake research over the summer with a faculty member. Additional preference will be given to students who plan to focus their Engineering Science studies in Aerospace Engineering.

George A. Guess Admission Scholarships

(see listing later in this chapter)

Frank Howard Guest Admission Bursary

(see listing later in this chapter)

Walter Scott Guest Memorial Scholarships

Established in 1995 by the estate of Frank Howard Guest as a memorial to his father, the late Walter Scott Guest, these scholarships are awarded to students entering the First Year of any undergraduate program in the Faculty on the basis of academic standing.

Reginald and Galer Hagarty Scholarship

This award was established by Lt.-Colonel E.W. Hagarty and Charlotte Ellen Hagarty in memory of their sons, Reginald and Galer and is to be granted to a student entering first year of any undergraduate program on the basis of academic achievement. Recipient must be a graduate of Harbord Collegiate.
Horace Hally Admission Scholarship  
This scholarship was established in 1997 from the estate of the late Horace Angus Hally, a friend of the University of Toronto. The award will be granted to a student entering the First Year of the Mechanical Engineering program on the basis of satisfactory academic standing in the secondary school courses required for admission.

Jane Elizabeth Ham Memorial Scholarship  
This award was established in 1993 by Professor and Mrs. James Ham in memory of their daughter. The scholarship will be awarded to a student on entrance to the Faculty, in any program, on the basis of outstanding academic achievement consistently obtained in each of the subjects required and offered for admission. Range of personal interests and financial need is relevant. Half of the total amount of the award is made on entrance and the other half upon registration in the Second Year, on the condition that the student obtains Honours in the Examinations of First Year. In addition, there is an OSOTF portion.

William Harland Leadership Award  
This award, established in 2000 by Dr. Carlton Smith in memory of the donor’s late wife Marguerite Smith and in honour of the donor’s father-in-law, William Harland, is to be awarded to a student entering the first year of the Civil Engineering Program. To be awarded on the basis of academic credentials, and leadership potential as demonstrated by involvement in student council activity, participation in athletics and community involvement.

The Murray Calder Hendry Scholarship  
This award was established by the estate of Mrs. Grace Appel Hendry as a memorial to her husband, a graduate of this Faculty in 1905. It has a value of the income from a capital sum of $10,000 and the recipient must: (a) have attained an average of at least 75% on the Ontario Secondary School subjects required for admission. (b) be entering the First Year of any course in the Faculty of Applied Science and Engineering.  
The first award was made in the Session 1962-63.

Roy Jarvis Henry Admission Scholarships  
The estate of the late Roy Jarvis Henry awards up to four awards to students who have achieved high standing on the Ontario Secondary School qualifications required for admission, one open to students entering Lassonde Mineral Engineering and the others are open to students entering any program in the Faculty. If there is no suitable candidate in Lassonde Mineral Engineering, all awards are tenable in any program in the Faculty.

John Hirschorn Memorial Scholarship  
This award was established in 2002 by Ron and Linda Hirschorn to honour the memory of the late John Hirschorn who graduated in 1941 from the Mechanical Engineering program at the University of Toronto. This scholarship is granted to a student entering first year of Mechanical Engineering on the basis of academic merit. The scholarship is renewable for three years provided the recipient maintains minimum of 65% average at the end of each year.

I.O.D.E. (Municipal Chapter of Toronto) Bursary in Pure and Applied Science  
Gift of the Municipal Chapter of Toronto, Independent Order of Daughters of the Empire, (I.O.D.E.), this award of the value of $400 is granted to a graduate from a secondary school in Metropolitan Toronto or immediate suburbs who intends to specialize in science or engineering at the University of Toronto.  
Canadian citizenship is required, unless the applicant’s family has not been resident in Canada long enough to be eligible for citizenship. Financial need is considered.  
Selection of the recipient will be made by the I.O.D.E. Committee of Award.

The Harvey W. Kriss Admission Scholarship in Industrial Engineering  
This scholarship was established in 1989 by family, friends and colleagues in memory of Harvey W. Kriss, B.A.Sc. (Engineering and Business 1959), S.M. (MIT, 1961). The award, derived from the annual income, will be granted to a student entering the First Year of the Industrial Engineering program. In addition to academic excellence, qualities of character and leadership as demonstrated in school and community activities will be considered.

Lassonde Scholarships  
(see listing later is in this chapter)

James Turner MacBain Scholarship  
(see listing later in this chapter)

Salim Majdalany Scholarship  
(see listing later in this chapter)

The Hal Major Memorial Admission Award  
This award is provided by the generosity of Mr. George Bird, P.Eng., (class of 4T9, Civil Engineering) in memory of his uncle, Mr. Hal Major, who died in 1986 at the age of 94.  
The Award is granted to a student entering the First Year in the Department of Civil Engineering on the basis of financial need and demonstrated qualities of character and leadership.
J. Edgar McAllister Foundation Admission Awards
Provided by the bequest of the late J. Edgar McAllister, B.A.Sc., numerous awards, varying in amounts, are available to students entering the First Year of programs in Mechanical, Chemical, Electrical, Computer, Lassonde Mineral Engineering, and Materials Engineering, who have achieved high standing in the secondary school courses prescribed for admission and who are in need of financial assistance.

The John Wolfe McColl Memorial Awards
The income of this fund is divided equally among the Faculty of Applied Science and Engineering, the Faculty of Arts and Science and the Faculty of Medicine.

The funds available to the Faculty of Applied Science and Engineering will provide admission scholarships for outstanding students entering the First Year of any program.

Lachlan Dales McKellar Admission Scholarships
Provided by a bequest of the late Leona D. McKellar, two scholarships of $500 each are offered to students who have achieved high standing on the Ontario Secondary School qualifications required for admission to the Faculty.

Metallurgy & Materials Science Alumni Admission Scholarships
Established in 1995 by friends and alumni of the Department of Materials Science and Engineering, this scholarship is awarded to students entering the First Year of the Materials Engineering program on the basis of outstanding academic performance in the subjects required for admission and involvement in school and community activities. The award is renewable in the second year of the program provided a min. of 75% is obtained at the end of Year 1.

George R. Mickle Admission Bursaries
Provided by a bequest of the late George R. Mickle, five bursaries of the value of $1,000 each are available to students entering the First Year in the Faculty of Applied Science and Engineering. The awards are made on the basis of the applicants’ academic standing in Ontario Secondary School and financial need.

Professional Engineers Ontario Foundation for Education Entrance Scholarships
The Ontario Professional Engineers Foundation for Education provides two admission scholarships of $1,500 each and are designated, where possible, to a male and female student. They are awarded to the candidates who are well-rounded students and exhibit characteristics of leadership.

Norman Ramm Scholarship
This scholarship, provided by a bequest of the late Norman Ramm, is awarded upon admission to a student from a Canadian province, other than Ontario, or a territory on the basis of academic standing.

Edward S. Rogers Sr. Admission Scholarships
These awards were made possible through a landmark donation from Ted Rogers Jr. and the Rogers family. Edward S. Rogers Sr. was enrolled in the Department of Electrical Engineering in the University of Toronto from 1919-1921. He left the program before graduating to pursue his radio experimentation. In 1925, he invented the world’s first alternating current (AC) radio tube, which enabled radios to be powered by ordinary household current. He also started the world’s first all electric radio station (CFRB — Canada’s First Rogers Batteryless), which began broadcasting on February 10, 1927. In 1931, Rogers was granted the first television licence in Canada. Edward S. Rogers Sr. was inducted into the Canadian Broadcast Hall of Fame in 1982. During his short but productive life, Edward S. Rogers Sr. displayed the qualities we wish to instill in all students of the Faculty.

The scholarships are awarded to students entering, full-time, the Edward S. Rogers Sr. Department of Electrical and Computer Engineering on the basis of academic achievement and extra-curricular activities. Some awards may be renewable.

Edward A. Rolph Scholarships
Established in 1994 from the estate of Edward A. Rolph and Kathryn S. Rolph, these scholarships will be granted to one or more students entering the First Year of any program in the Faculty on the basis of academic excellence. Application is not required.

Leslie and Lois Shaw Admission Scholarship
This award was created in 2002 by the friends and family of Leslie and Lois Shaw and is to be awarded to a student entering first year of either the Department of Chemical Engineering and Applied Chemistry or the Department of Mechanical and Industrial Engineering. In addition to academic standing, preference is given to candidates who possess leadership capabilities as demonstrated through involvement in Student Council, athletics, or community service. Scholarship may be awarded by reversion to the next qualifying candidate if not renewed in any given year.

The Shaw Admission Scholarship
Established in 2002 through a generous donation by William and Barbra Shaw, this Scholarship is awarded to a student entering first year of Engineering Science who demonstrates high academic achievement. Preference will be given to a student who pos-
sesses leadership skills and design capability as demonstrated in extra-curricular design projects and activities. Selection will be made on the recommendation of the Chair of the Division of Engineering Science. The scholarship is renewable for three years provided the recipient maintains a minimum 75% overall average and continues in Engineering Science.

Soroc Technology Admission Scholarship
This award, valued at $8,000, is made possible through the generous annual donation of Soroc Technology Inc. and is awarded to a student entering first year of either Electrical or Computer Engineering. This award is made on the basis of demonstrated financial need, academic standing, extra-curricular involvement/community service and, athletic ability. The money is to cover the cost of tuition, books/supplies for a student coming from an inner city high school.

The F.C.C.P. - John Hin Chung Tsang Memorial Admission Scholarship
This award, valued at $750, was established by Mrs. Pauline Tsang, in co-operation with the Federation of Chinese Canadian Professionals Education Foundation in memory of John Hin Chung Tsang, B.A.Sc., P.Eng. who graduated in 1971 from Electrical Engineering at the University of Toronto. The award is granted to a student entering the First Year of the Electrical Engineering program, who has achieved the highest average on the pre-requisite subjects required for admission to the Faculty.

Toronto & Area Road Builders Association Scholarship
This award, valued at $1,000, was established in 1987 through the generosity of the Toronto & Area Road Builders Association. The award is granted to a student entering the first year of the Civil Engineering program on the basis of good academic standing and qualities of character and leadership.

Wallberg Admission Scholarship
A number of admission scholarships, each of a value of $1,000 are awarded annually from the income from the Wallberg bequest on the recommendation of the Council of the Faculty to the six candidates with the highest average percentage in subjects prescribed for admission to the Faculty.

To qualify for the scholarship a candidate must achieve an average of at least 75% in the subjects prescribed for admission and must register in the Faculty of Applied Science and Engineering.

The scholarship will not be awarded to a student who has spent more than five years in an Ontario Secondary School or its equivalent unless evidence can be provided satisfactory to Council that this extended attendance was for reasons beyond the student’s control.

W. J. T. Wright Admission Scholarship
The W.J.T. Wright Admission Scholarship was established in honour of Professor W.J.T. Wright, a highly regarded emeritus member of the Faculty. The capital donation is provided by the 67th University of Toronto Battery of the Canadian Army. The scholarship is awarded annually to a student entering the First Year of the Civil Engineering program who has achieved outstanding marks in the Ontario High School subjects prescribed for admission. The first award was made in 1982.

OSOTF IN-COURSE SCHOLARSHIPS

T. Christie Arnold Scholarship
This award was established in 1997 through the generosity of T. Christie Arnold. The award is granted to a student in the Industrial or Mechanical Engineering program who is entering the BASc/MBA joint program on the basis of financial need. The recipient should also be recognized for engineering management, good academic achievement in the program and particular ability and creativity in their course work. The person should be a well-rounded student involved in extra-curricular activities, i.e., athletic involvement with varsity sports.

Anthony A. Brait Memorial Scholarship
This scholarship was established in the Division of Engineering Science in 1997 by Margaret Brait, in memory of her late husband, Anthony A. Brait. The award will be granted to a student entering the Second Year of the Engineering Science Program on the basis of financial need. Academic standing will also be considered.

Paul Cadario Scholarship
This scholarship was established in 1996 in the Department of Civil Engineering through the generosity of Mr. Paul Cadario. The award is granted to a student entering the Fourth Year of the program on the basis of financial need. In addition, academic achievement in the program and particular ability and creativity in the field of Transportation Engineering, specifically the third year Transportation Engineering courses will also be considered. The recipient is expected to continue his/her studies in Transportation Engineering in the fourth year.

Canadian Imperial Bank of Commerce BASC/MBA Scholarships
These scholarships, established in 2001, are to be awarded to students entering the Jeffrey Skoll BASc/MBA program. Preference will be given to students who have displayed high academic merit in their first three years of Engineering studies and who have a high level of leadership potential. Additional preference will be given to students who demonstrate financial need.
**Class of 3T7 Scholarships**

These scholarships, established in 1997 through the generosity of the Class of 3T7, are granted to students in any program in the Faculty on the basis of financial need.

