COLLEGE OF GRADUATE STUDIES & RESEARCH

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A. Akkerman (2006)

L. Alexitch (2005) R.T. Alisauskas (2006) B. Allan (2002) A. Allen (2003) M. Altman (2004) A.B. Anderson (2003) D. Anderson (2004) D.W. Anderson (2003) J.F. Angel (2003) K. Ansdell (2006) G.D. Appleyard (2004) K. Arbuthnott (2002) 0.W. Archibold (2003) S. Arimoto (2006) M.T. Arts (2003) K. Ash (2004) N. Ashworth (2006) Z. Baber (2006) L.A. Babiuk (2003) A. Backman (2006) Y. Bai (2005) D.A. Bailey (2003) J.V. Bailey (2006) R.J. Baker (2005) N.N. Bakhshi (2006) R. Balachandar (2005) R.A. Ball (2005) G.M. Bancroft (2004) A.S. Baranski (2005) E.M. Barber (2005) S.M. Barber (2006) S.L. Barbour (2004) B. Barl (2005) A. Barr (2006) W. Barr (2003) A.D. Barth (2005) W.M. Bartley (2002) J.F. Basinger (2006) G.S. Basran (2004) M. Battiste (2003) G. Baxter (2003) A.D.G. Baxter-Jones (2005) M.A. Beavis (2004) T.N. Bebchuk (2005) R.G. Beck (2004) K.W. Belcher (2004) K. Bell (2002) L.S. Bell (2006) R.D. Bell (2006) S.M. Bell (2006) M.L. Benson (2003) S. Berenbaum (2004) A.T. Bergan (2003)

D.J. Bergstrom (2003) J. Bergstrom (2003) S. Berman (2003) C. Bernhardson (2003) C. Berthelot (2003) R.W. Besant (2003) J.R. Bettany (2003) M.G. Bickis (2006) P.M. Bidwell (2003) P.G. Bietenholz (2002) C.L. Biggs (2002) R. Billinton (2004) W. Bishopp (2003) R.B. Blake (2005) B.R. Blakley (2004) J.M. Blondeau (2006) A. Blunt (2003) J.O. Boison (2002) B.S. Bolaria (2003) R.J. Bolton (2004) D. Bond (2003) R. Bone (2004) K. Bonham (2005) P.C. Bonham-Smith (2004) R. Borowsky (2005) G.R. Bortolotti (2003) M. Boulfiza (2006) A.A. Boulton (2004) M Bowden (2005) R.C. Bowen (2004) C. Boyd (2005) S.M. Boyetchko (2003) M.R. Bremner (2003) D. Brenna (2005) P.A. Bretscher (2002) F. Bristol (2003) J.A. Brooke (2005) H.G Brooks (2006) F.B. Brown (2004) W.J. Brown (2006) Y.M.R. Brown (2006) P. Browne (2006) H. Bryant (2003) F. Buchanan (2005) T. Buckwold (2004) J.D. Bugg (2002) N. Buhr (2005) H.J. Bull (2006) R. Bunt (2003) P.J. Burnell (2003) R.T. Burton (2005) R.L. Calder (2003) D.E. Caldwell (2003)

W.G.E. Caldwell (2002) D.C. Campbell (2006) G.L. Campbell (2005) J.I.D. Campbell (2006) J.R. Campbell (2002) H.S. Caplan (2005) C. Card (2002) R.T. Card (2004) S.K. Carey (2006) S. Carlsen (2004) A.P. Carr (2006) L. Carroll (2006) S. Carr-Stewart (2006) T. Carruthers (2006) A.B. Carson (2003) J.A. Carter (2005) A.M. Case (2006) J.D. Cassidy (2002) R.M. Cassidy (2003) N. Caulkett (2005) K. Chad (2006) R.K. Chaplin (2003) B.M. Chartier (2006) C.S.L. Cheah (2006) P.J. Chedrese (2002) J.E. Cheesman (2006) G.A. Cheston (2004) A. Chigogidze (2003) P. Chilibeck (2004) M. Chirino-Trejo (2004) D.P. Chivers (2005) N.A. Chowdhury (2005) D.A. Christensen (2004) G.I. Christison (2004) E.G. Clark (2004) H.A. Clark (2005) R.G. Clark (2004) L. Clarke (2003) M.D. Clarke (2006) H.L. Classen (2005) K.S. Coates (2006) D. Cochrane (2003) D.W. Cockcroft (2004) R.D.H. Cohen (2006) M. Collins (2006) M.R. Conlon (2005) J.B. Conway (2006) J.E. Cooke (2003) R.W. Cooley (2005) K. Cooper-Stephenson (2003) K. Corrigan (2002) J.H. Cota-Sanchez (2005) D. Cotton (2004)

D. Cottreau (2005) M. Cottrell (2002) J.C. Courtney (2003) P.S. Covello (2004) W.L. Crosby (2002) B. Cross (2002) D.J. Crossley (2004) M. Crossley (2005) T.C. Crowe (2006) G. Csapo (2004) J.M. Culp (2006) R.C.C. Cuming (2003) P. Currie (2006) D. Cushman (2003) J.N. Cutler (2006) B.L.F. Daku (2006) A.K. Dalai (2002) C. D'Arcy (2005) J.E. Dart (2003) A.R. Davis (2004) B.A. Davis (2006) G.R. Davis (2002) M. Day (2002) E.B. Dayton (2004) D. de Boer (2006) D. De Brou (2005) E. de Jong (2003) J. DeCoteau (2003) W.E. DeCoteau (2003) D. Degenstein (2005) L.T.J. Delbaere (2003) H.G. Deneer (2005) S. Deng (2005) W.P. Denham (2003) W.B. Denis (2004) M.F. D'Eon (2006) K. Deonandan (2003) M. Desautels (2005) G. DesBrisay (2005) R. Deters (2006) T.B. Deutscher (2006) R. Devon (2004) H. Dhand (2003) H. Dhingra (2003) D.J. Dibski (2005) R. Dick (2005) H.D. Dickinson (2005) G. Dickson (2002) J.R. Dimmock (2005) C.B. Dobni (2006) D.M. Dobni (2006) D.E. Dodds (2004) A.T. Dolovich (2002)

D.L. Domian (2004) G.W. Donnelly (2006) P.C. Dooley (2003) K. Dorsch (2005) J.A. Dosman (2004) J. Doucette (2006) P.M. Dowling (2005) P. Downe (2006) D.T. Drinkwater (2002) M.G. Dube (2005) T. Duke (2005) P. Dwyer (2004) L.E. Dyck (2004) R.F. Dyck (2004) D.L. Eager (2005) J.J. Eberle (2005) C. Echevarria (2002) M. Eckroth (2002) R. Edmonds (2003) D. Edney (2003) P. Elabor-Idemudia (2005) L.J. Elias (2006) J.A. Ellis (2002) A.M. El-Serafi (2004) H.E. Emson (2003) G. Enns (2004) G. Entwistle (2005) A.M. Ervin (2003) A. Estrada (2005) M.S. Evans (2006) M.D. Evered (2004) R.W. Evitts (2006) B. Fairbairn (2004) J. Fang (2005) S.O. Faried (2002) C.S. Farrow (2006) G.R. Farthing (2005) R.A. Faulkner (2006) J.A. Feather (2006) G. Feltham (2005) L.M. Ferguson (2006) J.A. Fiamengo (2005) L.M. Findlay (2003) D.G. Fischer (2003) R.J. Fisher (2003) T.E. Fisher (2006) I.R. Fleming (2006) R. Fleming (2004) P.F. Flood (2003) M.P. Flynn (2006) M. Foldvari (2004) C.M. Foley (2002) D. Forbes (2005)

D. Forsyth (2003) G.W. Forsyth (2003) L. Forsyth (2006) L.C. Fowke (2003) D.B. Fowler (2006) G. Fowler (2003) J.D. Fowler (2006) S. Fowler-Kerry (2002) S. Fox (2003) R.D. Fram (2003) D.G. Fredlund (2003) P.B. Fretz (2003) D.A.P. Fry (2003) M.E. Fulton (2003) K.I. Fung (2003) W.H. Furtan (2004) G. Gable (2006) S.E. Gabriel (2006) A.A. Gajadhar (2003) T. Gambell (2003) R.E. Gander (2005) J. Garcea (2004) R.L. Gattinger (2005) D.J. Gendzwill (2003) F.F.Z. Georges (2005) J.J. Germida (2004) M.E. Gertler (2003) D.A. Gilchrist (2003) J.A. Gillies (2006) C. Gillott (2003) S.A. Gingell (2004) F. Glanfield (2005) A. Gloster (2002) A.H. Goldie (2004) H.W. Gonyou (2006) D. Goodwin (2005) V. Gopal (2003) J.R. Gordon (2006) D.K.J. Gorecki (2004) B.L. Graham (2004) B.H. Grahn (2003) P.R. Grant (2006) W.K. Grassmann (2003) D.M. Gray (2003) G.R. Gray (2006) J. Gray (2006) R.S. Gray (2002) K.L. Green (2006) J.E. Greer (2004) D. Greschner (2004) P.J. Griebel (2006) P. Grochulski (2006) R.C. Grogin (2004)

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S. Hoffman (2004) M. Hojati (2003) F. Holm (2003) C. Holmden (2002) J.N. Hoover (2005) J.A. Hope (2006) L.B. Horne (2003) S.L. Horne (2004) M.E. Horsburgh (2006) M.C. Horsch (2006) M.U. Hosain (2003) E. Howe (2003) L.A. Howe (2005) P.M. Huang (2003) J.W. Hubbard (2003) P. Hucl (2006) A. Hucq (2004) J.J. Hudson (2006) R.G. Hudson (2006) G.J. Huff (2005) G.R. Hughes (2003) P.R. Hull (2002) M.L. Humbert (2005) M. Hug (2003) T.S. Hurst (2004) G.C. Hussey (2002) P.J. Hynes (2005) R. Igarashi (2005) W.M. Ingledew (2003) B. Irvine (2003) G.E. Isaac (2006) D. Ish (2003) J.O. lversen (2002) M.L. Jackson (2006) L.M. Jaeck (2002) K. James-Cavan (2004) S. Jana (2003) B. Janzen (2006) E.D. Janzen (2003) M.M. Jenkins (2005) D. Jiang (2005) D. Jobling (2002) A.M. Jobson (2002) D.D. Johnson (2004) D.H. Johnson (2006) G.E. Johnson (2004) P.A. Johnston (2005) G.A. Jones (2003) R.A.C. Julien (2002) B.H.J. Juurlink (2005) S. Kalagnanam (2005) A. Kalinowski (2005) J. Kalra (2006)