**Class of 4T3 Scholarship**

Established in 1997 through the generosity of the Class of 4T3, this scholarship, derived from the annual income of a capital donation, is awarded to a student in the Faculty on the basis of financial need. Academic standing will also be considered.

**The Sidney C. Cooper Scholarships**

Through the generosity of Sidney C. Cooper (B.A. Sc., Civil Engineering, 1945) two awards are established in the Department of Civil Engineering. One award will be granted to a student entering the First Year and one award will be granted to a student entering the Fourth Year.

The Fourth Year award will be made on the recommendation of the Chair on the basis of financial need. Academic achievement in the work of the third year and a demonstrated interest (through summer employment) in construction engineering will also be considered.

**Class of 9T7 Award**

This award, established through the generosity of the Class of 9T7 in their graduating year, is given to a student has completed the Second Year, full-time, and is proceeding to the Third Year, full-time, of any program on the basis of financial need. Academic standing and extra-curricular/community involvement will also be considered.

**George B. Craig Scholarship**

This award, provided through the generosity of Professor Steve J. Thorpe, was established in 1997 for George B. Craig, B.A.Sc., M.A.Sc., Ph.D., F.A.S.M., P.Eng., Professor Emeritus and former Chair of the Department of Materials Science and Engineering. The award, derived from the annual income, is granted to a student in the Department of Materials Science and Engineering who has demonstrated financial need. Academic achievement will also be considered.

**C. William Daniel Leadership Awards**

Established in 1998 through the generosity of Mr. C. William Daniel, this award is granted to three students entering either third or fourth year of any undergraduate engineering program. Decisions will be made on the basis of academic standing and leadership qualities as demonstrated by student council activity, participation in athletics and community involvement. In addition, two of the recipients must demonstrate financial need.

**Duncan R. Derry Scholarships**

The scholarship fund was established in 1997 through the generosity of Mrs. Duncan Derry, Mr. Donald M. Ross and friends and family of Mr. Duncan R. Derry. Awards will be made to a student entering the Second Year of the Lassonde Mineral Engineering Program on the basis of financial need. Academic standing, qualities of character and leadership and extra-curricular activities will also be considered. The scholarship is renewable for both Third and Fourth Years provided academic standing is maintained and continued financial need is demonstrated.

**Dharma Master Chuk Mor Scholarship**

Established by T.Y. Lung, this scholarship is awarded to a student entering the Third Year of any program on the basis of financial need and academic achievement.

**R.A. Downing Scholarship in Civil Engineering**

This award was established in 2003 through a generous donation by Lois Downing in memory of the late Robert Downing. The award will be made to an undergraduate student in Civil Engineering on the basis of financial need and academic merit.

**ECE Alumni Scholarship**

This scholarship was established in 1997 through the generous donations of alumni of the Department of Electrical and Computer Engineering. The award will be made to a student in either Electrical or Computer Engineering on the basis of financial need. Academic achievement will also be considered.

**Engineering Society Award**

Established in 1997 and provided by the generosity of the undergraduate students in the Faculty of Applied Science and Engineering, these awards, based on the annual income, will be made on the basis of financial need. Academic qualifications, merit will also be considered. Awards will be made in consultation with the Engineering Society Executive.

**Ford Electronics Scholarship**

This scholarship, derived from the annual income of a capital donation, was established through the generosity of Ford Electronics Manufacturing Corporation in 1997. It will be granted to a student in the Electrical Engineering program on the basis of financial need. Academic standing will also be considered.

**General Motors Environmental Engineering Awards**

This award was established in 1997 through a generous donation from the General Motors of Canada Limited. Annual income derived from the capital provides up to seven awards to students entering Second, Third and Fourth Year in Environmental Engineering.
Engineering on the basis of financial need. Academic achievement will also be considered.

General Motors Women in Electrical and Mechanical Engineering Awards
This award was established in 1997 through a generous donation from the General Motors of Canada Limited. Annual income derived from the capital provides up to fifteen awards to female students in First, Second and Third Year of Electrical and Mechanical Engineering on the basis of financial need. Academic achievement will also be considered.

Herbert Gladish Memorial Scholarship
This scholarship was established in 1997 by Sailrail Automated Systems Inc. in memory of the late Herbert Gladish. The award is granted to a student entering Third Year of the Engineering Science program on the basis of financial need. Academic achievement in the program will also be considered. Preference will be given to a student who has demonstrated innovation and excellence in the Second Year design course.

J. Frank Guenther Scholarship
The J. Frank Guenther Scholarship was established in 1997 in the Division of Engineering Science through the generosity of BVA Systems Limited. The award will be made to either a student entering Second Year who has shown progress and increased effort from the first to second semester or to a student entering Third Year who has demonstrated progress and increased effort from the First to Second Year. The candidate must demonstrate financial need to receive the award. Selection will be made on the recommendation of the Chair of Engineering Science.

Anthony A. Haasz Scholarship
This scholarship was established in 1997 by Anthony A. Haasz, B.A.Sc., M.A.Sc., Ph.D., P.Eng., Professor and Director of the Institute for Aerospace Studies. The scholarship, derived from the annual income, is granted to a student entering the Third Year in the Aerospace Option in the Engineering Science program on the basis of financial need. Academic achievement will also be considered.

Halsall Scholarships in Building Engineering
Provided in 1997 through the generosity of Halsall Associates Ltd., these awards are tenable in the Department of Civil Engineering or in the Infrastructure Option of Engineering Science. One award is made to a student completing Second Year and one award is made to a student completing Third Year on the basis of financial need. The recipients should also exhibit a high level of interest and academic achievement in Civil Engineering applied to buildings, as well as significant contribution to community and/or student activities. The relevant course content would include structures, materials and building science.

Lisa Anne Hamann Memorial Award
This award was established by family and friends in memory of Lisa Ann Hamann (nee Anzil) P.Eng., a graduate of the Class of 1986 Mechanical Engineering, who passed away in 1995, in her 51st year.

Lisa was a successful nuclear engineer with Ontario Hydro, whose career path evolved from nuclear design, through project management and lastly as an account executive in international sales. The consummate professional, committed to excellence in all her ventures, she was gifted with intelligence, talent and strength.

Her personality and qualities never failed to inspire and encourage individuals with whom she came into contact with. She excelled in a business environment that is often difficult and challenging for women professionals and earned the respect of those she worked with around the world, from Korea, China, and Japan to Kenya, Ukraine, Bulgaria and the Czech Republic. She chaired the Toronto chapter of the Canadian Nuclear Society for two years, committed to the promotion of nuclear energy and its benefits to society and the electrical industry.

Lisa promoted an athletic lifestyle while at Ontario Hydro, organising the annual fun runs, multi-team participation at the YMCA Corporate Challenge and outside of work was an active member of the Ontario Association of Triathletes. She competed for many years and twice successfully completed the Ironman Canada triathlon, a gruelling endurance race consisting of a 2k swim, 180k bike and full marathon run.

This endowment fund, created through generous contributions from family, friends and colleagues has a capital value of approximately $30,000. The annual income will generate an award to be presented to a female student in Third or Fourth year of the Mechanical Engineering program. The recipient will be chosen on the basis of good academic standing, demonstrated leadership ability, commitment to a healthy and athletic lifestyle, involvement in community activities and financial need.

It is hoped that through this award, Lisa’s values, courage and accomplishments can become a beacon and opportunity for other women to pursue a career in the field of engineering. Applicants must submit a resume to the Chair of the Mechanical & Industrial Engineering Department demonstrating their qualifications under the above criteria by June 1st of each year.

Chester B. Hamilton Scholarship
Members of the family of the late Chester B. Hamilton, a graduate of the Faculty in 1906, established an annual scholarship in

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his memory. The first award was made in 1958-59.

In 1997, Diana L. MacFeeters, Elizabeth D. Hamilton and David C. Hamilton augmented the fund through a generous gift. The award is granted to a Third Year student in the Mechanical Engineering program on the basis of financial need and who has shown academic ability at the annual examinations of the Third Year.

**Philip H. Jones Scholarship**
Established in 1997, this scholarship is granted to a student entering the Fourth Year of the Environmental Engineering Option in the Department of Civil Engineering on the basis of financial need. Academic achievement in the program and particular ability and creativity in the field of Environmental Engineering will also be considered. The recipient is expected to continue his/her studies in Environmental Engineering in the Fourth Year of the program.

**Andrew Alexander Kinghorn Scholarships**
Four scholarships are available annually on the basis of financial need. One is awarded to the student on the basis of financial need and academic standing in the First Year of Engineering Science; one to the student on the basis of financial need and academic standing in the First Year of all programs except Engineering Science and one each to the students on the basis of financial need and academic standing in the Second and Third Years respectively among the candidates of all programs. Should a candidate hold an award of equal or greater value, the award may be made to the next ranking candidate.

**Dietmar Koslowski Memorial Bursary in Electrical Engineering**
This award was established in 1987 in memory of the late Dietmar Koslowski, P.Eng, (6T7) by his parents and family. The bursary, derived from the annual interest of the capital fund, will be granted, on the recommendation of the Chair, to a student completing the Third Year in the Department of Electrical and Computer Engineering. In addition to financial need, good academic standing will also be considered. The first award was made in the 1987-88 session.

**Frankie Kwok Memorial Scholarship**
This scholarship, established in 1997, is provided through the generosity of McKinsey & Company, family, friends and colleagues of the late Dr. Frankie Kwok. The award is granted to a student entering the Third Year of the Mechanical Engineering program on the basis of financial need. Academic achievement and demonstrated leadership skills through participation in team sports and/or student affairs and community involvement will also be considered.

**Ronald Paul Manning Scholarships**
Provided through the generosity of Ronald P. Manning (B.A.Sc., 5T9, M. Eng.) in 1997 one or more awards will be granted to a student entering the Fourth Year of the Electrical Engineering program on the basis of financial need. Academic achievement in the program and demonstrated particular ability and creativity in the field of communications or computers will be considered. Recipients must be Canadian Citizens working towards a degree in Electrical Engineering and are expected to continue their studies in the Fourth Year of the program. Special consideration will be given to those students who have a history of good grades but have experienced some adversity during the Third Year due to illness, bereavement, etc.

**Eric Miglin Scholarship**
This scholarship was established in 1997 on the occasion of his 25th reunion, by Eric J. Miglin, a graduate of Industrial Engineering and President of the Engineering Society in 1972. This award is granted to a student who has completed the Third Year in any program in the Faculty on the basis of financial need. Academic standing and active involvement in student and/or University government will also be considered.

**Marshall Macklin Monaghan Scholarship**
This award was established in 1997 through a generous donation from Marshall Macklin Monaghan Limited. The award, derived from the annual income, is granted to a student in the Department of Civil Engineering on the basis of financial need and academic ability.

**James A. Peers Scholarship in Industrial Engineering**
The James A. Peers Scholarship was established in 1997 by Jim Peers, who graduated from the Department of Industrial Engineering in 1973. This award, derived from the annual income, is granted on the recommendation of the Chair to a student proceeding to the Second Year in Industrial Engineering on the basis of financial need. Academic standing, qualities of character, leadership and commitment to the profession will also be considered. Not tenable with other awards.

**Ryn Pudden Memorial Award**
This award was established in 1999 in memory of Ryn Pudden through the generosity of her family. The award is granted to a female student in Engineering Science who demonstrates financial need. In addition, preference will be given to a student who is entering the Third Year of the Aerospace Option and is involved in extra-curricular activities (e.g. Music, student council, athletics).
The Peter Sands Award in Engineering Science
This award was established by family and friends in memory of the late Peter Sands, B.A.Sc. (1962), M.A.Sc. (1966). The award will be made on the recommendation of the Chair to a student completing the Second Year of Engineering Science who has pre-registered for the Computer Option on the basis of financial need. In addition, good academic standing (not necessarily Honours), qualities of character, leadership and commitment to the profession will also be considered.

Kenneth A. Selby Scholarship in Construction Engineering in the Department of Civil Engineering
This scholarship was established in 1997 by Kenneth A. Selby, B.A.Sc., M.B.A., Ph.D.(ILL), P.Eng. The award will be granted to a student entering the Fourth Year of the Civil Engineering Department on the basis of financial need. Academic achievement in the program and particular ability and creativity in the field of construction engineering, specifically Second and Third year construction engineering-related courses will also be considered.

Douglas Scott Shaw Memorial Scholarship
This award was established by Andrea Boucher-Shaw in loving memory of her husband, the late Douglas Scott Shaw. The award is granted to a student who has completed first, second or third year of Industrial Engineering and is made on the basis of financial need and a shown marked improvement in grades from the previous year.