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A. Reese (2005) M.J. Reeves (2003) T. Regehr (2005) R. Regnier (2004) R.S. Reid (2005) D.M.A. Relke (2003) A.J. Remillard (2004) G. Remus (2004) R.W. Renaut (2004) P. Renihan (2004) D.C. Rennie (2004) K.S. Rezkallah (2003) C.S. Rhodes (2003) J.S. Richardson (2004) C. Riddell (2005) J. Rigby (2003) C. Ringness (2003) R.D. Robarts (2004) M. Roberge (2006) G. Robertson (2003) S. Robinson (2004) W.J. Roesler (2005) K.G. Romanchuk (2005) J.T. Romo (2006) K.A. Rosaasen (2006) A.M. Rosenberg (2004) A.R.S. Ross (2006) B.W.C. Rosser (2006) B.G. Rossnagel (2005) G.G. Rowland (2003) S.I. Rubin (2006) K. Russell (2006) A. Ryan (2004) M.S. Sachdev (2004) L.E. Sackney (2004) D.H. Saklofske (2003) F. Saleh (2003) J.E. Salt (2002) R. Sammynaiken (2005) L.M. Samuelson (2004) R.P. Sanche (2003) D.A.R. Sanders (2006) K. Sankaran (2004) C.M. Sargeant (2003) W.A.S. Sarjeant (2003) A. Sarkar (2003) G.E. Sarty (2006) R. Sass (2005) D.M. Saucier (2006) J.E. Sawatzky (2002) V.K. Sawhney (2003) A. Saxena (2005) E.P. Sayrs (2006)

C. L. Schachter (2006) M.P. Scharf (2006) H.B. Schiefer (2003) B. Schissel (2004) A. Schmitz (2005) S.M. Schmutz (2003) K.A. Schneider (2006) G.J. Schoenau (2003) R.A. Schoney (2004) B.T. Schreiner (2003) D.J. Schreyer (2005) V. Schwean (2003) R.A. Schwier (2004) E.H. Scissons (2004) G.J. Scoles (2003) D. Scott (2003) R.I. Scott (2003) G.P. Searcy (2003) G. Seguin-Swartz (2003) T.W. Selover (2002) G. Selvaraj (2003) K.M. Semchuk (2005) N. Senior (2003) P.J. Shand (2006) S.D. Shantz (2006) J. Sharma (2006) R.K. Sharma (2006) S.P. Sharma (2003) J.W. Sheard (2003) L. Shepel (2003) D.P. Sheridan (2006) Y.M. Shevchuk (2003) S. Shewchuk (2003) C.L. Shmon (2005) M.H.K. Shokeir (2004) A.S. Shoker (2002) B.C Si (2006) J. Sibley (2006) R.D. Sider (2005) N. Sidhu (2003) T.S. Sidhu (2006) R. Silerova (2002) E. Simko (2004) B. Singh (2004) J. Singh (2005) M.P. Singh (2002) B.M. Sinha (2004) L.K. Sippola (2002) C.S. Sisodia (2003) L.F. Skinnider (2003) R.P. Skomro (2004) C.W. Slights (2004) W.W.E. Slights (2003)

M.E.G. Smart (2003) B.L. Smith (2004) D. Smith (2004) D.E. Smith (2003) E.G. Smith (2004) M. Smith-Norris (2005) J.E.G. Smits (2002) A. Smolyakov (2005) G. Sofko (2003) A. Sokalski (2003) S. Sokhansanj (2003) K. Solose (2004) C.E. Soteros (2005) D.S. Spafford (2003) G.A. Sparks (2003) B.F. Sparling (2005) K.S. Spink (2003) E.J. Sprigings (2003) R. Srinivasan (2004) V. St. Denis (2002) L.V. St. Louis (2003) R.G. St. Pierre (2005) J.C. Stabler (2003) M.R. Stauffer (2003) D. Stead (2003) T.G. Steele (2002) R.P. Steer (2004) J.S. Steeves (2003) T.A. Steeves (2003) R.A. Stephanson (2004) J.W. Stephenson (2003) L. Stewart (2004) N.J. Stewart (2003) L. Stiffarm (2004) R.P. Stoicheff (2003) W.J. Stolte (2003) J.M. Stookey (2006) G. Storey (2004) D.C. Story (2003) U. Stottmeister (2005) P.V. Sulakhe (2003) D. Sumner (2004) R.J. Sumner (2004) R.G. Sutherland (2004) L.G. Suveges (2006) P.M. Swan (2004) J. Szmigielski (2002) W. Szyszkowski (2002) H. Tabel (2006) L.G. Tabil (2006) K. Takaya (2004) B. Tan (2003) L.K.T. Tan (2003)

K. Tanaka (2005) K. Tanino (2006) G. Tannous (2005) Y. Tao (2003) J.G. Taylor (2002) J.L. Taylor (2005) K.F. Taylor (2004) S.M. Taylor (2006) P.A. Thacker (2005) A.G. Thomas (2002) J. Thompson (2003) R. Thompson (2004) V.A. Thompson (2006) J.A. Thornhill (2004) D.J. Thorpe (2003) J. Thorpe (2005) S.K. Tikoo (2004) D.A. Torvi (2005) H.G.G. Townsend (2005) P.R. Traer (2006) K. Tran (2005) J.P. Tremblay (2003) J.M. Tuchek (2004) R.T. Tyler (2005) E.D. Tymchatyn (2003) P.R. Ukrainetz (2003) S.G. Urguhart (2005) A. van Dinh (2006) F. Van Hesteren (2002) A.G. Van Kessel (2002) K.C.J. Van Rees (2006) A. Vandenberg (2003) L.A. Vandervort (2006) L.M. Vargo (2005) J. Vassileva (2003) R. Venne (2003) V.M.K. Verge (2002) S.P. Verma (2004) R.E. Verrall (2004) J. Vicq (2003) C.L. von Baeyer (2005) M.I Vrbancic (2004) G. Wacker (2004) P.S. Wagner (2006) W.A. Waiser (2006) C.L. Waldner (2004) J.B. Waldram (2006) E.G. Walker (2006) K.D. Walker (2002) F.L. Walley (2006) W.L. Waltz (2004) W. Walz (2006) H. Wang (2005)

H.D. Wang (2005) R. Wang (2003) A. Ward (2006) D.E. Ward (2006) T. Warkentin (2005) R.C. Warrington (2003) L. Wason-Ellam (2003) L.I. Wassenaar (2006) D.R. Waterer (2004) E.H. Waters (2004) L.G. Watson (2004) E.B. Waygood (2003) L.D. Wegner (2005) Y. Wei (2005) J.A. Weil (2006) K.H. West (2004) N.H. West (2004) N.D. Westcott (2005) K. Wetzel (2003) R.C. Wheeler (2003) W.L. Wheeler (2006) C. Wheler (2006) S.M. Whiting (2004) R.E.Y. Wickett (2002) M.L. Wickstrom (2003) K.L. Wiebe (2005) W. Wiegers (2005) R.W. Wilen (2005) A. Williams (2004) D. Williams (2003) K.E. Williams (2004) C. Williamson (2006) R.G. Williamson (2003) P.J Willson (2005) D.G. Wilson (2006) J.N. Wilson (2003) K.A. Wilson (2004) M.R. Wilson (2006) T.W. Wilson (2004) T.B. Wishart (2003) G.A. Wobeser (2003) A. Wollin (2004) A.T. Wong (2003) S. Wong (2002) H. Wood (2003) H.C. Wood (2006) M.R. Woodbury (2004) H. Woodhouse (2006) H. Woolf (2006) J.S. Wormith (2006) L.J. Worobetz (2006) T.L. Wotherspoon (2004) K.E. Wright (2003)

D. Wyman (2002) J. Xiang (2003) C. Xiao (2004) W. Xiao (2003) Q. Xie (2006) R.A. Yaansah (2004) R.A. Yackulic (2004) J.Y. Yager (2002) H. Yang (2005) S. Yannacopoulos (2002) P. Yates (2003) W.D.G. Yates (2005) K. Yong-Hing (2002) P. Yu (2004) G.A. Zello (2002) R.P. Zentner (2005) C. Zhang (2003) X. Zhang (2006) F.A. Zichy (2004) B. Ziola (2004) N. K. Zlotkin (2005) L. Zong (2006)

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J.D. Adjaye, Ph.D., (Syncrude Canada Ltd.) Chemical Engineering (2005)

S.K. Ali, M.B.B.S., (Saskatoon Cancer Centre) Oncology (2003)

R.T. Alisauskas, Ph.D., (Environment Canada) Biology (2006)

B. Allan, Ph.D., (Veterinary Infectious Disease Organization) Veterinary Pathology (2002)

G.D. Appleyard, Ph.D., (Veterinary Pathology) Veterinary Pathology (2004)

K. Arbuthnott, Ph.D., (Department of Psychology, University of Regina) Psychology (2002)

S. Arimoto, Ph.D., (Institute for Fundamental Chemistry, Kyoto) Chemistry (2006)

M.T. Arts, Ph.D., (National Hydrology Research Institute) Toxicology (2003)

J. Asai, Ph.D., (Saskatchewan Accelerator Laboratory) Physics and Engineering Physics (2002)

N. Ashworth, M.Sc., (Physical Medicine and Rehabilitation, University of Alberta) Rehabilitation Medicine (2006)

J.G. Asmundson, Ph.D., (Clinical Research and Development for the Regina Health District) Psychiatry (2004)

M.E. Baca-Estrada, Ph.D., (Veterinary Infectious Disease Organization) Pharmacy (2002)

G.M. Bancroft, Ph.D., (Canadian Light Source) Chemistry (2004)

B. Barl, Ph.D., (Horticulture Science) Plant Sciences (2005)

A. Barr, Ph.D., (National Hydrology Research Institute) Geography (2006)

M. Benmerrouche, Ph.D., (Saskatchewan Accelerator Laboratory) Physics and Engineering Physics (2003)

F. Berruti, Ph.D., (University of Western Ontairo) Chemical Engineering (2005)

M.D. Berry, Ph.D., (Alviva Biopharmaceuticals, Inc.) Psychiatry (2004)

J. Billinton, Ph.D., (Self-employed, retired from University of Saskatchewan) Educational Administration (2004)

R.B. Blake, Ph.D., (Saskatchewan Institute of Public Policy) History (2005)

G.W. Block, Ph.D., (Calder Centre) Psychiatry (2006)

J.M. Blondeau, Ph.D., (Royal University Hospital) Microbiology and Immunology (2006)

M. Boehm, Ph.D., (Centre for Studies in Agriculture, Law and the Environment) Soil Science (2003)

J.O. Boison, Ph.D., (Canadian Food Inspection Agency) Chemistry (2002)

T.K. Bollinger, D.V.Sc., (Veterinary Pathology) Veterinary Physiological Sciences (2004)

A.A. Boulton, Ph.D., (Alviva Biopharmaceuticals, Inc.) Psychiatry (2004)

S.M. Boyetchko, Ph.D., (Agriculture and Agri-Food Canada, and Saskatoon Research Centre) Applied Microbiology and Food Science (2003)

N.W. Braroe, Ph.D., (Massachusetts Institute of Technology) Anthrolopology and Archaeology (2005)

H.G Brooks, Ph.D., (Government of Saskatchewan) Agricultural Economics (2006)

H. Bryant, Ph.D., (Royal Saskatchewan Museum) Geological Sciences (2003)

W.G.E. Caldwell, Ph.D., (University of Western Ontario) Geological Sciences (2002)

M. Campos, Ph.D., DVM, (self-employed) Veterinary Microbiology (2005)

L. Carroll, Ph.D., (Dept. of Public Health Sciences) Psychology (2006)

C.K. Chan, Ph.D., (AECL) Civil Engineering (2002)

R.N. Chibbar, Ph.D., (Plant Biotechnology Institute) Plant Sciences (2005)

R.N. Chibbar, Ph.D., (Plant Biotechnology Institute) Biochemistry (2006)

E.G. Clark, Ph.D., (Prairie Diagnostic Services) Veterinary Pathology (2004)

R.G. Clark, Ph.D., (Canadian Wildlife Service) Biology (2004)

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A. Coode, Ph.D., (Central Canada Potash Division) Civil Engineering (2005)

L.J.M. Cormode, Ph.D., (Self-employed) Geography (2003)

B.E. Coulman, Ph.D., (Agriculture and Agri-Food Canada, Saskatoon Research Centre) Plant Sciences (2004)

P.S. Covello, Ph.D., (National Research Council Canada) Biochemistry (2004)

W.L. Crosby, Ph.D., (Plant Biotechnology Institute) Biology (2002)

B. Cross, M.V.Sc., (Animal Resources Centre) Veterinary Pathology (2002)

J.M. Culp, Ph.D., (National Water Research Institute) Toxicology (2006)

P. Currie, Ph.D., (Royal Tyrell Museum of Palaeontology) Geological Sciences (2006)

B.A. Davis, Ph.D., (Alviva Biopharmaceuticals) Psychiatry (2006)

M.S. de Jong, Ph.D., (Canadian Light Source) Electrical Engineering (2006)

K. Dorsch, Ph.D., (University of Regina) Kinesiology (2005)

M.D. Drew, Ph.D., (Prairie Feed Resource Centre) Animal and Poultry Science (2006)

M.G. Dube, Ph.D., (National Water Research Institute) Toxicology (2005)

.G. Dyck, Ph.D., (Canadian Museum of Civilization) Anthrolopology and Archaeology (2003)

J.J. Eberle, Ph.D., (Canadian Museum of Nature) Geological Sciences (2005)

G. Enns, Ph.D., (Youth and Family Therapy Team) Educational Psychology and Special Education (2004)

M. Erlandson, Ph.D., (Agriculture and Agri-Food Canada, Saskatoon Research Centre) Applied Microbiology and Food Science (2004)

A. Estrada, Ph.D., DVM, (Animal Biotechnology Centre) Veterinary Microbiology (2005)

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M.S. Evans, Ph.D., (National Hydrology Research Institute) Biology (2006)

R.D. Farrell, Ph.D., (Saskatchewan Centre for Soil Research) Soil Science (2003)

J.A. Feather, M.A., (Community Health and Epidemiology) Community Health and Epidemiology (2006)

J. Feddes, Ph.D., (University of Alberta) Agricultural and Bioresource Engineering (2004)

P.R. Fobert, Ph.D., (Plant Biotechnology Institute) Biology (2005)

D. Forsyth, Ph.D., (Canadian Wildlife Service) Toxicology (2003)

A.A. Gajadhar, Ph.D., (Canadian Food Inspection Agency) Veterinary Microbiology (2003)

C.G. Gallagher, M.B., MRCPI, FRCP(C), (Trinity College Dublin Medical School) Medicine (2002)

F.F.Z. Georges, Ph.D., (Plant Biotechnology Institute) Biochemistry (2005) N.S. Gerrard, Ph.D., (Saskatoon District Health) Community Health and Epidemiology (2004)

T.H. Gibson, Ph.D., (Western Heritage Services Inc.) Anthrolopology and Archaeology (2003)

D.L. Godson, Ph.D., (Veterinary Microbiology) Veterinary Microbiology (2004)

H.W. Gonyou, Ph.D., (Prairie Swine Centre) Animal and Poultry Science (2006)

R.H. Goodman, Ph.D., (Imperial Oil Resources Limited) Enviromental Engineering (2004)

R.B. Gordon, Ph.D., (Alvin Buckwold Child Development Program) Education of Exceptional Children and Special Education (2002)

S. Greenberg, Ph.D., (University of Calgary) Computer Science (2004)

M.C.J. Grevers, Ph.D., (University of Calgary) Soil Science (2002)

P.J. Griebel, Ph.D., (Veterinary Infectious Disease Organization) Veterinary Microbiology (2006)

P. Grochulski, Ph.D., (Canadian Light Source) Biochemistry (2006)

P. Gu, Ph.D., (Department of Mechanical Engineering) Mechanical Engineering (2005)

P.A. Hackett, Ph.D., (National Research Council of Canada, Ottawa) Chemistry (2005)

R.G. Haennel, Ph.D., (University of Regina) Medicine (2005)

J. Halmo, Ph.D., (Self-employed) Music (2003)

M. Hamilton, Ph.D., (Defense Research Establishment Suffield) Pharmacology (2004)

M.G. Hanna, Ph.D., (Royal Saskatchewan Museum) Anthrolopology and Archaeology (2003)

R. Harland, Ph.D., DVM, (Novartis Animal Health Canada Inc.) Veterinary Microbiology (2005)

D.H. Hay, Ph.D., (Child and Youth Services) Psychology (2003)

J.V. Headley, Ph.D., (National Hydrology Research Institute) Civil Engineering (2002)

W. Heber, Ph.D., (Saskatchewan Indian Federated College) Anthrolopology and Archaeology (2003)

A. Hedayat, Ph.D., (Bregma International) Mechanical Engineering (2005)

D.D. Hegedus, Ph.D., (Agriculture and Agri-Food Canada, Saskatoon Research Centre) Applied Microbiology and Food Science (2003)

S.M. Hemmingsen, Ph.D., (National Research Council) Microbiology and Immunology (2003)

T.Y. Henderson, Ph.D., (Department of Philosophy) Philosophy (2004)

E.P. Hoberg, Ph.D., (Biosystematics and National Parasite Collection Unit, USDA) Veterinary Microbiology (2005) K.A Hobson, Ph.D., (Environment Canada) Biology (2004)

A. Holt, Ph.D., (Alviva Biopharmaceuticals, Inc.) Pharmacology (2006)

J.C. Hudson, Ph.D., (RCMP Forensic Laboratory) Toxicology (2005)

R. Igarashi, Ph.D., (College of Arts and Science) Physics and Engineering Physics (2005)

P.G. Jefferson, Ph.D., (Semiarid Prairie Agricultural Research Centre) Animal and Poultry Science (2004)

D. Jiang, Ph.D., (Canadian Light Source) Physics and Engineering Physics (2005)

A.M. Jobson, Ph.D., (Stanley Consulting Group, Ltd.) Enviromental Engineering (2002)

M.H. Johnston, Ph.D., (Saskatchewan Research Council) Soil Science (2006)

P.A. Johnston, Ph.D., (Royal Tyrrell Museum of Palaeontology) Geological Sciences (2005)

R.G. Kachanoski, Ph.D., (University of Alberta) Soil Science (2006)

R.E. Karamanos, Ph.D., (Western Cooperative Fertilizers Ltd. (Westco)) Soil Science (2004)

J. Kastelic, Ph.D., (Agriculture and Agri-Food Canada Research Centre, Lethbridge) Large Animal Clinical Sciences (2006)

R. Katz, Ph.D., (Saskatchewan Indian Federated College) Psychology (2005)

W.A Keller, Ph.D., (National Research Council) Plant Sciences (2002)

M.E. Kerr, M.V.Sc., (Prairie Diagnostic Services) Veterinary Pathology (2004)

J.D. Knight, Ph.D., (Saskatchewan Centre for Soil Research) Soil Science (2003)

L.M. Kozak, Ph.D., (Centre for Land & Biological Resources Research) Soil Science (2005)

S. Krakowka, Ph.D., (Veterinary Biosciences, Ohio State) Veterinary Microbiology (2004)

F.V. Kuhlmann, Ph.D., (Mathematics and Statistics) Mathematics and Statistics (2003)

S. Kumar, Ph.D., (Wavecom Electronics) Electrical Engineering (2003) T.K. Kyser, Ph.D., (Queen's University)

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Educational Administration (2004)

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Agriculture and Food) Animal and Poultry

J.R. Lawrence, Ph.D., (National Hydrology

Research Institute) Applied Microbiology

Provincial Health Laboratory) Pathology

S.P. Lemay, Ph.D., (Prairie Swine Centre Inc.) Agricultural and Bioresource

D. Lehotay, Ph.D., (Saskatchewan

Geological Sciences (2005)

and Food Science (2002)

Engineering (2002)

Science (2006)

(2005)

M.C. Loewen, Ph.D., (Plant Biotechnology Institute) Biochemistry (2006)

D. Lydiate, Ph.D., (Agriculture and Agri-Food Canada, Saskatoon Research Centre) Plant Sciences (2002)

J.D. MacNeil, Ph.D., (Canadian Food Inspection Agency) Toxicology (2005)

D.D. Maenz, Ph.D., (Prairie Feed Resource Centre (Canada) Inc.) Animal and Poultry Science (2004)

J.D Mahon, Ph.D., (National Research Council) Plant Sciences (2005)

S.S. Malhi, Ph.D., (Agriculture and Agri-Food Canada Research Station, Melfort) Soil Science (2004)

A. Mandal, M.D., (University of Florida) Pharmacology (2005)

G.P. Marchildon, Ph.D., (Deputy Minister to the Premier and Cabinet Secretary) Agricultural Economics (2002)

R.J. Marles, Ph.D., (Brandon University) Biology (2004)

P. Marsh, Ph.D., (National Hydrology Research Institute) Geography (2002)

P. Martin McGuire, Ph.D., (Federation of Saskatchewan Indian Nations) Native Studies (2005)

T.A. McAllister, Ph.D., (Agriculture and Agri-Food Canada) Animal and Poultry Science (2005)

D.R. McCreary, Ph.D., (Regina Health District) Psychology (2004)

D.R. McDiarmid, Ph.D., (National Research Council of Canada, Ottawa) Physics and Engineering Physics (2002)

G. Melville, Ph.D., (Saskatchewan Research Council) Enviromental Engineering (2003)

A.R. Mermut, Ph.D., (Saskatchewan Institute of Pedology) Soil Science (2003)

J. Middleton, M.N., (Parkridge Centre) Nursing (2004)

K.K. Midha, Ph.D., (Self-employed) Pharmacy (2005)

B.J. Milne, Ph.D., (The University of Calgary) Chemical Engineering (2002)

R.E. Morlan, Ph.D., (Canadian Museum of Civilization) Anthrolopology and Archaeology (2005)