Shell Canada Limited Engineering Scholarships Program
Established in 1997 through the generosity of Shell Canada Limited, these scholarships are granted to two students entering Third Year and two students entering Fourth Year in each of the following three departments: Mineral Engineering, Chemical Engineering and Applied Chemistry and Mechanical & Industrial Engineering. The awards are granted on the basis on financial need. Academic performance will also be considered. The first awards were granted in the 1998-99 Session.

William Bernard Silverston Scholarship
William Bernard Silverston, having received a degree in Mechanical Engineering in Poland, went on to lead a distinguished international career in engineering, management, and business. To recognize his tremendous innovation in design and management, his son, Robert Silverston, established this scholarship in the Faculty in 1997.

The award, derived from the annual income, will be granted to a student entering the Third Year of the Mechanical Engineering program on the basis of financial need. The recipient should also have demonstrated the ability to produce innovative and original designs which are based on sound engineering and applied science principles. Candidates should convey a spirit and love for the discipline.

Christopher Skrok Memorial Scholarships
These scholarships were established in 2003 through the generosity of Stanislaw Skrok, in honour of her husband Christopher Skrok (Civil 6T0). The awards will be granted to three students entering First Year of Civil Engineering and three students entering Fourth Year of Civil Engineering on the basis of financial need and academic standing.

Gordon R. Slemon Scholarship

The award is granted to a student entering the Fourth Year of the Electrical Engineering program on the basis of financial need. Academic achievement in the Third Year of the program and an aptitude in design will also be considered. The award will be made on the recommendation of the Chair.

Kenneth Ward Smith Scholarships
Provided through the generosity of Carlton G. Smith two awards are granted, on the recommendation of the Chair of the Division, to students completing the Second Year of the Engineering Science program and who are proceeding to the Third Year in the Aerospace Option. Recipients will be selected on the basis of financial need, academic standing and qualities of character and leadership.

Robert M. Smith Scholarships
These scholarships, made possible by a generous donation, were established in 1996. The awards are granted on the basis of financial need to a student entering the Third Year of the Lassonde Mineral Engineering program. Academic standing will also be considered. The scholarship is renewable in the Fourth Year on the basis of continued financial need and academic standing. Should the candidate not qualify for the renewal, the award can be granted by reversion to the next qualifying candidate in the Fourth Year of the program.

SNC-Lavalin Scholarship
This scholarship was established in 1997 through the generosity of SNC-Lavalin Group Inc. and is awarded to a student entering Second Year of either the Lassonde Mineral or Materials Engineering program on the basis of financial need. Academic standing will also be considered.
Peter K. Strangway Scholarship
This award was established in 1997 through the generosity of Dr. Peter K. Strangway. The scholarship is granted to a student entering the Third or Fourth Year in Materials Engineering on the basis of financial need. Academic credentials will also be considered.

Sullivan Memorial Scholarship
The Sullivan Memorial Scholarship commemorates May and Philip Sullivan, of Sydney, Australia. Being denied the benefits of an advanced education, they fostered their three children’s ambitions. All became University faculty, one in Australia, one in New Zealand, and one in Canada. The award is derived from the annual income and is awarded to a student entering the Second Year of the Engineering Science program on the basis of financial need. Academic standing will also be considered. The selection is made by the Chair of the Division. The first award was granted in the 1998-99 Session.

The Trenwith and Galipeau Aerospace Science Award
This award was established in 1997 through a donation from Mr. John Galipeau. The income derived from the capital provides a scholarship to a student in Third or Fourth Year of the Aerospace Option in Engineering Science based on financial need. Academic merit is also considered. If given at the Third Year level, the award may be renewed for the Fourth Year provided the criteria is still met.

William Ian MacKenzie Turner Scholarship in Industrial Engineering
This award was established in recognition of the professional achievements of William Ian MacKenzie Turner (B.A.Sc., Electrical Engineering, 1925), and of his dedication to the interests of the undergraduates and graduates of Faculty of Applied Science and Engineering.

The scholarship, derived from the annual income, is awarded to the student on the basis of financial need who, having obtained Honours standing, ranks in first place on the results of the annual examinations in the Third Year of the Industrial Engineering program. Should the candidate hold an award of greater value, the award may be made to the next ranking candidate.

The first award, under these terms, was made in the 1998-99 Session.

Julie Wilkinson Memorial Scholarship
This scholarship was established by family and friends of the late Julie Wilkinson. Julie was the Office Manager of the Engineering Society for 11 years. In addition to her job in the Faculty, she worked part-time for the Automobile Journalists Association of Canada (AJAC) where she eventually became Treasurer. On top of all this responsibility, Julie decided to go back to school part-time and was working towards an Industrial Engineering degree. Julie was a warm and caring person who always had a smile for everyone.

In honour of her memory, the scholarship will be made to a student registered in any year of the Industrial Engineering program on the basis of financial need, extra-curricular activities, demonstrated involvement in the Engineering Society, and academic standing. Recommendations will be made by the Departmental Chair, in consultation with the Engineering Society president.

Yolles-Bergmann Scholarship
This scholarship was established in 1997 in the Department of Civil Engineering through the generosity of Yolles Partnership Inc. in recognition of the significant accomplishments of the Yolles Group, and in particular, the contribution made to structural engineering by Mr. Morden Yolles and Mr. Roland Bergmann. The award is made to a student proceeding to the Fourth Year of the program who achieves a high academic standing and who has successfully completed a structural design project in their Third Year, that demonstrates a creative interest and talent in linking structure and architecture. The evaluation of potential candidates will be based on academic standing, a 250 word application to Yolles Partnership Inc., performance on Third Year project, an interview with principals of Yolles and financial need.

The Department nomination will be made in consultation with Mr. Morden Yolles and Mr. Andrew Bergmann, President of Yolles Group Inc.

Henry G. Acres Medal
The Henry G. Acres Medal is awarded annually to the Fourth Year student in Civil, Mechanical, Electrical, or Computer Engineering who obtains the highest aggregate percentage at the annual examinations of the Third and Fourth Years, provided always that the student obtains Honours standing in the examinations of the Fourth Year. In addition to the medal the student will receive an honorarium in the amount of $500. Receipt of the award does
not preclude a student from being granted such other awards as may, in the opinion of the Council, be appropriate.

The Henry G. Acres Medal was established in 1950 by Mrs. Henry G. Acres in memory of her late husband, Henry G. Acres, M.E., D.Sc., a graduate of the School of Practical Science in the class of 1903. From 1981 onward, continuation of the award has been possible through the generosity of Acres International Limited, who also provide an honorarium of $500 to the recipient of the medal.

Throughout his professional life Dr. Acres was associated with major power developments in Canada and abroad. As chief hydraulic engineer for the Hydro-Electric Power Commission of Ontario from 1911 to 1923, he was responsible for the design and construction of nearly twenty power plants, including the Queenston-Chippewa development. In 1924 he formed H.G. Acres and Company Ltd., now known as Acres International Limited, and until his death in 1945, he continued to widen and extend his interests. He became chief engineer of the Grand River Conservation Commission and was responsible for the design and construction of the Shand dam and related work. Later, he was consulting engineer for the extensive power developments at Shipshaw on the Saguenay River, which were vital to the production of aluminum for war purposes. Many of the provinces of Canada sought his services and he advised with respect to work in Newfoundland, South America and India.

Harvey Aggett Memorial Scholarship
This scholarship was donated by the late Mr. J.T. Aggett of Toronto, as a perpetual memorial to his son, the late Lieutenant Harvey Aggett, who enlisted in March, 1915, during his second year in this Faculty, and was killed in action at Passchendaele on November 6, 1917.

This annual scholarship is to be awarded to a student of the Second Year in this Faculty who, obtaining honours and being ranked one of the first three at the annual examinations, has been adjudged highest of the three in general student activities and service in the University during First Year. The annual value of the scholarship is the income from the fund.

When regulations do not permit the winner to hold this scholarship the students to be considered for the award shall be the first three in the year exclusive of any student who holds a scholarship of higher value.

Aloha Innovation Fund
This fund was established in 2003 through a generous donation by an anonymous donor. The fund is for undergraduate students in the Department of Electrical & Computer Engineering and includes prizes for undergraduate projects that show innovation and excellence in team work and execution, funding for well planned and innovative project proposals or awards to students who are judged to have demonstrated a high degree of innovation in any of their academic activities.

American Concrete Institute, Ontario Chapter Scholarship
Established in 1992 through the generosity of the Ontario Chapter of the American Concrete Institute, this scholarship is awarded, on the recommendation of the Chair, to a student graduating from the Department of Civil Engineering with the most meritorious final year thesis related to the use of concrete.

APWA Ontario Chapter Bruce Brunton Award
Established in 2000 by the Ontario Chapter of the American Public Works Association (APWA), this scholarship is awarded to a student in any year in Civil Engineering on the basis of financial need, and academic achievement sufficient enough to proceed to the next year of the program. The value of the award is $500.

Ardagh Scholarship
The Ardagh Scholarship has been provided by Professor E.G.R. Ardagh, B.A.Sc., F.R.S.C., formerly professor of Applied Chemistry, in memory of his parents. The annual value is the income from $7,500.

It is awarded to the student who attains the highest standing with Honours at the annual examination in the Second Year of the Chemical Engineering program. The first award was made on the results of the annual examination in 1946.

ASM International (Ontario Chapter) Scholarship
The Ontario Chapter provides annual scholarships in the Department of Materials Science and Engineering based on academic excellence in 1st, 2nd or 3rd year of the program. Recipients are selected on the recommendation of the Department Chair based on academic achievement. In the case of more than one qualified candidate, the qualities of character and leadership, extracurricular activities both within the faculty and in civic organizations and financial need of the applicant may be considered along with the candidates academic achievements. The scholarship holder will also receive a free membership in the society.

Wellington Thomas Ashbridge Memorial Bursaries
Established by the members of the family of Wellington Thomas Ashbridge, C.E., a graduate of the School of Practical Science in 1888, this fund provides bursary assistance to students in good standing in any year of the Civil Engineering program who are in need of financial assistance. In any session any residue of income remaining after the awards to Civil Engineering students may be used to provide bursaries for students in other programs in the Faculty.

Application is made on the Undergraduate Grant Application Form.
The Babb Bursary Fund
Bursaries from this fund are available to students in any year of the Aerospace Option in Engineering Science. Application is made on the Undergraduate Grant Application Form.

Baptie Scholarship
The Baptie Scholarship is derived from a bequest under the will of the late Mrs. Margaret W. Baptie of Ottawa. The Governing Council has directed that a scholarship of one half the annual income shall be awarded annually to an engineering student on the record of his or her First Year. The Board of Governors also authorizes a remission of fees in the case of the holder of the scholarship, up to $75.

The conditions of the award are that the scholarship be awarded to the student who, in the annual examinations of First Year, enrolled in any of the programs of Civil Engineering, Mechanical Engineering, Chemical Engineering, Electrical Engineering, Computer Engineering, or Materials Engineering, obtains the highest aggregate percentage of marks in those subjects which are common to the First Year curricula of those courses. The first award was made in the 1925-26 Session.

Ben Bernholtz Memorial Prize in Operational Research
This prize, of the value of the annual income, is awarded to the student completing the Third Year of the Industrial Engineering program who achieves the highest aggregate mark in the two courses Operational Research I and II.

The prize was established in 1980 by colleagues and friends of the late Dr. Ben Bernholtz, twice Chair of the Department of Industrial Engineering and a founder of the Canadian Operational Research Society.

Should the candidate be qualified for another award of higher value, the award may be reverted to the student with the next highest aggregate mark in the specified courses.

The T.H. Bickle Prize
The T.H. Bickle prize is the gift of Mr. and Mrs. Bickle in memory of their son, T.H. Bickle, an undergraduate of Trinity College and a member of the Senior Intercollegiate Swimming Team at the time of death in 1937.

The income from the endowment fund will be used to purchase a suitable prize to be awarded annually to a member of the Senior Intercollegiate Swimming Team of this University in any year, Faculty or school. The Awarding Committee consists of the Dean of the Faculty of Arts, the Director of Athletics, and the Honorary Coach of Swimming. In awarding the prize the committee considers the character, scholarship and general interests of the members of the team.

The Edith Grace Buchan Summer Research Fellowship
A summer research fellowship is provided by a bequest of the late Edith Grace Buchan. The fellowship is open to students who have completed the First, Second or Third Year in any program in the Faculty.

Interested students should apply by application to the chair of their department early in the Winter Session. The selection will be made on the basis of the applicant’s academic background and interests.

The Burge-Connell Bursary
Provided through the generosity of the Women’s Association of the Mining Industry of Canada, this bursary of $1,000 is open to students in Second Year in Geology or Lassonde Mineral Engineering.

Consideration will be given to academic standing and financial need. The recipient must be a Canadian citizen or permanent resident and show an interest in pursuing the study and application of geological science both on earth and on other planets.

Application information can be obtained from the Office of the Registrar in the Faculty of Applied Science & Engineering.