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G.K. Mutwiri, Ph.D., (Veterinary Infectious Disease Organization) Toxicology (2006)

S.L. Myers, M.V.Sc., (Prairie Diagnostic Services) Veterinary Pathology (2004)

J.L. Nanson, Ph.D., (Alvin Buckwold Centre) Psychology (2005)

M. Ngeleka, Ph.D., DVM, (Prairie Diagnostic Services) Veterinary Microbiology (2004)

B.A. Nicholson, Ph.D., (Brandon University) Anthrolopology and Archaeology (2005)

K. Noels, Ph.D., (University of Alberta) Psychology (2005) A. Obenaus, Ph.D., (Medical Imaging) Anatomy and Cell Biology (2002)

B. O'Connor, M.Vet.Sc., (Prairie Diagnostic Services) Veterinary Pathology (2005)

S.K. O'Leary, Ph.D., (Universersity of Regina) Electrical Engineering (2006)

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K. Prasad, Ph.D., M.D., (College of Medicine) Physiology (2005)

L.D. Presse, Ph.D., (Regional Psychiatric Centre (Prairies)) Psychology (2006)

T. Prowse, Ph.D., (National Hydrology Research Institute) Agricultural and Bioresource Engineering (2002)

T.D. Prowse, Ph.D., (National Hydrology Research Centre) Geography (2004)

A.F. Prugger, Ph.D., (Potash Corporation of Saskatchewan Inc.) Geological Sciences (2005)

G.F. Rakow, Ph.D., (Agriculture and Agri-Food Canada Research Station, Saskatoon Research Centre) Plant Sciences (2005)

R. Ranganathan, Ph.D., (Saskatchewan Research Council) Chemical Engineering (2006)

T. Rezansoff, Ph.D., (Self-employed) Civil Engineering (2003)

C.J. Richardson, Ph.D., (Royal University Hospital) Pharmacy (2005)

R.D. Robarts, Ph.D., (National Water Research Institute) Applied Microbiology and Food Science (2004)

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R. Sammynaiken, Ph.D., (Saskatchewan Structural Sciences Centre) Chemistry (2005)

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E.V. Sampaio, Ph.D., (Department de Energia Nuclear UFPE) Soil Science (2005)

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A Shuaib, FRCPC, (University of Alberta) Medicine (2004)

R.D. Sider, Ph.D., (Dickinson College, Pennsylvania) History (2005)

N. Sidhu, Ph.D., (Saskatoon Cancer Centre) Physics and Engineering Physics (2003)

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J.E.G. Smits, Ph.D., (Toxicology Centre) Toxicology (2002)

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D. Stead, Ph.D., (University of Exeter) Geological Sciences (2003)

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U. Stottmeister, Ph.D., (UFZ-Umweltforschungzentrum Leipzip-Halle GmbH) Enviromental Engineering (2005)

M.C.T. Tai, Ph.D., (Parkview Presbyterian Church) Religious Studies (2003)

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D.C. Taylor, Ph.D., (Plant Biotechnology Institute) Plant Sciences (2005)

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A.G. Thomas, Ph.D., (Agriculture and Agri Food Canada, Saskatoon Research Centre) Plant Sciences (2002) P.A. Thomas, Ph.D., (Toxicology Centre/Self-employed) Toxicology (2004)

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A.G. Van Kessel, Ph.D., (Animal Biotechnology Group) Animal and Poultry Science (2002)

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E.H. Waters, M.V.Sc., (Prairie Diagnostic Services) Veterinary Pathology (2004)

K.H. West, Ph.D., DVM, (Veterinary Diagnostic Services) Veterinary Microbiology (2004)

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E.E. Wheaton, M.Sc., (Saskatchewan Research Council) Geography (2002)

W.L. Wheeler, M.A., (Saskatchewan Indian Federated College) Native Studies (2006)

C. Williamson, , (Department of Computer Science) Computer Science (2006)

P.J Willson, Ph.D., (Veterinary Infectious Disease Organization) Microbiology and Immunology (2005)

G.W. Wilson, Ph.D., (University of British Columbia) Civil Engineering (2002) T. Wolf, Ph.D., (Agriculture and Agri-Food

Canada) Civil Engineering (2004)

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Centre) Psychology (2002)

Geological Sciences (2002)

Geological Sciences (2006)

Centre) Psychiatry (2003)

Pathology (2005)

S. Wong, Ph.D., (Regional Psychiatric

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R.P. Zentner, Ph.D., (Agricultureand Agri-Food Canada Research Station, Lethbridge) Agricultural Economics (2005)

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PROFESSIONAL AFFILIATES*

*Denotes non-members of faculty.

W.J. Arnold, (Macneill Clinic), Psychology (2004)

M.R.L. Bantle, (Bantle Engineering Research), Agricultural and Bioresource Engineering (2004)

G. Barnhart, (University of Saskatchewan International), Political Studies (2004)

R. Barsi, (Clifton Associates Ltd.), Civil Engineering (2003)

R.E. Bell, (Saskatoon Health District), Psychology (2003)

S.V. Boechler, (Prairie Therapists and Trainers Inc.), Psychology (2004)

H.A. Brenneman, (Self-employed), Psychology (2004)

R. Brown, (Saskatchewan Hospital), Psychology (2005)

C.J. Butler, (Department of Educational Administration), Educational Administration (2004)

R.A. Carr, (POS Power Plant), Agricultural and Bioresource Engineering (2005)

J.V. Cross, (Philom Bios), Chemical Engineering (2004)

S. Darcangelo, (Regional Psychiatric Centre), Psychology (2004)

R. Devrome, (R.J. Devrome & Associates), Educational Administration (2004)

L. Duvall, (Self-employed), Art and Art History (2005)

L.S. Ebbesen, (Saskatchewan Heart Health Program), Community Health and Epidemiology (2005)

C. Edwards, (Cameco Corporation), Chemical Engineering (2003)

J. Elias, (Self-Employed), Psychology (2005)

J. Gerstmar, (Meewasin Valley Authority), Enviromental Engineering (2003)

D. Gleave, (retired from Sask. Public School System), Educational Administration (2004)

M. Gloutney, (Stanley Consulting Group Ltd.), Biology (2002)

R.B. Gordon, (Alvin Buckwold Child Development Program), Psychology (2004)

D. Hawley, (Sask. Educational Leadership Unit/housed in Ed Adm), Educational Administration (2004)

S.K. Hillis, (Royal University Hospital), Psychology (2004)

A.P. Hubberz, (University of Saskatchewan), Political Studies (2004)

C. Hwang, (City of Saskatoon), Enviromental Engineering (2003) D. Jackson, (Saskatoon City Hospital), Psychology (2004)

D. Jurgens, (Mental Health Centre), Psychology (2004)

K.B. Kawchuk, (Saskatchewan Indian Federated College, Saskatoon), Political Studies (2002)

R. Kinzel, (Kinzel, Cadrin and Associates), Psychology (2003) D. Lake. (Saskatoon District Health).

Psychology (2004)

L. Leonard, (self-employed, sessional), Educational Administration (2004)

S. Lewis, (Access Consulting Ltd.), Political Studies (2006)

W. Nelson, (Self-Employed), Psychology (2005)

B.W. Noonan, (St. Paul's RCSSD #20), Educational Administration (2002)

G.A. Padbury, (Agriculture and Agri-Food Canada), Soil Science (2005)

G.C. Pancyr, (Self-Employed), Psychology (2004)

J.L. Pando, (Self-employed), Economics (2005)

H. Parris, (Self-employed), Educational Foundations (2005)

H.M. Philibert, (Dept. of Veterinary Pathology), Veterinary Pathology (2004)

P.W.B. Phillips, (Dept. of Agricultural Economics), Political Studies (2005)

H.A. Punshon, (Department of Educational Administration), Educational Administration (2004)

R.G. Schwab, (Meewasin Valley United Church), Political Studies (2002)

J. Smits, (Dept. of Veterinary Pathology), Veterinary Pathology (2004)

D. Soveran, (Saskatchewan Research Council, Process Devel.), Civil Engineering (2005)

D.A.E. Spalding, (University of Saskatchewan), Geological Sciences (2005)

G. Stevens, (Self-Employed), Psychology (2003)

D. Storer, (Potash Corporation of Saskatchewan, Inc.), Chemical Engineering (2003)

L.C. Tollefson, (Agriculture Canada, Prairie Farm Rehab Admin), Agricultural and Bioresource Engineering (2004)

M. Vandergoot, (Child and Youth Services), Psychology (2005)

J. Wassermann, (Prairie Agricultural Machinery Institute), Agricultural and Bioresource Engineering (2006)

D.C. Winkelman-Sim, (Self-Employed), Animal and Poultry Science (2004)

THE UNIVERSITY OF SASKATCHEWAN

The University of Saskatchewan was established in 1907 by an Act passed by the Legislative Assembly of the Province. The Campus is located on the South Saskatchewan River at the edge of the City of Saskatoon.

Saskatoon is a city with a population of 209,600 located on a rolling type of prairie land which is dotted with aspen bluffs. The agriculture in the region about Saskatoon includes the production of livestock and dairy products as well as of grains. The utilization of large deposits of oil, natural gas and potash in the Province is rapidly providing a source of income equal in importance to agriculture.

January, with an average daily temperature of about -18°C is the coldest month. July, with an average daily high of about 25°C is the warmest month. Most winters are characterized by alternate spells of cold and mild weather. While minimum temperatures during the cold periods may drop to -30°C and lower, daytime temperatures during the warm periods may rise above 0°C. Summer temperatures seldom rise above 30°C, and the nights are often cool and invigorating. The average annual precipitation is about 38 cm. with about one-quarter as snow. Both winter and summer are noteworthy for the number of days with bright sunny weather; few years have less than 2000 hours of bright sunshine.

Travel between Saskatoon and other parts of Canada and the United States can be done quickly and conveniently by air. Hardsurface, all-weather highways connect Saskatoon to most places of interest in Saskatchewan and the neighbouring Provinces and States.

The University of Saskatchewan offers numerous fields of specialized study through its school and colleges. They are in the Colleges of Agriculture, Arts and Science, Commerce, Dentistry, Education, Engineering, Graduate Studies and Research, Kinesiology, Law, Medicine, Nursing, Pharmacy and Nutrition, Veterinary Medicine, the School of Physical Therapy, and the Extension Division.

Most colleges offer graduate training to the Master's level (LL.M., M.A., M.Agr., M.B.A., M.C.Ed., M.Ed., M.Eng., M.F.A., M.Math., M.Mus., M.N., M.P.Acc., M.Sc., M.Vet.Sc.). Training to the Ph.D. level is available in the majority of the fundamental disciplines offered by the College of Arts and Science, and most of the professional colleges. Programs of study and research depend on the special interests of the staff and facilities that are available. Interdisciplinary programs are available in many areas. Programs leading to a Postgraduate Diploma are available in some departments, groups, or divisions.

The Royal University Hospital is located on campus and a large successful research park, Innovation Place, is on the north side of the campus. Numerous private research companies and government agencies reside in Innovation Place.

Several other research intensive organizations reside on campus. National Research Council - Plant Biotechnology Institutes; Agriculture and Agri-Food Canada - Research Station, Health of Animals Laboratory, and Prairie Farm Rehabilitation Administration; Environment Canada - Prairie and Northern Wildlife Research Centre of the Canadian Wildlife Service and the National Hydrology Research Institute (Innovation Place); Regional Psychiatric Centre; Saskatchewan Research Council; Protein, Oil & Starch (POS) Pilot Plant.

The University has a number of specialized research groups and facilities. For a full listing, please see *Research Centres*, *Divisions, and Institutes* in the *Calendar*.

Degree enrolment totalled 19,481 students in the 2001-02 Regular Session and of this number 1,848 were doing graduate work.

University residence accommodation is available. Rooms with board, and selfcontained suites or apartments can usually be obtained within walking distance of the university or close to bus lines. Parking facilities are available on the campus for students with cars. Meals or lunches can be obtained on campus.

Most graduate degrees granted by the university require a substantial amount of research and the submission of a satisfactory thesis based on the research. For this reason prospective students should consult, either personally or by correspondence, with the department in which they intend to work about research facilities and supervision prior to making formal application for admission. Requests for scholarships, teaching and research assistantships should also be addressed to the departments.

GENERAL INFORMATION

APPLICATION PROCEDURES

General information on admissions:

 Applications for admission should be submitted on the appropriate admission forms. These applications are first submitted to the department or program the applicant is interested in studying with.

 Applicants other than graduates of the University of Saskatchewan must arrange for official transcripts of their academic records from each institution attended to be sent directly to the Head of the department in which they wish to work.

 At least three confidential letters of recommendation are to be sent directly to the department. These letters should be from professors or others acquainted sufficiently with the applicant's training and experience to express an opinion on the applicant's ability to undertake graduate training.

 All forms for the application process are available from the departments or from the CGSR office (50 Murray Building) or from the CGSR web site (www.usask.ca/cgsr/).

Some departments require applicants to take the Graduate Record Examination, National Program for Graduate School Selection and to obtain a satisfactory score on the aptitude test, or the Advanced Test, or both. The departments concerned will inform the prospective applicants of this condition. Arrangements for these tests should be made early in the year by

students who expect to start graduate work the following September. Inquiries about the tests should be addressed to G.R.E., Educational Testing Service, P.O. Box 6000, Princeton, New Jersey, 08541-6000.

An application is submitted to the department in which the applicant wishes to work for a recommendation concerning acceptance or non-acceptance. Applicants will be advised of department or college decision. If the department recommends acceptance, the application is referred to the College of Graduate Studies and Research Office for further action. Nonacceptance of an applicant often depends on considerations other than those listed in the section on Requirements for Admission. These include availability of facilities for the type of research which the applicant wishes to pursue and of a member of the graduate faculty with time to supervise the proposed research. Applicants should not apply to more than one department at the same time. Successful applicants receive a letter of acceptance signed by the Dean or the Admissions Officer. Any special conditions pertaining to the student's admission are noted in the letter.

Applicants who need financial support through scholarships, teaching assistantships and fellowships, research assistantships, etc., in order to undertake graduate work should correspond with the Head of the department in which they wish to study or the professors whom they anticipate will supervise their research work.

APPLICATION FEE

Applicants for admission or re-admission are required to submit a non-refundable application fee of \$50. This should be in the form of a certified cheque or money order, in Canadian funds only, made payable to the University of Saskatchewan.

APPLICATION FOR ADMISSION DEADLINES

The College of Graduate Studies and Research normally admits applicants to commence in September of each year. However, some academic units may consider applicants to commence in January or May. Some departments and colleges have established their own deadlines for application which are earlier than the following University deadlines. Applicants are reminded that applications for admission must be received by February 1st if they wish to be considered for University-administered financial support beginning the following September. The College of Graduate Studies and Research has developed scholarship funding for some departments. Contact the department in which you are interested or the College of Graduate Studies and Research for further information. University deadlines for submission of complete applications for admission to departments or colleges are as follows

 Applications for admission to regular programs when previous post secondary study was done at a Canadian or U.S. university: 2 months prior to date of expected first registration

• Applications for admission to regular programs when previous post-secondary study was done outside North America: 4 months prior to date of expected first registration

• Applications for admission to special case Master's programs when previous post-secondary study was done at a Canadian or U.S. university: *5 months prior to date of expected first registration*

• Applications for admission to special case Master's programs when previous post-secondary study was done outside North America: *6 months prior to date of expected first registration*

• Applications for admission to special case Ph.D. programs: 6 months prior to date of expected first registration

It is expected that departments and colleges will be able to process complete applications for admission in no more than four weeks, after which time they will either advise the candidate that their application could not be accepted or send a recommendation for admission, along with all necessary documentation, to the College of Graduate Studies and Research.

GRADUATE ACADEMIC SCHEDULE FOR 2002-2003

2002 April 1

Final date for submission of an Application to Graduate for 2002 Spring Convocation

April 1

Final date for Master's and Ph.D. oral examinations and submission of all documents required for 2002 Spring Convocation

April 30

Final date for submission of theses for students wishing to graduate at 2002 Spring Convocation

May 1

Last day to register for Spring and Summer Session without penalty

May 10

Graduate Faculty meeting

May 17

Last day to add or change Spring and Summer first-term and two-term classes

May 31

Spring Convocation August 30

Final date for Master's and Ph.D. oral examinations and submission of all

documents required for 2002 Fall Convocation

September 3

Final date for submission of an Application to Graduate for 2002 Fall Convocation

September 18

Final date for submission of theses to bindery for students wishing to graduate at 2002 Fall Convocation

October 26

Fall Convocation for Graduate Candidates

2003 April 1

Final date for submission of an Application to Graduate for 2003 Spring Convocation

April 1

Final date for Master's and Ph.D. oral examinations and submission of all documents required for 2003 Spring Convocation

April 30

Final date for submission of theses for students wishing to graduate at 2003 Spring Convocation

May 30

Spring Convocation (tentative date for Graduate Candidates)

ADMISSION REQUIREMENTS

The requirements for admission to the College of Graduate Studies and Research are as follows:

(1) Applicants must hold an Honours baccalaureate from a college or university of acceptable standing, and equivalent to the degree at this university that is required for admission to the proposed type of graduate work, or have training equivalent to that required for such a degree. An applicant with a three-year Bachelor's degree following Senior Matriculation or four years of study following Junior Matriculation is not eligible for admission. Applicants holding a four-year Bachelor's degree of this university may be admitted to the college if they have had sufficient specialization in their chosen field to require less than 18 credit units to meet the required level of specialization.

(2) Applicants must show promise of ability to pursue satisfactorily advanced study and research, as judged by their previous scholastic records or otherwise.

(3) Applicants should have adequate preparation to enter upon graduate study in their chosen field. Applicants who fail to meet this requirement but meet requirements 1 and 2 may still be admitted provided deficiencies can be rectified by taking some courses either prior to or in parallel with graduate courses.

(4) The language of instruction and examination at the University of Saskatchewan is English. Therefore, applicants for admission whose first language is not English must present evidence of proficiency in English prior to initial registration. The approved tests of English proficiency are the Test of English as a Foreign Language - TOEFL (minimum score - 550[paper based] or 213 [computer based]), Canadian Test of English for Scholars and Trainees - CanTEST (minimum score - Band 4.5), International English Language Testing System - IELTS (minimum score - Band 6) and the Michigan English Language Assessment Battery - MELAB (minimum score - 85). Test scores must be forwarded directly to Admissions, College of Graduate Studies and Research, by the testing centre, to be received no later than the date of initial registration. TOEFL scores are only valid for 2 years after the test date. Language

Proficiency tests are only valid for two years after the testing date. Prospective students may also fulfill the English proficiency requirement through successful completion of the ESL program (Level 50: Advanced) at the Centre for Second Language Instruction at the University of Saskatchewan.

(5) Depending on the research being done, graduate students may be asked to sign an agreement to hold confidential certain information or data which will be made available to them as part of their research training or because of an employment relationship with a particular project.

(6) Prospective graduate students who are full-time employees of the university should seek information on the university's policy in this area, available at the College of Graduate Studies and Research.

Note: Meeting the minimum English proficiency requirement does not assure acceptability to programs in the College of Graduate Studies and Research.

SASKATCHEWAN HEALTH BENEFITS FOR STUDENTS

Students who are permanent residents of the province of Saskatchewan are eligible to receive benefits under all of the Saskatchewan Health Insurance Plans. All permanent residents of Saskatchewan should be in possession of a current Saskatchewan Health Services card.

Students from other provinces or territories in Canada who are present in Saskatchewan for educational purposes are not eligible for benefits under the Saskatchewan Health Plans. Such students should maintain Health Care Insurance from their home province while attending university in Saskatchewan

International students, who are admitted to Canada through a Canadian Immigration Student Authorization and who take up residence in Saskatchewan, will need to take steps to insure provincial health insurance coverage. To be covered, they must establish residence in Saskatchewan before the first day of the third month following their arrival in Canada. To establish residence, they must register with the Health Insurance Registration Office. Once this registration is complete, the benefit period of Health Insurance will normally be for a maximum of the period of their Student Authorization. The benefit period may be extended by presenting an authorization for a student extension from Canadian Immigration.

International students, who have previously resided in another Canadian province and who move to Saskatchewan, are not covered by the Saskatchewan Health Plan for a period of ninety days. Some of the provinces from which a student might transfer will continue their Health Insurance support program for these three months and others will not. Students who are not covered by a provincial plan must acquire private insurance for this period of time. *All* international student Office regarding their eligibility for the

Saskatchewan Health Plan. Application forms are available in the International Student Office (Room 60, Place Riel Student Centre).

Family members accompanying students are subject to the same health care considerations.

GRADUATE STUDENTS' ASSOCIATION (GSA)

As the official voice of graduate students, the Graduate Students' Association (GSA) represents your interests within the university, locally, provincially and nationally, by lobbying the Faculty, university administration and many levels of governments with respect to funding, representation and academic affairs. Currently the GSA holds two seats on the University Council, one seat on Senate, seven seats on Graduate Council and is represented on most of the committees and subcommittees of University Council and Graduate Council.

At the national level, the GSA is a voting member of the Canadian Graduate Council (CGC).

All Graduate students registered in the College of Graduate Studies and Research are members of the GSA. Members pay a fee upon registration which is used by the GSA to achieve its stated goals.

Members are represented through a council system which comprises an Executive (President, VP's Academic, External, Finance, Internal and a Past Executive Member), and representatives from a variety of departments known as Course Councils. Together the Executive and Course Councils form the General Council.