Carman Burton Bursary
This bursary was established in 1986 in memory of the late Carman Burton (2T0, Electrical Engineering) by his wife, Mrs. C.E. Burton. The annual income from a capital donation will provide bursaries to students registered in the Faculty in any undergraduate program on the basis of good academic standing and financial need.

Application should be made on the Undergraduate Grant Application Form.

Norman E. Byrne Award
This award is made annually by the University Masonic Lodge in honour of one of their members, a Past Grand Master of the Grand Lodge of Canada in Ontario, Mr. Norman E. Byrne, a graduate of Mechanical Engineering, Toronto.

The award will be made on the recommendation of the Chair on the basis of financial need, academic excellence, and qualities of character as demonstrated by University and Community activities to a student who has completed the First, Second or Third Year of the Mechanical Engineering program. The value of the award is $500.

#2 Canadian Army University Course Award
Established in 2002, this award is granted to a student entering third year of any undergraduate program on the basis of high academic achievement and participation in other activities, i.e. sports, drama, school activities. The student must demonstrate financial need. Not tenable with other major awards.
Canadian Institute of Steel Construction Scholarship
This award, valued at $2000, was established in 2003 by the Canadian Institute of Steel Construction and is given to a student who has completed Third Year of Civil Engineering on the basis of overall academic performance in Steel & Timber Design.

Canadian Society of Industrial Engineering Scholarship
The Toronto Chapter, Canadian Society for Industrial Engineering, offers a scholarship of $300 to a student entering the Fourth Year of the Industrial Engineering program. The student must have consistently maintained high, though not necessarily honours standing, during the previous three years, and must be an active member of the University of Toronto Student Chapter of C.S.I.E. The selection will be made on the recommendation of the Chair of the Department of Mechanical & Industrial Engineering.

Canadian Society for Chemical Engineering Medal
The Canadian Society for Chemical Engineering provides a medal and a cash award of $100 to the student registered in the Chemical Engineering program who, having achieved Honours, receives the highest standing in the written and laboratory work of the Third Year. The first award was made on the results of the final examinations of 1947. From 1985 onwards, the cash portion of the prize is provided through the generosity of the Local Toronto Chapter of the Canadian Society for Chemical Engineering.

Giorgio Cefis Memorial Scholarship
This scholarship of $1,000 is awarded annually to the student who ranks in first place in the examinations in the First Year of the Civil Engineering program . It was established by relatives of Giorgio Cefis, a prominent building contractor in Italy who died in 1980 shortly after coming to Canada to continue his profession.

Should the candidate already hold a scholarship of equal or greater value, the award may be made to the next-ranking candidate. To enjoy the award, the recipient must continue in the Second Year in Civil Engineering.

Centennial Thesis Awards
The Centennial Thesis Awards were established in 1972-73 in honour of the Centennial of the founding of the Faculty in 1873.

To recognize excellence in Fourth Year thesis work, one award is made annually in each of the Faculty’s nine degree programs, based on departmental recommendations. The award is in the form of a $50 prize and an accompanying certificate.

Original funding was provided through the Office of the Dean and is being continued through the generosity of the University of Toronto Engineering Alumni Association.

The Wallace G. Chalmers Engineering Design Scholarships
In 1986, Mrs. Clarice Chalmers established the Wallace Chalmers Engineering Design Awards to encourage and provide recognition for students in the Mechanical Engineering creative design courses. In 1997, Mrs. Chalmers converted the Wallace Chalmers Engineering Design Awards to the Wallace G. Chalmers Engineering Design Scholarships in order that the Scholarship may continue in perpetuity. These scholarships are to encourage and provide recognition for students in the Mechanical Engineering creative design courses. Three design awards are available each year but will only be awarded when the leading candidates have clearly displayed outstanding design ability and originality.

Wallace Chalmers graduated in 1950 from the Department of Mechanical Engineering at the University of Toronto. Throughout his career, Mr. Chalmers demonstrated a keen interest in design and perceived the need to place greater emphasis on the design aspect of engineering education.

One award is available for each of Second, Third and Fourth Year.

The Second Year award is for a student enrolled in MIE241H1S Engineering Design. This award is targeted at the design achievement attained in the project component of this course.

The Third Year award is for a student enrolled in MIE301H1F Kinematics and Dynamics of Machines. The award is directed to the individual who has clearly demonstrated design originality and creativity in the course work of this course identified above.

The Fourth Year award is available for a student who has demonstrated exceptional design capability in the course MIE496Y1 Thesis/Design Project.

The five leading candidates for each award will be invited to present their designs to a panel of designers who in turn will nominate the winner. The design panel will be appointed by the Chair of the Department of Mechanical & Industrial Engineering.

All winners will be invited to a formal presentation of these awards by Mrs. Clarice Chalmers in late April or early May of the year in which the award is made.

Chemical Institute of Canada Book Prize (Toronto Section)
This award consists of a $100 book prize plus a certificate and a one year membership in the relevant constituent society of the CIC.

The award is presented to the student in Third Year of the Chemical Engineering program who has shown the most improvement in a chemistry and/or chemistry related program. The award does not necessarily go to the student who achieves the second highest standing in a particular program.
5T6 Civils Scholarship
The 5T6 Civils, consisting of the graduating members of the 1956 Civil Engineering Class of the University of Toronto, have established an annual scholarship of $2000 open to students who have completed the Second Year of the Civil Engineering program and are registered in the Third Year of the program.

Application is not required. The award will be based on a recommendation by a selection committee composed of the Department of Civil Engineering Undergraduate Student Counsellor, and two other members of the teaching staff, who are acquainted with the students in third year of the Civil Engineering program. The selection of the recipient is based on qualities of scholarship, leadership and character. In addition to high academic marks, the recipient will also be involved in extra curricular activities to demonstrate the qualities of leadership and character.

The award is presented at the annual reunion of the Class of 5T6 Civils and is not tenable with any other scholarship of greater value.

The first award was made in 1964.

Ross L. Clark Memorial Scholarship
The friends of Ross L. Clark, 3T7 Civil graduate, have set up a scholarship to honour his substantial contributions to municipal and environmental engineering, practiced so well by him as Commissioner of Works for Metropolitan Toronto for many years.

The value of the scholarship is the annual income. It will be awarded to a student entering the Fourth Year of the Civil Engineering program, who has demonstrated a significant interest in Environmental Engineering and has a high academic standing. Recommendation for the scholarship is made by the Chair of the Department of Civil Engineering. The Scholarship is not tenable with other awards of $1,000 or higher value. Application is not required.

Class of 4T7 Bursaries
These scholarships, established in 1997, are provided by the generosity of the Class of 4T7. The awards, derived from the annual income, are awarded to a student in the Faculty on the basis of financial need. Applications should be made on the Undergraduate Grant Application Form.

The Constant Temperature Control Limited Scholarships
Through the generosity of Constant Temperature Control Limited, a capital fund has been established in the Faculty of Applied Science and Engineering. This donation provides for two scholarships of an annual amount derived from the income of the fund. The scholarships will be awarded to students in any program on the basis of high academic standing in the examinations of the Third Year. The first awards were made in the 1982-83 Session.

Consulting Engineers of Ontario (CEO) Scholarship
Established in 1991, Consulting Engineers of Ontario provides an award valued at $750 to a student who has completed Third Year enrolled in any program on the basis of academic standing (upper quartile of class) and extracurricular activities on campus or in a civic organization. Selection will be based on the recommendation of the Chair of the Department.

Crocker Foundation Bursaries
The income from a capital fund established from the estate of the late Beatrice Crocker Glazier in memory of her brother, James William Crocker, provides bursaries for students in the Faculty of Medicine and the Faculty of Applied Science and Engineering who are in need and are worthy of financial assistance.

Application should be made on the Undergraduate Grant Application Form.

CSME Medal
Established in 1986 through the generosity of the Canadian Society for Mechanical Engineering, Toronto Section, the CSME Medal is granted to a graduating student in the Mechanical Engineering program who has achieved the highest cumulative total of weighted session averages for the eight sessions of the program. This award is not tenable with the Professional Engineers Ontario Medal for Academic Achievement or the W.S. Wilson medal.

The Alfredo DaCunha Memorial Foundation
The Alfredo DaCunha Memorial Awards are offered in memory of Alfredo DaCunha (Chemical Engineering 9T1) who was killed on route to the Canadian Engineering Design Competition in Sherbrooke.

An award of $1,000 will be presented to the highest placed student group in any category of the Ontario Engineering Design Competition.

Also, another award of $1,000 will be presented to the student group which wins in a category of the Canadian Engineering Design Competition.

These awards are available only to students enrolled in the Department of Chemical Engineering and Applied Chemistry at the University of Toronto.

Gavin Dass Memorial Scholarship
Established in the Faculty of Arts and Science, on the recommendation of the Department of Physiology, this award is granted to a student completing Fourth Year of the Specialist or Major Program in Biology and Physics, the Specialist Program in Theoretical Physiology, or the Biomedical Engineering option in Engineering Science. The student should have shown a strong interest in theo-
retical physiology, either through classroom projects or summer research, and should additionally have shown an interest in the world around him/her. The student should have some significant involvement in student or community organizations.

A letter outlining the applicant’s extra-curricular activities and motivation for studying theoretical biology and should be submitted to the Department of Physiology by April 1.

Roger E. Deane Memorial Scholarship
This scholarship, which has a value of up to $250, was established in memory of Professor Roger E. Deane by his colleagues within the University and the geology profession, in commemoration of his distinguished contributions to geology.

It is to be awarded annually to the students, full or part-time, showing the best performance at the department geological field camp.

Delcan Scholarship in Civil Engineering
Valued at $750, this scholarship is provided by De Leuw Cather Canada Ltd. in memory of the late Jack Spiegelman (B.A.Sc., Civil Engineering, 1951). Mr. Spiegelman was former Director and Chief Transit Engineer of the Company.

The award is made on recommendation of the Chair of the Department to a student entering the Fourth Year of the Civil Engineering program who has achieved high standing, with Honours, on the examinations of the Third Year, and who has demonstrated qualities of character and leadership indicative of becoming a worthy member of the profession. The scholarship is not tenable with other awards of greater value. Application is not required.

Digital Equipment of Canada Limited Award of Merit
Digital Equipment of Canada Ltd. provides an annual donation of a medal and $100 cash prize to be awarded to the most outstanding student graduating either in Computer Science in the Faculty of Arts and Science, Scarborough College or in the Computer Option of Engineering Science. The award is made by the University of Toronto, Admissions and Awards Office on the recommendation of the Undergraduate Secretary, Department of Computer Science.

The first award was made in the 1981-82 Session.

G.W. Ross Dowkes Memorial Prize
Donated by W.J. Dowkes, a graduate of the class of 1962, in memory of his father, the late G.W. Ross Dowkes, this prize is awarded to the student in the Chemical Engineering program who, in the opinion of the Chair, has demonstrated the most marked improvement in academic standing. Preference is given to a final-year student.

Canadian Society for Mechanical Engineering
Earl H. Dudgeon Bursary
This bursary was established in 1997 through the generosity of T. Christie Arnold. The bursary is awarded to a student in any year of the Mechanical Engineering program on the basis of financial need.

Application should be made on the Undergraduate Grant Application Form.

Stuart Ellam Grant
The income from a capital fund established from the estate of the late Ida Maud Lillian Ellam in memory of her late son Stuart Ellam. The grant is given to an undergraduate student in the Faculty on the basis of financial need. Application should be made on the Undergraduate Grant Application Form.

The John M. Empey Scholarships
This Fund was established under a bequest of $10,000 in the will of the late John Morgan Empey, B.A.Sc., 1903. Three scholarships of equal value are provided from the income from the fund. One of these is awarded in each of the First, Second, and Third Years on the annual examinations, to a student who, obtaining Honours, achieves the highest average percentage of marks in the written and laboratory subjects of the Year. The scholarships are open to any students registered in the Faculty.

In case the winner does not attend the Faculty during the session following the award, the right to the scholarship will be forfeited and the award will be made to another eligible student. The scholarships were awarded for the first time in 1944.

Engineering Alumni Centennial Bursaries
Through the generosity of the Engineering Alumni Association, several bursaries have been established in the Faculty of Applied Science and Engineering. These are awarded on the basis of academic achievement and financial need, with preference being given to students in the Third and Fourth Years. Application should be made on the Undergraduate Grant Application Form.

5T3 Engineering Award
The Class of 5T3 established the 5T3 Engineering Award in 2003. This award, valued at $3,000, is given to a Third Year, full-time or part-time, student in any undergraduate program on the basis of high academic achievement, financial need, and qualities of character and leadership as demonstrated through involvement in extra-curricular activities both within the University and the community at large. Recipients must be Canadian Citizens or Landed Immigrants.
**SCHOLARSHIPS AND AWARDS**

**Engineering Class of 5T6 Award of Merit**
The award of the value of the annual income will be granted to a student who completes First Year, of any undergraduate engineering program. In addition to having excelled in their academic studies, the recipient must demonstrate qualities of character and leadership through involvement in extracurricular activities either within the University of Toronto or the community at large. Nominations will be made by the Engineering Society, in consultation with members of the Class of 5T6 wherever possible. The recipient will also receive a certificate.

**Etkin Medal for Excellence**
This Etkin medal was established by University Professor Bernard Etkin, formerly Chair of Engineering Science (1967-1972) and Dean of the Faculty (1973-1979). It will be first awarded in 2003. It is an award for academic excellence that commemorates a career-long interest in the theory and application of solid and fluid mechanics, subjects he taught for many years to students in Engineering Science, and which were the basis of most of his research and professional work. The award is presented to a third year student in Engineering Science. In each year, the Chair of Engineering Science chooses one or more courses from among the relevant offerings in solid and fluid mechanics in the second and third year curriculum and nominates the recipient of the medal for outstanding performance in those courses.

**J.A. Findlay Scholarships**
These scholarships were established through a legacy bequeathed by the late Janet Findlay to the Department of Mechanical & Industrial Engineering.

Two scholarships are available, each the value of half the fund’s income. One is for a Third Year student in the Mechanical Engineering program, the other for a Fourth Year student, but only if the student continues in the Mechanical Engineering program.

The selection will be made on recommendation of the Chair of the Department, from among the four students with the highest average percentage of marks at the annual examinations in the Second and Third Years respectively. In making the award the student’s general character, fitness for the profession and financial circumstances will be given consideration.

If a student who wins one of these scholarships changes program or does not attend this University during the next following session, the award shall be made to another eligible student.

**Hugh Gall Award**
The Hugh Gall Award was established in 1946 by the graduate class of 1910 “to commemorate a deceased classmate who was a splendid type of student, a loyal friend, and nationally outstanding in athletic achievement during his undergraduate career.”

Upon expiration of the original gift in 1951 the award was supported by Mrs. Hugh Gall until her death in 1970; under the terms of her will a sum of $5,000 was provided to support the award in perpetuity, the annual value of the award being the income from the bequest.

The award is made to a student who, having completed First Year with a general average of at least 66% without conditions, has entered the Second Year, and needs financial assistance to continue. It is desirable, but not necessary, that the recipient not already have been given any other scholastic award or scholarship applicable to the Second Year, and shows indications of a firm intention and ability to follow successfully the profession of engineering.

Any Second Year student in the Faculty of Applied Science and Engineering is eligible to apply for this bursary. Applications should be made on the In-course Bursary Form.

**Vern Gomes Memorial Award**
Established by classmates and friends of the late J. Vernon Gomes, this award, of the approximate value of $65, is made to the student entering the Fourth Year of Electrical or Computer Engineering who, having obtained an average not lower than 60% in Third Year, is considered by the Electrical and Computer Engineering Student Staff Committee to have made the most valuable contribution to the class.

**The Blake H. Goodings Memorial Award in Mechanical Engineering**
The Blake H. Goodings Memorial Award was established in 1987 by his wife, Mrs. Gloria Goodings, in memory of her husband, a graduate of this Faculty in 1949.

The award, which is the value of the annual income of a capital donation, is set up in perpetuity. It is made on the recommendation of the Chair of the Department of Mechanical & Industrial Engineering to a student completing the Second Year of the Mechanical Engineering program who has attained a good academic standing, is of sound character and has limited financial resources to support the costs of his or her education. This award is tenable with other awards.
Greater Toronto Sewer and Watermain Contractors Association Award in Civil Engineering
The Greater Toronto Sewer and Watermain Contractors Association provides this award of the value of $5,800. It is granted to a student entering the Fourth Year of the Civil Engineering program who has demonstrated academic excellence and who has shown significant interest in municipal, environmental and construction engineering through summer employment and choice of elective courses.

Recommendation for the award is made by the Chair of the Department, in consultation with the donor. In addition to academic standing, qualities of character and leadership as evidenced by involvement in University and extracurricular activities will be considered.

The George A. Guess Scholarships
The estate of Edna F. Guess, wife of George A. Guess, formerly Head of the Department of Metallurgical Engineering & Materials Science, has bequeathed funds to the University to establish the George A. Guess Memorial Fund for the assistance of needy students in the Materials Engineering program.

The annual income of the Fund is used to provide graduate fellowships; summer studentships and an undergraduate fund in the Department; and two kinds of undergraduate scholarships: the Guess Admission Scholarship and the Guess Scholarships in recognition of academic achievement in the Faculty.

The Guess Admission Scholarship is awarded to a student with high standing in the subjects needed for admission to the First Year of the Materials Engineering program. The value of the award is $3,500 on admission and is renewable at $1,500 in each of Second, Third, and Fourth Years providing honours standing is maintained.

Frank Howard Guest Admission Bursary
Established in 1995, this bursary is awarded to students entering the First Year of any undergraduate program in the Faculty of Applied Science & Engineering on the basis of financial need. Applicants must submit a Statement of Financial Need to the Central Admissions & Awards Office, 315 Bloor Street West, Toronto.

Frank Howard Guest In-Course Bursary
Established in 1995, this bursary is awarded to students enrolled in any year of any undergraduate program in the Faculty of Applied Science & Engineering on the basis of academic standing and financial need. Applicants must complete the regular Undergraduate Grant Application form. Special attention will be given to applicants who are participating in exchange programs in other universities and countries.

B. Conrad Hansen Memorial Award Fund
The fund was established in 1979 in memory of the late B. Conrad Hansen, B.A.Sc., Electrical Engineering, 1962. The income from the fund is used to provide one or more bursaries for students in need of financial assistance, preference being given to students in the Second or Third Year of Electrical or Computer Engineering.

Sydney George Harris Bursary
Established in 1994, the bursary is granted, on recommendation of the Chair, to a student entering either Third or Fourth Year in any program. In addition to mental capacity, the student must show leadership ability and give promise, through activities, of becoming a worthwhile influence in the affairs of the profession and community. While attention is given to scholastic ability, as evidenced by academic standing, it is not the governing factor. The recipient must, however, stand in the top quarter of the class. Special consideration is given to financial need. The annual value is approximately $1,000.

Dr. Arthur Herrmann Memorial Award
The family of Dr. Arthur Alexander Herrmann has established a memorial fund in memory of the 100th anniversary of his birth (July 4, 1891). The award is derived from the income of the fund and will be granted to a Fourth Year student in the Mechanical Engineering program whose major interest and thesis topic reflect concern for the protection of the environment.

Dr. Herrmann won international recognition as an expert on plywood and its applications; he invented a machine for the manufacture of plywood pipes or tubes, and was a well-known researcher, lecturer, and author.

Mackay Hewer Memorial Prize
This prize, of the value of the annual income, was established in memory of the late Professor Mackay Hewer, a member of the teaching staff in the former Department of Mining Engineering, and later in the Department of Chemical Engineering and Applied Chemistry. It is awarded to the student completing the Fourth Year of the program in Chemical Engineering who achieves the highest standing in Fourth Year courses related to environmental studies. The first award was made in 1980-81.

General D.M. Hogarth Bursary
Established in 1992, this bursary is awarded to students registered in any year in either Lassonde Mineral Engineering or Materials Engineering on the basis of financial need. Applicants must complete the regular Undergraduate Grant Application form.
Otto Holden Scholarship
Otto Holden, B.A.Sc., C.E., D.Eng., was a distinguished hydraulic engineer of international reputation. He served Ontario Hydro for 47 years and retired as Chief Engineer in 1960, having been involved in almost all of the major hydro-electric developments in Ontario.

On his death, Mr. Holden left a sum of money that was later augmented by his widow, the late Florence Holden, to establish a scholarship in the Faculty of Applied Science and Engineering. This scholarship, which has a value of approximately $900, is awarded to the student who, completing the Fourth Year of either Civil Engineering or Mechanical Engineering with Honours, achieves the highest aggregate marks in hydraulic engineering subjects in the program.

The first award was made in the 1967-68 session.

Honeywell Scholarships of Excellence
Two scholarships are available to one student completing Second Year and to one student completing Third Year in either Electrical or Computer Engineering. Candidates are selected on the recommendation of the Chair of the Department on the basis of academic excellence with demonstrated interest in power electronics or control systems, qualities of character and leadership and promise of success in the profession. The value of each award is approximately $3,000.

Dr. Vahe Philip Hovnanian Award for Excellence in Chemical Engineering
This award was established in 2003 through the generous donation of Dr. Vahe Philip Hovnanian. The award, valued at the equivalent of $1,000 US, is made to an undergraduate student in Chemical Engineering in the basis of outstanding academic ability (top half of the class) and financial need.

William V. Hull Scholarship
Established in 1981 from a bequest of the late William V. Hull, this award of the annual value drawn from the income of the fund is made to a student ranking in first place in any program on the examinations of the Third Year. Not tenable with other awards.

IEEE Canadian Foundation Scholarship
Established through the generosity of the Institute of Electrical and Electronics Engineers, Inc. (IEEE), this scholarship is granted to a student completing Third Year of Electrical Engineering on the recommendation of the Chair of the Department, the Chair of the IEEE Student Branch and the IEEE Student Branch Counsellor. In addition to good academic standing, the recipient must demonstrate a sincere interest in, and commitment to the activities of the IEEE McNaughton Learning Resource Centre.

The candidate application must be accompanied by a written report on the activities of the Centre and submitted to the IEEE Student Branch Counsellor by February 15th. Nominations must be submitted by the IEEE Student Branch Counsellor in writing or online to the IEEE Canadian Foundation by March 15th.

Institute of Electrical and Electronics Engineers Canada-Toronto Section Scholarship
This scholarship, of the value of $1,500, is provided by the generosity of the Toronto Section of the Institute of Electrical and Electronics Engineers, Inc. (IEEE). It is awarded to a student completing the Third Year in the Department of Electrical and Computer Engineering who has the highest academic standing in the examinations of the year. Not tenable with other awards. In order to enjoy the scholarship, the student must register in the Fourth Year of the program. The first award was made in 1982.

I.O.D.E. (Rosedale Chapter) Award in Engineering Science
An award of $500 is made annually to a student enrolled in the Third Year of Engineering Science, on the basis of academic standing and financial need. Recipients must be Canadian citizens, but not necessarily residents in Ontario.

Application should be made on the Undergraduate Grant Application Form.

The L.E. (Ted) Jones Award of Distinction
The award was established to acknowledge the contributions of L.E. (Ted) Jones, Professor Emeritus of Mechanical Engineering (on staff: Applied Physics, 1936-44; Mechanical Engineering, 1944-75) and Engineering Archivist (from 1970), over his long and distinguished career, to students, alumni and the Faculty, as well as his continuing support and dedication to the Engineering Society and the Engineering Alumni Association of the University of Toronto. The award endorses Ted’s great appreciation of the arts and his love of music in particular.

The award is presented annually to a graduating student in the Faculty of Applied Science and Engineering who has achieved distinction in his or her academic program while making a significant contribution in the musical field during the year at University. Sponsored by the Engineering Alumni Association, the award consists of a certificate of recognition presented annually at the Grad Ball and subsequently at Spring Reunion.

Nominations for the award may be submitted to the Engineering Alumni Office by undergraduate students, members of the Faculty, or alumni by January 31 of the year in which the award is to be given. Nominations should include sufficient information for the Committee to determine the merits of the nominee. The Committee reserves the right to suspend presentation of the award if suitable candidates are not identified in any year. The selection Committee will comprise the Director-Alumni Relations,
a member of the Faculty, the President and first Vice-President of the Engineering Alumni Association, the President and the Fourth Year Chair of the Engineering Society.

The first award was presented in the spring of 1997 and will be awarded annually thereafter.

K. H. Kidd Scholarship
This award was established in 1986 in memory of Mr. K.H. Kidd, M.A.Sc., P.Eng., F.I.E.E.E., a long term consultant for the association, who died on August 3, 1986, and is provided by the Association of Major Power Consumers in Ontario (AMPCO).

The scholarship of $500 is granted to a student completing the First Year in Electrical or Computer Engineering, on the basis of academic excellence. To enjoy the award the recipient must register in the Second Year of the program.

Mr. Kidd graduated in Engineering Physics from the University of Toronto in 1942 and, following military services, joined the staff of Ontario Hydro. He received his post graduate degree in 1946 and completed the General Electric Company’s power systems course in 1952. He served with Ontario Hydro’s Planning Division until 1955 when he joined the staff of British Columbia Electric Company as manager of System Planning. He was subsequently appointed Vice President of B.C. Electric’s engineering subsidiary and was responsible for the planning of the Peace River Power Project and conducted financial and power sales negotiations for its sponsors.