GSA HEALTH AND DENTAL PLANS

Full time graduate students are entitled to coverage under an extended health benefits program administered by the GSA. This is a mandatory plan and provides for 80% reimbursement of a variety of benefits. In September of 1995, a managed Dental Care Plan was implemented. The plan is mandatory for all full-time graduate students and provides 50%–100% coverage for most dental work, with 100% coverage for one annual checkup per year. With Managed Dental Care, a network of participating dentists agree to perform all dental work in the defined plan.

Students have the option of enrolling dependents in both the Health and Dental plans, or opting out of the program if coverage is held under another extended benefits plan (Note: Provincial plans are not extended benefits plans).

The deadline to either opt out of the program or include dependents, is four weeks from the date of registration in classes in the fall, winter, or spring and summer session terms.

Further information is available from the Health Plan Administrator, GSA Office, telephone: (306)966-8471.

CLASSIFICATION OF ADMITTED APPLICANTS

Applicants admitted to the College of Graduate Studies and Research are classified into one of several groups, depending on their preparation for graduate work and the type of graduate work which they propose to do.

FULLY-QUALIFIED APPLICANT

Applicants who have an Honours B.A. or B.Sc. degree from this university, or a baccalaureate with Distinction from a professional college of this university, or equivalent standing from another university, and who intend to proceed with graduate work closely related to that for which they received their baccalaureate fall directly into this category. Students from this university, or any other university with equivalent standards of grading, who have a cumulative weighted average of at least 70% during the last two years or equivalent of their undergraduate study are usually included in this group. Special case admissions require a 75% average.

CONDITIONALLY-QUALIFIED APPLICANT

Applicants qualified for admission to the College of Graduate Studies and Research who require additional undergraduate training in certain areas in order to proceed with the graduate courses and research in their selected field. Applicants in this category may take some of the graduate courses for which they have the prerequisite training in parallel with the required undergraduate courses. These applicants should not anticipate meeting the residence requirements for a graduate degree or diploma in the minimum time established by the College of Graduate Studies and Research. These applicants may also be required to pay additional fees depending on the number of courses required in order to become fully-qualified candidates for a graduate degree or diploma.

PROBATIONARY APPLICANT

Applicants whose academic gualifications are difficult to assess, or whose qualifications are marginal for admission to the graduate program they wish to follow. Applicants in this category may be required to take a certain number of preparatory courses to improve their qualifications. In this case they will be required to pay additional fees. The student's status is reviewed after a specified amount of academic work is completed. If progress is satisfactory the department in which the student is working or the Advisory Committee may recommend to the College of Graduate Studies and Research that the student proceed in a fully-qualified category.

POSTGRADUATE DIPLOMA PROGRAM APPLICANT

Applicants who are increasing their professional competence by completing the courses required for a postgraduate diploma. Only those applicants accepted into this category with the qualifications for admission to a degree program may apply for admission to the degree program before completing the requirements for the postgraduate diploma. Applicants admitted in the Postgraduate Diploma program must have a cumulative weighted average of at least 65% during the last two years of undergraduate study.

EXCHANGE GRADUATE APPLICANT

Students who are registered in a degree program at another university and who are engaged in course or research work at the University of Saskatchewan to be credited toward their degree program. Admission in this category requires the recommendation of the Dean of Graduate Studies and Research (or designate) of the institution at which the student is registered for a degree, showing that the work undertaken at the University of Saskatchewan is approved for credit at that institution. There are not normally any additional admission requirements.

The University of Regina students intending to take a course at the University of Saskatchewan should use the Saskatchewan Universities Graduate Agreement (SUGA) request form available through the Faculty of Graduate Studies and Research, The University of Regina and from the College of Graduate Studies and Research at the University of Saskatchewan.

Full-time, fully qualified graduate students at other universities in Western Canada may take courses at the University of Saskatchewan which are required for their program of studies but not available at their home university (normal maximum 6 credit units). A Western Dean's Agreement Authorization Form must be obtained and signed at the home university, then submitted to the host department at the University of Saskatchewan.

NON-DEGREE APPLICANT

Applicants qualified to take selected graduate courses, but not working towards a postgraduate diploma or degree. Courses taken on a non-degree basis do not necessarily reduce the admission requirements or program requirements should the student decide subsequently to apply to a degree program at the University of Saskatchewan. Those who wish to take graduate courses on a non-degree basis must meet regular admission requirements (obtain form GSR105 Permission to take a Graduate Course on a Non-degree Basis from the College of Graduate Studies and Research Office or it can be found at www.usask.ca/cgsr/). A maximum of six credits may be taken as a non-degree student.

THE UNIVERSITY-INDUSTRY PARTNERSHIP PROGRAM

Faculty members and adjunct professors in many colleges at the University of Saskatchewan are engaged in research which receives funding from government or social agencies, affiliated institutes and private business or industry sources. This research often involves collaboration with researchers in government laboratories, affiliated institutes, the private sector or other locations. As an integral part of their academic program, graduate students in Master's or Ph.D. programs are frequently involved in such research and receive funding support through it as research assistants. Graduate students involvement in this research may also take the form of employment in the course of the academic program or subsequent to it.

Affiliated with the university are many research institutes and centres. Adjacent to the campus is Innovation Place, one of Canada's most successful research parks. In addition, many links have been formed with private companies who are interested in placements of graduate students with appropriate qualifications.

The University of Saskatchewan is an active participant in the NSERC Industrial Postgraduate Program. This program, along with other forms of financial support, allows the university to offer funding to a number of graduate students who participate in the University-Industry Partnership program. Interested students should inquire at the department in which they plan to register. In many cases cooperative research projects involving the participation and support of graduate students will begin with a formal agreement signed by all concerned parties. The agreement will specify the role and responsibilities of the graduate student researcher, will indicate financial and material support to be provided to them, and will provide a statement regarding the ownership of any intellectual property used while doing the research or resulting from it. In all cases, students' academic rights will be protected by such agreements.

INTERDISCIPLINARY PROGRAMS

The College of Graduate Studies and Research encourages re-alignment of traditional disciplines into new patterns, crossing department and college boundaries where this will foster new areas of learning. To facilitate this the College of Graduate Studies and Research provides opportunities for students to develop INDIVIDUAL INTERDISCIPLINARY PROGRAMS leading to the PGD, M.A., M.Sc. and Ph.D. degrees. Information on the academic requirements for these degrees is provided under designated sections in the Graduate Studies and Research section of this calendar.

Students in interdisciplinary graduate programs are not restricted by traditional academic boundaries.

Many departments and colleges have graduate programs that allow sufficient flexibility to students to complete an interdisciplinary program while enjoying affiliation with an established academic unit. Individual Interdisciplinary Graduate Programs are not intended to compete with or replace these programs.

The individual interdisciplinary graduate program is administered by the College of Graduate Studies through the Interdisciplinary Studies Committee. Students interested in graduate interdisciplinary programs are advised to consult with the Chair of the Interdisciplinary Studies Committee for information on program requirements and on the procedure to be followed in developing their program proposal.

The Supervisor and Advisory Committee are responsible for working with the student to produce the application and program proposal. The application should include : program supervisor, members of advisory committee, course descriptions including complete details on INT D 898 - Special Topics and INT D 990 - Seminar courses. detailed research proposal identifying the expected outcome of project and approval the Ethics Committee, sources of support financial and physical, and any other details the Chair or Committee may require). In the case of the INT D 990 - Seminar course, students are expected to participate in an annual "Seminar Day" sponsored by the Interdisciplinary Studies Committee, as well as participate in specific seminars designated by the student's supervisor. The program proposal must identify proposed courses to be taken at other institutions and sources of funding to support related travel. The completed program proposal will be reviewed by the Chair of the Interdisciplinary Studies Committee, and if acceptable, will be submitted to the Interdisciplinary Studies Committee for approval. To be considered "interdisciplinary", the proposed program must integrate course work and research into a concise program that is not available within the traditional academic setting. As well, the proposed program should not attempt to provide a graduate studies

opportunity within a discipline where such graduate studies opportunities are not currently available.

Depending on the individual interdisciplinary graduate program being pursued, various specialized courses are available. See Interdisciplinary Studies in the Courses section of the *Calendar*.

POSTGRADUATE DIPLOMA REQUIREMENTS

Programs leading to a Postgraduate Diploma are available in a number of departments, and colleges without departments. They are designed particularly for people who have been away from university for some time and wish to broaden their knowledge at the graduate level on subjects peculiar to their professional interests. Full-time attendance for a regular academic session (September to April inclusive), or its equivalent, may be required by the department. Research is not a basic part of such programs, although candidates in some fields may be given the opportunity to become acquainted with research techniques.

The general regulations applicable to Postgraduate Diploma Programs are:

• For admission to a Postgraduate Diploma program, students must have a Bachelor's degree from a professional college or a Bachelor of Arts degree with specialization in some subject or discipline comparable to that required for a B.A. (Honours) degree from this university, and a cumulative weighted average of at least 65% in each of the final two years of their undergraduate program. Some departments and professional colleges may require professional experience and credit for particular undergraduate courses related to the proposed program.

 A Postgraduate Diploma program consists of 30 credit units, at least 18 of which are normally required of a Master's candidate in the same field of specialization.

• Students and departments are jointly responsible for insuring that the department sends the appropriate documents to the College of Graduate Studies and Research Office when program requirements have been completed.

• Upon submission of the GSR 300.4 form, the Diploma is awarded to a student who passes all the courses of an approved program with a grade of at least 60% in each course and an average of at least 65% for all courses.

 A person with a GPA of at least 70% admission who has been admitted fully qualified to a Diploma program and attained a grade of 70% or higher in each of the courses acceptable for a Master's degree may be transferred at any time (upon departmental recommendation and CGSR approval) to a Master's program and obtain the degree by completing the remaining requirements, e.g., thesis, project or additional courses, provided that the time limits for a Master's program are respected. Additional fees will apply.

 A person who has received a Postgraduate Diploma may be admitted subsequently to a Master's program. Relevant course work completed to fulfill the Diploma program requirements may be taken into account in determining the requirements for the Master's program. Regular Master's admission and minimum program requirements are applicable. Students who did not meet admission requirements for a Master's program at the time of admission to the Diploma program must complete at least 6 credit units at the graduate level, in addition to the project or thesis, as part of the Master's program. There may be additional course requirements, depending upon the pertinence, level and currency of the Diploma course work. The amount of course work required will be determined on an individual basis through recommendation of the department and approval of the College of Graduate Studies and Research.

• All requirements for a Postgraduate Diploma must be completed within a 5-year time period. This time is measured from the date of registration in the first course work which applies to the Postgraduate Diploma program.