After entering consulting practice in 1961, Mr. Kidd served as senior consultant to utilities in many countries as well as to international financing agencies. Mr. Kidd was elected a fellow of the Institute of Electronic and Electrical Engineers in 1966.

This award is not tenable with other awards of equal or greater value.

Kodak Engineering Scholarships
Established in 2003 through the generosity of Kodak Canada, these scholarships will be given to five students entering Third or Fourth Year of Chemical Engineering (Environmental Option), on the basis of academic ability. Preference will be given to students who demonstrate financial need. At least two of the five must be female students.

Lassonde Scholarships
The Lassonde Scholarships were established through the generosity of Mr. Pierre Lassonde. These scholarships, derived from the annual interest of the capital fund, will be granted as follows: Several awards granted on admission to the Lassonde Mineral Engineering Program or Lassonde Institute of Mining based on academic standing and qualities of character and leadership. These awards are renewable once provided honours standing is maintained and provided the recipient proceeds to the Second Year of the Lassonde Mining Program. If the scholarship(s) is not renewed, it will be awarded by reversion to the best qualified candidate. The remaining scholarships are to be divided among students in the Second, Third and Fourth Years of the Lassonde Mineral Engineering Program on the basis of academic standing and qualities of character and leadership. The recipients of these awards will be known as the Lassonde Scholars.

Lassonde Bursaries
In addition to the above scholarships the Lassonde Bursaries have also been established. The bursaries will be granted on the basis of financial need to students in any year of the Lassonde Mineral Engineering Program.

Applicants must complete the regular Undergraduate Grant Application form.

John C.H. Lee Memorial Scholarships
The Industrial Engineering Class of 8T7 initiated the John C.H. Lee Memorial Scholarship in memory of their friend and classmate. The scholarship was funded by friends, classmates, the Korean community and family members seeking to recognize students registered in the Faculty of Applied Science and Engineering who have achieved high academic standing and who demonstrate athletic proficiency, extracurricular involvement and contribution to residence life.

Two scholarships, each valued at $1,000, for students entering Third Year and one scholarship valued at $2,000 for a student entering Fourth Year, may be awarded annually. Applicants must be living in a University Residence during their last completed academic year and must live in Residence in the following year in order to enjoy the award.

Application forms are available in the Office of the Registrar in the Faculty and in University Residences. The application deadline is March 15.

Stavros Leventis Award
Provided by Mrs. Elsha Leventis, classmates 6T8 and friends of the late Stavros Leventis, this award is given to a student in Second or Third Year of Electrical Engineering who, while maintaining a B average or better, contributes to the University and community at large through volunteer participation. The student must possess qualities of leadership and integrity and demonstrate a keen interest in computers.

Charles A. Lowry Prize
Gift of the late Mrs. B. Lowry, this prize is awarded to a student in Mechanical, Electrical, or Computer Engineering who, having successfully completed the First Year in the Faculty of Applied Science and Engineering, achieved the highest mark in the course CIV101F, Structures, Materials and Design.
The Earl Charles Lyons Memorial Award
The Earl Charles Lyons Memorial Award was established in 1983 by his wife, Mrs. Earl C. Lyons, in memory of her husband, a graduate of this Faculty in 1933.

The award, which is set up in perpetuity, is of the value of the annual income of a capital donation. It is made on the recommendation of the Chair of the Department of Mechanical & Industrial Engineering to a student completing the Third Year of the Mechanical Engineering program with Honours. In addition to academic standing, consideration will be given to character and leadership capabilities through involvement in student and professional activities. This award is not tenable with other awards.

The first award was made in the 1983-84 Session.

James Turner MacBain Scholarship and Bursaries
Established in 1990, this bequest from the estate of James Turner MacBain provides awards annually from the income of the fund.

The James Turner MacBain Scholarship, derived from half of the income, is awarded to a student entering the First Year in any program in the Faculty on the basis of academic excellence. One half of the annual income will provide one or more bursaries to students registered in any year in the Faculty on the basis of financial need. Application for the James Turner MacBain bursaries should be made on the Undergraduate Grant Application form.

The first awards were made in the 1991-92 session.

The Elsie Gregory MacGill Memorial Scholarship
Established in 1995, this award is granted to an outstanding female student in the Fourth Year of any program in the Faculty on the basis of academic standing and demonstrated commitment to women’s issues within the Faculty and the community at large. In addition to academic standing, qualities of character and leadership abilities are also considered. The award will alternate with the Faculty of Arts & Science.

The Alexander MacLean Scholarship
The scholarship was established by graduates of the University of Toronto and other friends in honour of Professor Alexander MacLean, B.A. (1908) who retired in 1954. The scholarship is awarded to an outstanding student in GLG 318H and/or GLG319H in the Department of Geology, Faculty of Arts and Science, or completing Third Year of Lassonde Mineral Engineering, Faculty of Applied Science and Engineering. The first award was made in 1955.

MacLennan-MacLeod Memorial Prize
The Graduating Class of 1910 has donated an annual prize in memory of their first Class President, George MacLennan, who was killed in action in France in 1917, and of Doug MacLeod, their first Secretary, who died in France in 1916 from wounds received in action.

The prize, of the value of approximately $25, is awarded to the First Year student in the Faculty of Applied Science and Engineering who ranks highest in Calculus among those who obtain standing without condition at the annual examinations; or, in the event of more than one student obtaining equally high rank in Calculus, to the one of these who also has the highest standing in some other subject common to the competitors, such as Algebra, such subject to be determined by the Council of the Faculty.

An award will not be made in any year in which, in the opinion of the Council, no student obtains a sufficiently high standing in Calculus to merit the award. If in any year no award is made, a second award will be available in the subsequent year.

Salim Majdalany Scholarship
The scholarship was established by family and friends in memory of the late Salim Majdalany (B.A.Sc., 1980, Civil Engineering). The award, the value of which is one half of annual income of the fund, is granted on academic standing to a student from Lebanon, Syria, Jordan, Iraq, or any other member state of the Arab League, who is entering or is enrolled in the Faculty of Applied Science and Engineering or the Faculty of Law.

The award is open to students in both Faculties but priority is to be given to candidates from the Faculty of Applied Science and Engineering.

Charles Gordon Manning Prize
The Charles Gordon Manning Prize was established by a bequest under the will of the late Jennie Manning in the amount of $500, the annual income from which is to be used to buy books for the winner of the prize.

The recipient must be enrolled in the Second Year of a course offered by the Faculty of Applied Science and Engineering and, in the opinion of the Council, rank second to the student awarded the Harvey Aggett Memorial Scholarship in the considerations for the award of that scholarship. Specifically, these are: achieving Honours in the final examinations and being ranked one of the first three at those examinations relative to the pass requirements in the department; and being adjudged highest of the three in general student activities and service in the University during First Year.

The first award was made on the results of the annual examinations in 1954.

J. Edgar McAllister Foundation Bursaries
Through the generosity of the late J. Edgar McAllister, a graduate of the Faculty in 1895, a fund has been established in the University to be known as the J. Edgar McAllister Foundation, to provide financial aid for students who require it, in Mechanical, Chemical, Electrical, Computer, Lassonde Mineral, or Materials Engineering. Application should be made on the Undergraduate Grant Application Form.
J. Edgar McAllister Summer Research Fellowships
Summer research fellowships are available to undergraduate students who have completed the First, Second or Third Year of Chemical, Electrical, Computer, Mechanical, Lassonde Mineral, or Materials Engineering.

Interested students should apply by application to the Chair of their department early in the Winter Session. Selection criteria will include the applicant’s academic background and interests, and financial need.

John B. McGeachie Grant
Established in 2002 through a generous donation by John B. McGeachie, this grant is given to a Third Year student of any program on the basis of financial need. Application should be made on the Undergraduate Grant Application Form.

The Garnet W. McKee-Lachlan Gilchrist Scholarship in Engineering Science
Mrs. Garnet W. McKee and Professor Lachlan Gilchrist each contributed $1,000 to provide for a scholarship in the First Year of the course in Engineering Science.

The value of the Scholarship is the annual income from the capital fund and is awarded to the student who ranks first in Honours at the annual examinations of the First Year in Engineering Science.

If for any reason that student is ineligible to hold the Scholarship, it will be awarded by reversion to the student ranking second in Honours in the course. To receive payment the winner must register in the Second Year of the course in Engineering Science.

The Scholarship was awarded for the first time on the results of the annual examinations in 1947.

The Garnet W. McKee-Lachlan Gilchrist Geophysics Scholarships
Professor Lachlan Gilchrist of the Department of Physics, University of Toronto, received financial assistance from certain organizations and individuals to help him in prosecution of his research work in Geophysics. With the consent of the contributors, the unexpended balance of these gifts was transferred by Professor Gilchrist to the Board of Governors of the University to be used as an endowment for scholarships, two of which were established in the Faculty of Applied Science and Engineering. Additional amounts received from the estate of Garnet W. McKee and from the Hollinger Consolidated Gold Mines Ltd. have been added to this fund.

The scholarships are awarded by the Governing Council on the recommendation of the Council of the Faculty of Applied Science and Engineering. The first awards were made on the results of the annual examinations in 1941.

The First Garnet W. McKee-Lachlan Gilchrist Geophysics Scholarship
This scholarship of approximately $350 is awarded to the student in the Second Year of Engineering Science who has the highest aggregate standing at the examinations of the First and Second Years in the course, provided always that the student obtains Honours standing at the examinations of the Second Year.

The Second Garnet W. McKee-Lachlan Gilchrist Geophysics Scholarship
This Scholarship is awarded to the student who ranks second in Second Year of Engineering Science and who achieves the highest aggregate standing at the First and Seconds years of that course, provided always that such student obtains Honours standing in the examinations of the Second Year.

If in any year there is no student who has fulfilled the condition as laid down for the Second Lachlan Gilchrist Geophysics Scholarship, it shall be awarded to the student in the Second Year of Engineering Science who achieves the second highest aggregate standing at the examinations of the First and Second Years of that course, provided always that such student obtains Honours standing in the examinations of the Second Year.

Hugh Middleton Bursary
This award, established in 2001, is to be awarded to a student in the Faculty of Applied Science and Engineering on the basis of financial need. Application is through the Undergraduate Grant Application form.

Kiyoharu and Kiyoaki Momose Memorial Scholarship
This scholarship in the amount of approximately $300 was bequeathed by Yoshiko Momose. The award will be made to a student entering the penultimate or final year in Medicine, Engineering or Sociology. It was the hope of the donor that the recipient would exhibit qualities of leadership and all-around participation in extracurricular activities. The award will alternate among the Faculties of Medicine, Engineering and Arts and Science.

R.F. Moore Thesis Award
Established in 2003, this award is made on the recommendation of the Chair of the Department of Mechanical & Industrial Engineering to a fourth year Industrial Engineering student (or students) for the best thesis in the Industry category. The award consists of a certificate and travel expenses for the recipient to attend the CSIE Conference. In the event of a joint project winning- funding will be provided for only one presenter at the Conference. The individual(s) must be a member of the CSIE. The thesis must be based on a practical industrial problem researched during the fourth year or during the previous summer employment. The term “Industry” is defined to include manufacturing, resource produc-
SCHOLARSHIPS AND AWARDS

tion, the service industry, including the health care field, and other situations. The submission for this prize must be accompanied by a letter from a senior executive of the company involved attesting to the satisfactory completion of the research and analysis. Each application must include a note committing the student on winning the prize to present the work at the following annual CSIE student conference.

James L. Morris Memorial Prize
The James L. Morris Memorial Prize is the gift of Mrs. J.H. Craig and Mr. J.R. Morris, K.C., in memory of their father, James L. Morris, C.E., O.L.S., D.Eng., the first graduate of the School of Practical Science, who died in 1946 after a distinguished career.

Graduating in Civil Engineering in 1881 as the sole member of his class, Dr. Morris engaged in railway work for some time, first as an engineer and then as a contractor. For forty-three years he conducted a successful civil engineering practice in Pembroke, Ontario, involving important undertakings in the field of municipal power and bridge work.

The prize, of the value of the annual income from $3,000, is awarded annually to the student in the Second Year of the Civil Engineering Program who achieves the highest aggregate percentage at the annual examinations of the First and Second Years of the course, provided always that the student achieve Honours standing at the examinations of the Second Year.

Don Morrison Memorial Award
To be awarded to a student on the basis of financial need, academic merit and participation in sports. Preference will be given to those students who are involved in competitive sailing or hockey.

Joseph G. Monkhouse Memorial Bursary in Engineering
This award, established in 2000 by the Estate of Margaret E. Monkhouse, is to be awarded to a student who has high academic qualifications and shows financial need. Application should be made by the Undergraduate Grant Application form.

Peter L. Munro Memorial Scholarship
This fund was established in 1987 by family, friends and business associates in memory of Peter L. Munro, ST9, Mining Engineering. One or more awards derived from the annual income are granted on the recommendation of the Chair of the Division of Mineral Engineering to students completing the Second or Third Year who demonstrate commitment to the Canadian Mining Industry. In addition to good academic standing, financial need and qualities of character and leadership will also be considered.

The first award was made on the results of the 1987-88 Session.

Samer Mutlak Memorial Award

Samer was a warm, jovial, and caring person, always able to bring a smile to those whose lives he touched. He took part in many social events within the University. He was a leader and an organizer taking part in frosh! orientation, Lady Godiva Week, hockey, and the student industrial engineering conferences.

He took pride in being an industrial engineer. He will be remembered fondly for his sense of humor. He was a good friend.

The award, derived from the annual income, will be made to a student completing Third Year in Industrial Engineering on the recommendation of the Department Chair on the basis of financial need, academic ability and contribution to, and involvement in the activities of the department and the University.

Henry and Mary Nahrgang Bursaries
The income of the capital sum donated by the late Armond R. Nahrgang, class of 1923, is used to provide bursaries for qualified students in need of financial assistance.

Application is on the Undergraduate Grant Application Form.

NACE International, Toronto Section, Prize
The Toronto Section of the National Association of Corrosion Engineers (NACE) provides one prize annually of a value of $200 to be awarded to the student in the Fourth Year of a program in any field whose thesis on the subject of Corrosion Science and Engineering is considered to be of suitable quality and the most satisfactory.

The first award was made in 1989-90 academic year.

Nortel Institute Undergraduate Scholarship(s)
This scholarship is made possible through a donation from Nortel Networks Limited. It is awarded to students in Second or Third Year of Applied Science and Engineering and Arts and Science on the basis of financial need and academic merit and an essay. Candidates must submit an essay on “The Future of Communications” (maximum 500 words) along with two references. Application forms are available from the Faculty Registrar’s Office. The application deadline is November 1.

Ontario Power Generation Award
Provided through the generosity of Ontario Power Generation, this scholarship is awarded to students entering the Second Year of either Electrical, Computer, Mechanical, Chemical, or Environmental Engineering. Students must be a member of employment equity target group (women, aboriginal, disabled, visible minority). In addition to academic standing (minimum B
average) the following will also be considered: demonstrated leadership skills, possess strong oral and written communication skills, and are involved in extra-curricular activities. Candidates must be legally eligible to work in Canada upon graduation. Will not be receiving more than one award of equal or greater value in second year.

Barry James O’Sullivan Grant
This grant was established in 2003 through a bequest from the estate of Victoria Doris O’Sullivan in memory of her son Barry James O’Sullivan, whose untimely death in 1969 occurred while he was studying Engineering at U of T. This award will be made to a student entering or proceeding in any undergraduate program in the Faculty on the basis of financial need.

Application should be made on the Undergraduate Grant Application Form.

The Dr. John Hamilton Parkin Scholarship
Established by family friends and colleagues in 1983, this award honours the late Dr. John Hamilton Parkin, 1T1, 1T2 Mechanical and Electrical Engineering.

His class of 1908-11 was the last in the S.P.S. Diploma course with degree option. From the mechanical field he moved to a pioneering role in aeronautics on staff in the University of Toronto’s new Mechanical Department from 1912 until 1929 (Associate Professor), with a three-year wartime leave to the chemical industry. He set up Canada’s first university windtunnel (1919), initiated Canada’s first undergraduate Aeronautical program (1928) and began a lifelong career in applied research.

Moving to Ottawa, he gave strong leadership at the National Research Council, becoming Director, Division of Mechanical Engineering (1937), and founding Director, National Aeronautical Establishment (1951). His authorship was prolific and his career accomplishments have been widely acknowledged through distinguished honours and awards, including C.B.E. and F.R.S.C.

The award, the value of which is the annual income of a donation, is given to a student completing the Third Year of the Aerospace Option in the Engineering Science program on the basis of financial need, academic standing and a demonstrated sincere interest in the aerospace field.

This award is tenable with other awards.

Paulin Memorial Scholarship
The Paulin Memorial Scholarship, provided through the generosity of the late Mr. Fred W. Paulin, a graduate of this Faculty in 1907, was established in memory of his brother, John Cameron Paulin, a student of this Faculty who was fatally injured in 1906 during a football practice. The scholarship, which has the value of the income from a capital fund of $10,000, is awarded to a student who obtains high standing in the work of the First Year in the Faculty of Applied Science and Engineering.

A. B. Platt Award, Toronto Section of the Society of Tribologists and Lubrication Engineers
Funded in perpetuity by a capital donation from the Toronto Section of the Society of Tribologists and Lubrication Engineers (STLE), this prize is awarded annually to the student in the Fourth Year of the Mechanical Engineering program whose work in tribology (friction, wear or lubrication) is considered by the Chair of the Department of Mechanical & Industrial Engineering to be of suitable quality and the most satisfactory.

The award has a value of $100, of which $75 is presented to the student, and $25 to the Department for the purchase of publications on tribology.

Florence Evelyn and William Leonard Prideaux Award
This award, established by the estates of Florence Evelyn and William Leonard Prideaux is to be awarded to a Canadian Inuit or Aboriginal Boy Scout from the North West Territories or Moosonee area who is entering or registered in the Faculty of Applied Science and Engineering, Architecture Programs in the Faculty of Arts and Science or Wycliffe College. It is to be awarded on the basis of scouting service and experience.

Professional Engineers Ontario Foundation for Education In-Course Scholarships
The Professional Engineers Foundation for Education offers a total of eight scholarships of $1000 each in First, Second and Third Years in the Faculty of Applied Science and Engineering in any Program; four to students who obtained the highest standing in the work of his/her respective year and four to students who have exhibited exceptional role model qualities through participation in the non-academic activities while maintaining above average marks.

These scholarships will not be awarded to students who hold other scholarships.

Professional Engineers Ontario Medal for Academic Achievement
The Professional Engineers Ontario has established in the Faculty of Applied Science and Engineering an award in the form of a medal. The award will be made to the student in the final undergraduate year in any program who, obtaining Honours, achieves the highest weighted average percentage in the practical work and written examination of the year.
Ransom Scholarship in Chemical Engineering
The Ransom Scholarship in the Chemical Engineering & Applied Chemistry Department was established by A.C. Ransom, Esq. of Toronto to encourage and give financial assistance to students in the Department. This donation, consisting of $5,000, provides for a perpetual scholarship of an annual amount derived from the income of the donation. The first award was made on results of the annual examinations in 1938.

The scholarship is awarded annually to the student registered in the Chemical Engineering program who achieves the highest aggregate percentage of marks in the examinations of the First Year. The scholarship will be paid to the winner only if the recipient proceeds to the Second Year of the program at the University of Toronto.

Reginald J. Redrupp Award
This award was established in 1987 by friends and colleagues in memory of Reginald J. Redrupp, a distinguished mining banker with the Canadian Imperial Bank of Commerce who was active in the Prospects and Developers Association and the Canadian Institute of Mining and Metallurgy.

Two awards derived from the income will be given annually to students proceeding to the Second Year of Lassonde Mineral Engineering. Academic standing, financial need and commitment to the Canadian mining industry may be considered in granting the award.

J.E. Reid Memorial Prize
This prize, established in 1967 in memory of the late Professor J.E. Reid, is awarded to the student in the Fourth Year of the program in Electrical or Computer Engineering who, graduating with Honours, achieves the highest aggregate marks in electronic communication.

The Russell Reynolds Scholarship in Engineering Science
This award, established in 2001, is to be awarded to a student entering the 3rd year in the Division of Engineering Science. This student must have displayed high academic achievement. Preference will be given to a student demonstrating financial need. This scholarship is not tenable with other awards.

The Bertrand G. W. Robinson Award
The annual income from a bequest made in 1991 from the Estate of the late Bertrand G.W. Robinson provides one or more bursaries to students in the Third Year in any program, on the basis of financial need.

Mr. Robinson graduated in Mining Engineering in 1930 and was employed in managerial positions in the gold mining industry of Northern Ontario. He was the Canadian representative of Hardinge Mining Equipment of York, Pennsylvania, and acted as a consultant to mining projects in Canada, England, and East Indies. After retirement, he returned to the University of Toronto and in November, 1979 graduated with his Master of Engineering.

Application should be made on the Undergraduate Grant Application Form.

The Richard Rowland Memorial Scholarship
This scholarship was established by family, friends and colleagues in memory of Richard Rowland, an active member of Phi Delta Theta and a 1989 graduate of Mechanical Engineering. Richard passed away in 1996 as a result of an automobile accident.

While Richard was successful in his work as an engineer, he found time to explore the outdoors when canoeing and skiing. He was also active in amateur theatricals. His circle of friends reflected these varied activities.

It is to be awarded on the recommendation of the Chair to a student completing Third Year of the Mechanical Engineering program who has a good overall academic record, intends to continue in the Fourth Year and has demonstrated an interest in Heating, Ventilating, and Air Conditioning.

This award is restricted, (by request of the donor) to students who are Canadian Citizens or permanent Canadian residents and is not tenable with other awards of equal or greater value.

Don Salt Memorial Scholarships
In memory of Donald John Salt, a graduate of the Faculty of Applied Science and Engineering and a practising geophysicist, the Canadian Exploration Geophysical Society has provided two scholarships of $500. They are open to students in the Third and Fourth Years of certain courses in the Faculty of Arts and Science, and in Lassonde Mineral Engineering in the Faculty of Applied Science and Engineering. The award is made on evidence of the interest and ability of the applicant in relation to the field of mining geophysics.

Application should be made either to the Chair of the Department of Physics or the Chair of the Department of Geology and Applied Earth Science by March 1 in the calendar year in which the award is to be made.

Frederick W. Schumacher Scholarship
The Frederick W. Schumacher Scholarship has been established in the Faculty of Applied Science and Engineering and in the Faculty of Arts under a bequest of the late Frederick W. Schumacher. It has a value of the income from the fund. The scholar must be enrolled in the Second, Third or Fourth Year in Lassonde Mineral Engineering in the Faculty of Applied Science and Engineering, or in Physics and Geology of Geological Sciences in the Faculty of Arts and Science and must have high academic standing.

“Second Mile Engineer” Award
The Class of 3T5, has established the “Second Mile Engineer” award. The award was inspired by an address of President William E. Wickenden of the Case School of Applied Science, Cleveland,
called “The Second Mile,” which was based on the text from the Sermon on the Mount: “Whosoever shall compel thee to go one mile, go with him twain.” Convinced that a successful engineer must not only be professionally competent but also be constantly aware of his or her responsibilities to humanity, it is the desire of the donors to encourage undergraduates to participate fully in extracurricular activities and to recognize the true importance of the more liberal subjects of the curriculum with the ultimate objective, on entering the profession, of becoming worthy Second Mile Engineers.

The award comprises a grant of $3,000, a suitably inscribed presentation piece and an illuminated scroll, and is presented to a student in the final year.

An eligible group is chosen from those who have taken a prominent part in the affairs of the Faculty, either as office holders or in athletics. In making the award, consideration is given to academic standing, with special emphasis on the candidate’s attainments in the cultural, humanistic and social studies.

Particulars are furnished each session by the Class of 1935.

**Adel S. Sedra Bursary Fund**
This bursary fund was established in 1997 by Adel S. Sedra, B.Sc., M.A.Sc., Ph.D., a graduate of the Faculty, former Chair of the Department of Electrical and Computer Engineering and Vice-President and Provost of the University of Toronto. The awards, derived from the annual income from a capital donation, will be granted to students in any year in the Department of Electrical and Computer Engineering on the basis of financial need.

Application should be made on the Undergraduate Grant Application Form.

**Adel S. Sedra Gold Medal**
This award was established in 2002 through the donation of J. Robert S. Prichard, former President of the University of Toronto, to recognize Professor Sedra’s exceptional contributions to both the discipline of engineering and the leadership of the University of Toronto through his service as Professor, Chair, and Vice President and Provost. The medal is awarded annually to two students in the graduating class who have earned the highest cumulative grade point average in each of Electrical and Computer Engineering.

**The Joseph Seidner Bursary Fund**
The Joseph Seidner Bursary Fund was established in 1987 by Mr. Joseph Seidner, a principal in the firm of Brady & Seidner Associates Ltd., a large Mechanical Contractor in Ontario and who for many years contributed to the well-being of the construction industry.

The annual income of the capital in the Bursary Fund, established in the Faculty of Applied Science and Engineering, at the University of Toronto, is to be awarded to one or more deserving Second or Third Year Ontario students in the Mechanical Engineering program on the basis of financial need arising during the course of an academic year. This award is open to Canadian citizens or permanent Canadian residents.