MASTER'S DEGREE REQUIREMENTS

MASTER'S DEGREE WITH THESIS

A student enrolled for graduate work in a department of the Colleges of Agriculture, Engineering, Medicine and Veterinary

GRADUATE STUDIES & RESEARCH

Medicine becomes a candidate for an M.Sc. degree in the discipline designated by the name of the department. A student enrolled in a department of the College of Arts and Science usually becomes a candidate for an M.A. degree in the discipline designated by the name of the department, if the baccalaureate for admission is a B.A. degree; an M.Sc. degree, if a B.Sc. degree. Special conditions may apply for admission to the Master's program and to the course requirements in Business Administration, Continuing Education, Education and Law. These are mentioned in the sections describing the courses which are offered.

Consult specific programs for their minimum number of credit unit requirements for the degree in which the student is working. Other requirements are a thesis on a subject permitting the student to make some contribution to knowledge, and seminars, colloguia and related activities as the student's department may require. Other Master's degrees with thesis which are available are: M.F.A., M.B.A., M.C.Ed., M.Ed., LL.M., M.Mus., M.N., and M.P.Acc. Prospective students interested in these degrees should consult the relevant section in the Calendar for course and program requirements. The thesis work for a Master's degree seldom takes less than one-half year, and is usually carried out in parallel with the course work

After an applicant has been admitted to the College of Graduate Studies and Research, the principal department submits, on the student's behalf, a recommended program of study and research. This should be done as soon as possible on forms available from the Dean, and not later than twelve months, after the time of first registration.

If an applicant has been admitted as a candidate for a Master's degree, subject to the satisfactory completion of selected preparatory courses either prior to or in parallel with the required graduate courses, the preparatory courses are designated as such on the program of study. In such cases, the student should not anticipate completion of the requirements for award of the degree in less than two years of residence during regular sessions, or the equivalent. A qualifying examination on the field of specialization may be required by a department either as a means of evaluating the student's ability to proceed with work for the degree or for the award of the degree

Research for the thesis and its preparation is usually supervised by a member of the department to which the student is attached. An Advisory Committee is appointed, consisting of at least three members, including the Department Head or designate who acts as chairperson, the research supervisor and other members as deemed appropriate. If the student's work for the degree involves other departments, the Advisory Committee includes the student's research supervisor and representatives of the departments concerned. The Committee is responsible for periodic reviews of the candidate's progress toward the degree and must meet at least annually for this purpose. The Chair of the Advisory Committee will report on the progress of the student to the Dean

of Graduate Studies and Research once annually. A report indicating unsatisfactory progress will result in further action being taken by the Dean. The role of the Advisory Committee may be filled by a graduate committee of the department.

MASTER'S DEGREE WITH PROJECT

Project programs leading to the M.Agr., M.B.A., M.C.Ed., M.Ed., M.Eng., M.Math., M.Mus., M.N., M.P.Acc., M.Vet.Sc., and to the M.A. degrees in Economics and Sociology are also available. These degrees are intended to serve the needs of students who wish to obtain advanced knowledge in a specialized field, but who do not require traditional research training. All project degree programs include as a requirement the project course 992. In most programs the project course 992 is in addition to the usual 30 credit units required. Other special conditions are mentioned within the course descriptions section.

After an applicant has been admitted to the College of Graduate Studies and Research, the principal department submits on the student's behalf a recommended program of study and research. This should be done as soon as possible on forms available from the Dean, and not later than twelve months, after the time of first registration.

SPECIAL CASE PROGRAMS

Departments which do not have an established Master's degree program may be allowed, with the permission of the Dean and the Academic Committee of the College of Graduate Studies and Research, to accept a student for a Special Case Master's program of studies. Rules for such programs are available from the Dean of Graduate Studies and Research and the respective departments.

RESIDENCE

In general the residence requirement can be met by full-time residence at this university for one regular academic session, starting in September and ending in April, or by the equivalent in Spring and Summer Session. For full residence within this or equivalent periods, candidates must carry at least the minimum number of graduate credit units for their specific program of study, in addition to registration in 990 (where required) and in 994 (Master's with thesis). A student who is notably deficient in general training, or in specific preparation required by each department as prerequisite to the graduate work for which the degree is to be awarded, should expect a longer period of residence to obtain the degree.

Students registered in a "Special Case" Master's program must complete a minimum of two academic sessions as fulltime students in the department or unit to which the program is attached.

TIME LIMIT

Candidates for Master's degrees are expected to complete their work with reasonable continuity over a period not exceeding five years. This time is measured from the date of first registration in a course credited toward the program.

TRANSFER CREDITS

Graduate work of high quality done in a recognized graduate school elsewhere and coming within the five-year time limit may be accepted. Such credits will be transferred only after the student has established a satisfactory record in residence here for at least one-half of a regular academic session, and then only if the department concerned recommends to the Dean of Graduate Studies and Research for approval of the transfer of such credits. Normally a student should expect to complete at least 60% of the program requirements at this university. Work already applied toward another degree cannot be accepted. Transferred credit will not reduce the residence requirement at this university.

ACADEMIC STANDARDS

Students taking courses required to remove deficiencies in their general training or for preparation prerequisite to the chosen field of graduate work must obtain a cumulative weighted average of at least 70% in these courses. A minimum of 70% is required in each undergraduate course. Students must obtain 60% in each graduate course required specifically for the degree and a cumulative weighted average of 70% for all their courses in this category. Under exceptional circumstances, on recommendation of the department, and with the approval of the Dean of Graduate Studies and Research, a student may be permitted to write a supplemental examination in a graduate course for which a grade of less than 60% was obtained or an undergraduate course for which a grade of less than 70% was obtained. With permission of the Dean, students may repeat the course to raise their standing, or substitute an additional course recommended by the department.

If, in the opinion of the Advisory Committee and the department concerned, a student is not making reasonable progress with any aspect of the program, a recommendation may be made to the Dean that the student be required to discontinue as a candidate for the degree. The Dean will take prompt and appropriate action.

ETHICS

Ethics approval must be submitted to the College of Graduate Studies and Research prior to the defence for a thesis-based program and prior to application to convocate for a project.

THESIS AND PROJECT REQUIREMENTS

A thesis or project presented in partial fulfillment of the requirements for the degree must:

• Deal with a specific topic related to the major field.

• Demonstrate ability on the part of the candidate to do independent study and investigation.

• Be written in good scholarly style and conform to the requirements of a style manual approved by the department.

• Comply in mechanical features with specifications as described in the *Guide For the Preparation of a Thesis.*

It is expected that the student will follow the department regulations and the advice of the Supervisor and the Advisory Committee in developing the thesis or project proposal and in establishing whether the thesis or project is ready for examination. In exceptional circumstances the student may request that the Dean of Graduate Studies and Research arrange for an examination without prior departmental approval. The rules for such an examination are determined by the Dean in consultation with the department.

The adequacy of the project is decided by an examining committee consisting of the Supervisor, other members of the Advisory Committee and other persons as appropriate. Departments and colleges are required to inform students in a timely fashion about the criteria to be used and the procedures to be followed in the examination of master's project work.

Every thesis must go to oral defence. The adequacy of the thesis is decided by an examining committee. The committee will consist of the Department Head or designate, who chairs the examination, the supervisor, at least one member who served on the Advisory Committee, and the external examiner from another department of the university, who has not been a member of the student's Advisory Committee. The department may recommend the appointment of additional examiners. The examining committee shall be appointed from the College Faculty by the department or departments in consultation with the Dean. The thesis supervisor may not serve as the chair of the thesis oral examination. The character of the oral examination is decided upon by the Committee, but in general the examination is limited to work done by the candidate for the thesis and to knowledge of matters directly related to it. At the conclusion of the examination, the Committee decides whether the thesis work of the candidate and the subsequent defence of it meet the requirements for the degree. The Committee's decision is reported to the Dean on forms available from the College of Graduate Studies and Research Office.

It is the responsibility of the student who may have any disability that could interfere with his/her conduct or ability to respond to questioning at an oral defence, to reveal the extenuating circumstances in sufficient time prior to the defence to allow the Examining Committee and the College of Graduate Studies and Research to take measures to mitigate the situation at the oral exam. The student must inform his/her Supervisor or Graduate Chair, who in turn must inform the College of Graduate Studies and Research Office of any potential problems.

The External Examiner represents the Dean and shall provide the Dean with a written report following the conclusion of the examination. A form for this purpose is available from the College of Graduate Studies and Research Office. The External Examiner shall be appointed by the Dean prior to the thesis examination and shall not have been associated with the preparation of the thesis in any way. The Dean or designate verifies that all program requirements are met before approval of the External Examiner and permission to proceed to defence. Where the External Examiner does not share the majority view, (whether it is a yes or no vote) the examination shall be adjourned and the Dean will review the situation and establish appropriate procedures to resolve the matter.

The period between the submission of the examination copies of a Master's thesis and the date of the examination is left to the discretion of the student's department. After the Advisory Committee has released the thesis for external examination, the graduate chair shall notify the College of Graduate Studies and Research. The College requires three weeks from the receipt of this notification until the date of the defence. Students are expected to make required revisions within the time period determined by the department. Final dates for oral defences, submission of documentation and bound copies of theses are found in the Graduate Academic Schedule in this section. No exceptions to these dates will be made

COPIES OF THE THESIS

Three bound copies of the thesis in final form must be supplied by the candidate to the department to which the candidate is attached. A copy must reach the College of Graduate Studies and Research Office by the appropriate deadline established for Spring or Fall Convocation. The remaining copies are placed in the department files and given to the candidate's research supervisor for reference purposes. The first copy is catalogued and placed in the University Library, if the mechanical features meet with the approval of the Dean and the Librarian. Otherwise, it is returned to the department which shall require the candidate to make recommended changes The Guide For the Preparation of a Thesis is available at www.usask.ca/cgsr/

COPYRIGHT AND SUBSEQUENT USE OF THESES AND PROJECTS

The author of a thesis or project claims copyright on the title page. As a condition for the award of a degree, the student is required to sign a form giving permission to the University Library to make the thesis available for inspection and to the supervisor of the research and to the department in which the research was done to copy and to circulate the thesis for scholarly purposes only, and to make use of material and ideas included in the thesis in the preparation of papers for publication. Where circumstances warrant, theses may be withheld from circulation for up to 12 months.

RECOMMENDATION FOR AWARD OF DEGREE

The department or departments concerned must file a Recommendation for Award of the Degree with the Dean on forms for this purpose, available at the College of Graduate Studies and Research Office. It must show how the candidate has met the residence requirements, list the courses to be credited specifically for the degree (including transferred credits) and the exact title of the thesis. The title shown on the thesis cover must be identical to the title which appears on the recommendation form for the award of the degree. The recommendation for the award of the degree must be received in the College of Graduate Studies and Research Office on or before the date, available from the office or under the section "Graduate Academic Schedule for 2002-2003", established in relation to Convocation. If the recommendation is approved by the College of Graduate Studies and Research, the student's name will be forwarded to the Office of the Registrar for inclusion in the Convocation Program.