Application should be made on the Undergraduate Grant Application Form.

**The Shaw Design Scholarships**
Established in 2002 through a generous donation by William and Barbra Shaw, these Scholarships are awarded to students beginning third year of engineering science. Preference will be given to students who have high academic standing in the first two years. Additional preference will be given to students who demonstrate strong achievement in the 2nd Year Engineering Design course and who are involved in extracurricular design projects. Selection will be made by department nomination and announced at a suitable occasion, such as the annual Engineering Science dinner.

**Society of Chemical Industry Merit Award**
The Society of Chemical Industry Merit Award presents a commemorative plaque each year to the student in Fourth Year in the Department of Chemical Engineering and Applied Chemistry who achieves the highest weighted average of marks in the results of the annual examinations for the year.

**The Sony Science Scholarship**
This scholarship is established by Sony of Canada Ltd. It is in celebration of the company’s 35th Anniversary of the arrival of the first Sony product in Canada. Sony also wishes to place its support and emphasis on technology and believes in the importance of the development of science and technology for the future.

The award will be given to an outstanding Third Year student in either Electrical or Computer engineering on the basis of outstanding academic ability. The first award was given in 1993. The value of this award is $1,500.

**Murray F. Southcote Scholarship**
This scholarship was established in 1965 through the generosity of friends and associates of the late Murray F. Southcote (through W.R. Laidlaw). This scholarship is granted to a student who obtains high academic standing at the end of Third Year in any program in the Faculty.

**Stelco Undergraduate Scholarships**
These scholarships, derived from the annual income of a capital donation were established in 1997 through the generosity of Stelco Inc. Two scholarships are available to students in the Department of Materials Science and Engineering on the basis of academic standing and financial need. The scholarships are renewable providing satisfactory standing is maintained.
C.H.E. Stewart Bursaries
Under the provisions of the will of the late Mary Jones Stewart, a sum of $10,000 was bequeathed to the University, the income of which is to be used to provide a number of bursaries to students in Third and Fourth Years of courses in the Faculty of Applied Science and Engineering. The awards are made on the basis of financial need, scholastic ability and general character, with preference given to students who are descendants of veterans of the First and Second World Wars. Applications should be made on the Undergraduate Grant Application Form.

The Maurice Stren Memorial Scholarship
This scholarship was established in 1995 by Mrs. Sadie Stren in memory of her husband, Maurice, who graduated from the Department of Mechanical Engineering in 1943. Throughout his long career, Mr. Stren possessed an unbounded enthusiasm for all facets of Engineering.

The award, which is derived from the annual income of a bequest of a capital sum of $10,000 is granted, on the recommendation of the Chair, to a student completing the Second Year of the Mechanical Engineering program. In addition to academic excellence, qualities of character and financial need will also be considered. The first award was granted in the 1995-96 Session.

The Kenneth H. Sullivan / Pratt & Whitney Canada Scholarship
This scholarship was established in 2003, through a generous donation by both Pratt & Whitney Canada Corp. and the family of Kenneth H. Sullivan. This award, valued at $5,000, is made to a Third Year student in the Aerospace Option of the Division of Engineering Science on the basis of high academic standing. Preference will be given to students who have demonstrated an interest in the study of the powerplant aspects of aerospace engineering. Recipient must be Canadian Citizen or Permanent Resident.

Teck Cominco Limited Scholarship
The Teck Cominco Limited scholarship will be awarded to a Third Year student in one of the following programs: Chemical Engineering, Lassonde Mineral Engineering, or Materials Engineering.

The recipient must demonstrate a sincere interest in the mining, chemical or metallurgical industries, show qualities of character and leadership and engineering promise, be in the upper half of the class and be eligible to work in Canada. The scholarship may be renewed once in the Fourth Year provided the recipient has achieved satisfactory standing on a full Third Year program.

James D. Todd Memorial Scholarship
The James D. Todd Memorial Scholarship is valued at $500 and is awarded to the student with the highest standing in a course relating to cost engineering.

This award was established in 1984 by the American Association of Cost Engineers (AACE, Inc.) Toronto Section, in memory of James D. Todd, who held several offices in the AACE, Toronto Section. His career included cost analysis, planning and construction over a broad range of heavy engineering projects. He set high professional standards for himself and worked indefatigably in the enhancement of the careers of others.

The first award was made in the 1983-84 Session. AACE also funds an external scholarship competition program and details will be provided annually by the Association.

Gordon F. Tracy Scholarship
Donated by the family of the late Gordon F. Tracy, Professor of Electrical Engineering in this Faculty, this scholarship has the value of the annual income on the capital fund of $10,000. It is awarded to the student who, achieving Honours standing in the Third Year of Electrical or Computer Engineering, obtains the highest aggregate marks in the Third Year examinations in the subjects pertaining to electromechanical energy conversion.

Charles Edwin Trim Scholarship
This scholarship fund was established in 1991 by Mrs. Hazel Trim in memory of her husband Charles Edwin Trim. The income derived from the capital will provide one or more scholarships on the basis of academic excellence. Preference will be given to students entering the Third or Fourth Year.

Marjorie Hilda Merrick Turner Award
The President of the Engineering Society receives the Marjorie Hilda Merrick Turner Award, which is derived from the income of a capital fund, established in 1985 by the sons of Mrs. Marjorie H.M. Turner.

As a granddaughter, daughter, wife, mother, and grandmother of engineers, and as wife, mother, and grandmother of members of Engineering Societies, Mrs. Turner has observed first hand the evolution and growth of the engineering profession in Canada, from the construction of the country’s infrastructure, through the expansion of its resource and secondary manufacturing industries, to the development of its high technology capabilities.

This award reflects her recognition and support of the well-rounded individual, as typified by the President of the Engineering Society. It was her wish to provide some modest financial assistance to the incumbent with the hope that it will further encourage the recipient to strive for excellence in all areas of life.

Edith Tyrrell Memorial Bursary
The Women’s Association of the Mining Industry of Canada has presented this bursary of $1,750 annually since 1939. It is named in memory of their founder and President, Edith Tyrrell. A medal donated by Dr. Tyrrell accompanies this bursary.
The bursary is awarded to a student entering the Third or Fourth Year in the Departments of Metallurgical Engineering and Materials Science, or Lassonde Mineral Engineering; it may be awarded two years in succession to the same student, but will usually be awarded at the beginning of the Third Year. The award will be made by a special Committee appointed by the Association on the following basis:

(a) In addition to mental capacity, the student must show leadership ability and give promise, through activities, of becoming a worthwhile influence in the affairs of the profession and the community.

(b) While attention is given to scholastic ability, as evidenced by academic standing, it is not the governing factor. The recipient must, however, stand in the top quarter of the class.

(c) Special consideration is given to financial need.

For more information, see Pierina Filippone in the Engineering Undergraduate Admissions Office, Galbraith Building, room 153 early in the Fall Session.

James W. and H. Grattan Tyrrell Memorial Scholarship in Civil Engineering
Established in 1976 by H. Grattan Knox Tyrrell of the United States in memory of James W. Tyrrell and H. Grattan Tyrrell, graduates of the School of Practical Science in 1883 and 1886 respectively, this scholarship recognizes academic excellence in the work of the Third Year of the Civil Engineering program. The award is restricted (by request of the donor) to students holding Canadian citizenship.

UMA Scholarship in Civil Engineering
Established in 1984 through the generosity of the UMA Group, this scholarship is awarded on the recommendation of the Chair to a student completing the Second Year of the Civil Engineering program. In addition to high academic achievement, diversity of interests and suitability for leadership in the engineering profession will be considered. The first award was made on the results of the 1984-85 session.

University of Toronto Women’s Association Scholarship
In 1995 the University of Toronto Women’s Association donated a capital sum to the University, a portion of which provides an award in the Faculty of Applied Science & Engineering. This scholarship is awarded to a male or female student in any year of any program in the Faculty on the basis of academic standing. The value of the award is derived from the annual income.

The Vince Volpe Civil 8T3 Memorial Award
Friends, classmates and relatives of Vince Volpe have established an annual award of $500. Vince Volpe, a graduate of the class of Civil 8T3, was an outstanding leader and friend to all his classmates. He was active in intramural sports, the Civil Engineering Club, and was Vice-President of the Engineering Society.

The Stewart Wilson Award
This award, first made in 1965-66, is available through the generosity of the Engineering Alumni Association. Its value fluctuates to cover the residence fee of New College ($6208-6362 for 1999-00).

It is open to students who, proceeding to the Second or Third Year of any course in the Faculty of Applied Science and Engineering, were resident or non-resident members of New College during their First or Second Year. The award is based upon academic ability, leadership qualities, contribution to New College activities and financial need. The award winner shall reside in the New College residence during the academic year of the award.

Application should be made to the Registrar of New College by April 1st, and announcements regarding a successful candidate will be made by June 30th.

W.S. Wilson Medals
These medals have been provided by the Engineering Alumni Association in recognition of the service to the Faculty of Applied Science and Engineering of its former Assistant Dean and Secretary, William Stewart Wilson.

A medal is awarded to the student in each graduating course, who, attaining Honours, achieves the highest standing in the final year of the course. The first awards were made in the Session 1962-63.
William R. Worthington Memorial Scholarship
The William R. Worthington Memorial Scholarship, the gift of Ida R. Worthington in memory of her brother, William R. Worthington, DIPL.(1904), B.A.Sc.(1905), of the value of the income from the fund, is awarded annually to a student in Second Year of the Civil Engineering program who ranks highest at the annual examinations of that year.

The first award was made in the 1954-55 Session.

Barbara Zdasiuk Memorial Scholarship
An award fund has been established by the family and friends of Barbara Zdasiuk, a graduate of Engineering Science, who died in a traffic accident in 1980. The award, consisting of a medal, appropriately inscribed, and a cash prize drawn from the income of the fund, is made to the graduating student completing any option in Engineering Science who has obtained the highest cumulative total of weighted session averages for the eight sessions of the program.

LOAN FUNDS

Small loans can be made from the funds listed below to students who are in urgent need of assistance. The funds are not large and the loans must be restricted, both in amount and number, principally to students in the Third and Fourth Years.

Inquiries for loans from any of the following funds should be made at the Office of the Registrar, Galbraith Building, Room 153.

Avro Aircraft Limited Engineering Loan Fund
Avro Aircraft has established a loan fund of $3,000 to provide loans to Engineering students requiring financial assistance.

Class of '09 Trust Fund
The Class of '09 on the 50th anniversary of their graduation made a sum of money available in the Faculty for financial aid to undergraduates, with preference to Second Year students.

Class of 1936 Loan Association
Members of the Class of 1936 have made arrangements to assist students in obtaining loans through banking facilities.

James W. Crocker Memorial Loan Fund
This fund was established by Mrs. William Crocker in memory of her son, James W. Crocker, a graduate in Mining Engineering in 1938, who was killed in an accident in a mine in the same year.

The Devonshire Loan Fund
This fund has been established by graduates and friends of Devonshire House to assist students in the residence. Application should be made to the Office of the Dean of Devonshire House.

Engineering Society Loan Fund
In 1932 the Engineering Society repaid to the Board of Governors a series of annual grants which, over a period of years, had been made to the society for special purposes. The Board of Governors, appreciating this action, set aside this sum, to be known as the Engineering Society Loan Fund, to provide loans to students of the Faculty of Applied Science and Engineering. The administration of the fund is carried out by a Committee appointed by the Governing Council. The fund is not large, and only small loans can be made to relatively few students.

Sandford Educational Press Loan Fund
The Sandford Fleming Foundation has donated $3,000 to establish a short-term loan fund. The Sandford Educational Press Loan Fund will provide emergency short-term loans of $100 to $200 to Engineering undergraduate students. These loans are interest free for at least ninety days.

The Sandford Educational Press is the textbook publishing division of the Sandford Fleming Foundation and the loan fund was established from the proceeds of sales of its textbooks.

Society of Automotive Engineers, Canadian Section, Loan Fund
The Society of Automotive Engineers, Canadian Section, has established a loan fund of $1,200 in the Faculty of Applied Science and Engineering. Preference is given to students in good scholastic standing and engaged in studies relative to the automotive and aircraft industries, and to students in Fourth, Third and Second Years, in that order.

The William Storrie Memorial Fund
The William Storrie Memorial Fund has been established by Mrs. William Storrie to provide loans to undergraduates in the Civil Engineering program.

The University of Toronto Alumni Loan Fund
This fund comes from subscriptions received originally in 1919 and in succeeding years from graduates for the University and is administered by the University of Toronto Alumni Association.

Loans are available to undergraduate and graduate students enrolled in a full time course at the University, in Second and subsequent years. Funds are available for emergency purposes only.

Particulars may be obtained from The University of Toronto Alumni Association, Alumni House, Willcocks Street, Toronto.