DOCTOR OF PHILOSOPHY DEGREE REQUIREMENTS

A student who receives this degree must have demonstrated proficiency in some broad subject of learning and ability to initiate and evaluate work in this field. Furthermore, the student must have shown the ability to work independently in the chosen field and must have made an original contribution of significance to the advancement of knowledge. The technical requirements stated or implied below are minimum requirements for all candidates for the degree.

ADMISSION

Only an applicant who is fully qualified for admission to postgraduate work at this university and for starting on some particular field of study and research is admitted to a Ph.D. program. This normally means that the applicant will already have completed a recognized Master's program in a field which is relevant to the proposed Ph.D. program of study.

An applicant who is deficient in background training or in courses prerequisite to scholarly work in the chosen field of study and research or who holds a Master's degree whose academic level is in doubt cannot be admitted as a fully qualified candidate for a Ph.D. degree. Such an applicant may be admitted to the College of Graduate Studies and Research for the purpose of removing these deficiencies (see Classification of Admitted Students), but the time spent in doing so can seldom be counted toward the residence requirement for the Ph.D. degree. Applicants holding a Master's degree , the equivalence of which is difficult to assess, will be permitted at the time of admission to register only as probationary students in a Ph.D program or as a Master's student. After no less than one year and on the recommendation of the department, a student may be considered by the College of Graduate Studies and Research Office for transfer to fully-qualified status in a Ph.D. program if the qualifying examination has been successfully completed.

After an applicant has been admitted to the college, the principal department submits on the applicant's behalf a recommended program of study and research for approval by the college. This should be done as soon as possible and not later than twelve months after the time of admission. The form to be submitted by the department or college on the applicant's behalf lists the courses required to meet the academic requirements for the degree, the particular

field of research, the student's research supervisor and members of the Advisory Committee (see below, Supervision), and any other requirements peculiar to the department or college in which the student will be working. At least 6 credit units at the 800 level are required for a student with a recognized Master's degree in the same field of specialization.

TRANSFER FROM MASTER'S TO PH.D.

Transfers from Master's to Ph.D. should take place after the first year and no later than the end of the second year of the Masters Program.

SUPERVISION

The selection of a supervisor should be completed by mutual agreement among student, supervisor, Head of the Department, or the Dean in colleges without departments, and the Dean of Graduate Studies and Research. This selection should take place as quickly as possible, never later than the second annual registration. The supervisor must be a faculty member of the College of Graduate Studies and Research and should be familiar with the rules and procedures of the department, the College of Graduate Studies and Research and those of the university. Both student and supervisor are responsible for ensuring that all College of Graduate Studies and Research and departmental regulations and requirements are observed and met.

The work of each student is coordinated by an Advisory Committee. This Committee consists of the Head of the Department or designate who acts as Chair, or the Dean in colleges without departments, who acts as Chair, the student's supervisor and three or four additional members from the principal department and related departments selected because of their knowledge of the proposed research field. One member must be from a department other than the principal one. If the student's work for the degree is cross-disciplinary, the Advisory Committee should have representatives from each of the departments involved. In consultation with the Dean, persons from other universities or from non-University laboratories and groups may be invited to serve on the Committee because of their specialized knowledge of the research field. Such persons must have received formal approval from the Dean. The Dean of Graduate Studies and Research is an ex officio member of the Committee.

The Advisory Committee serves to advise the student and to periodically review progress being made in preparing the thesis proposal, developing appropriate methodology, carrying out research and writing the thesis. To facilitate these reviews, the student will submit a written progress report on the research project at least once every twelve months through the research supervisor. The supervisor is responsible for distributing a copy of this report to each member of the Advisory Committee. The Committee may require the student to give an oral progress report to explain further and describe the research in progress. The Committee may recommend changes and additions to the student's program and changes to the research project. The Chair of the Advisory

Committee will report on the progress of the student to the Dean of Graduate Studies and Research once annually. A report indicating unsatisfactory progress will result in further action being taken by the Dean.

SPECIAL CASE PROGRAMS

Departments who do not have an established Ph.D. degree program may be allowed, with the permission of the Dean of Graduate Studies and Research and the Ph.D. Committee of the College, to accept a student for a Special Case Ph.D. program of studies. Rules for such programs are available from the College of Graduate Studies and Research Office and the respective departments.

RESIDENCE

To meet the minimum residence requirements, a candidate for the Ph.D. who holds a recognized Master's degree in a suitable field must be registered as a fulltime student for two regular academic sessions, or the equivalent, while actively engaged in academic work as prescribed by the department. Such work will comprise courses, seminars and research. The program of study for which credit for residence is to be earned is recommended by each student's Advisory Committee and departmental Graduate Chair, and approved by the College of Graduate Studies and Research.

Students who transfer from a Master's program to a Ph.D. program without completing the Master's program may be allowed to count course work completed during the period of registration in the Master's program if the courses taken are deemed relevant and at a suitable level for the Ph.D. program. The minimum residence requirements for such transfer students is three regular academic sessions beyond the attainment of the Bachelor's degree Students must be registered as full-time students, or the equivalent, during this time. Students transferring from a Master's program are required to complete a minimum of two regular academic sessions in residence as Ph.D. candidates, regardless of the time in residence completed at the Master's level.

All interpretation regarding residence credit for a student will be made by the Dean of Graduate Studies and Research (or designate) on the advice of the Chair of the student's Advisory Committee. The place of residence during the Ph.D. program is normally the University of Saskatchewan Written permission from the Dean is required if students plan to study or do research elsewhere during the residence period. Following the residence period students may continue their research at the place of their choice, in consultation with their supervisor and Advisory Committee. However, at any time during the program, students may be required to spend their time at the University of Saskatchewan.

TIME LIMIT

A candidate for the Ph.D. degree is expected to complete the work with reasonable continuity over a period not exceeding six years. This time is measured from the date of first registration in the first work credited toward the program.

TRANSFER CREDITS

Graduate work of high quality done in a recognized graduate school elsewhere may be accepted for credit at this university Except in special circumstances, transferred credits will not reduce the minimum residence requirement, but may reduce the amount of course work to be done. In all cases at least six credit units of course work at the graduate level must be done at the University of Saskatchewan, unless otherwise specified by the individual program. Credits are transferred only after the student has established a satisfactory record in residence here for at least one year. Students required by their Advisory Committee to take courses at another university will receive both course credit and residence credit upon satisfactory completion of such courses.

ACADEMIC STANDARDS

Students are expected to complete with distinction all work in the courses included in their program of studies. Any grade below 70% is unsatisfactory. The Advisory Committee will review such grades and make a recommendation to the College of Graduate Studies and Research concerning the action to be taken. The Advisory Committee will also recommend appropriate action to be taken regarding any student whose progress in the research project or any other component of the Ph.D. program is deemed unsatisfactory. Academic standards applied will be those prevailing in the national and international academic community. Upon recommendation by the Advisory Committee and with approval from the Dean of Graduate Studies and Research, a student may be required to discontinue at any time from the program for failure to achieve and maintain satisfactory progress.

LANGUAGES

The Advisory Committee may require the candidate to demonstrate ability to read publications, related to the candidate's special field of study, in one or more languages other than English.

Successful completion of a course in a language (other than English) recommended by an Advisory Committee usually meets the minimum requirements for a reading knowledge of a foreign language. This language requirement may be met by a course, or courses, taken at another university, or by knowledge of the language acquired in other ways. In such cases, supporting evidence must be submitted to the appropriate language department at this university. The language department may set a special examination. The decision of the department is final in such cases.

PRELIMINARY OR QUALIFYING EXAMINATION

Students must satisfy the department by written or oral examination, or by both, that they have the potential to obtain sufficient knowledge of their chosen general field of study to proceed toward candidacy for the Ph.D. degree. Responsibility for this examination may be assigned to the Advisory Committee in cases where several departments are involved. Normally this examination is administered within the first year, preferably within the first four months, of the student's program. The results of this examination are likely to have a significant impact on the program of study developed for the student. The standard which a student must obtain to pass the qualifying examination is at the discretion of the department or the Advisory Committee, as the case may be. A student failing an examination for the first time is permitted a second qualifying examination. A second failure automatically disqualifies the student from further work for the Ph.D. degree. This failure may be appealed to the Ph.D. Committee on substantive or procedural grounds. The results of all qualifying examinations must be reported to the College of Graduate Studies and Research Office

The thesis examination for the award of Master's degree at this or other recognized universities, may, at the discretion of the department and the College of Graduate Studies and Research, be accepted in lieu of the Ph.D. qualifying examination.

The Ph.D qualifying examination must already have been passed at a suitable level before consideration will be given to recommendations for transfer from a Master's to a Ph.D program.

COMPREHENSIVE EXAMINATION AND CANDIDACY

The comprehensive examination covers a broad aspect of the appropriate discipline and may be in written and/or oral form. This examination is usually on topics cognate to the candidate's field of research and is used as a means of judging whether the individual has a mature and substantive grasp of the discipline as a whole. A comprehensive knowledge of the subject will not only help to validate the Ph.D. student as an expert in the general field of choice but will also complement research activity in the specific area under investigation. Normally this examination is scheduled after the student has completed all requirements except the doctoral thesis.

Only upon successful completion of the Comprehensive examination at an appropriate time during the program is a student permitted to continue scholarly activity towards the Ph.D. degree. The Comprehensive may be repeated once with the permission of the Dean of Graduate Studies and Research. The results of all Comprehensive examinations must be reported to the College of Graduate Studies and Research Office. A second failure will result in the student being required to withdraw from the program. This failure may be appealed to the Ph.D. Committee on substantive or procedural grounds.

THESIS

The thesis, based upon original investigation, must demonstrate mature scholarship and critical judgement on the part of the candidate, as well as familiarity with tools and methods of research in the candidate's special field. To be acceptable, it must be a worthwhile contribution to knowledge, and warrant publication in

GRADUATE STUDIES & RESEARCH

whole or in part. It must comply with specifications described in the *Guide For the Preparation of a Thesis.*

Thesis preparation involves a long-term commitment through the stages of preparing a research proposal, completing a literature review, developing methodology, carrying out research and writing the results. Throughout this process the student will maintain contact with the supervisor, as well as the Advisory Committee. When, in the opinion of the student and the supervisor, the work is virtually complete and ready for defence the student will submit a draft of the thesis, substantially in its final form, to the supervisor. The supervisor will review the thesis, making any appropriate suggestions to the student and will then submit it to the Advisory Committee. It is the student's responsibility to make available the number of copies needed by the Advisory Committee. When the Advisory Committee has agreed that the manuscript is ready for examination the candidate will receive permission to make the final copies required for the Examining Committee. The period between the submission of the examination copies of a Ph.D. thesis and the date of the examination should be at least four weeks

The Examining Committee consists of at least six persons, as follows: the External Examiner, the supervisor, three members of the Advisory Committee (at least one of whom is from another academic unit), and the Department Head, or designate, who will chair that part of the defence devoted to questioning the candidate.

Permanent members of the candidate's department and of related departments may be invited to attend the examination. The Dean of Graduate Studies and Research or designate will chair the Examining Committee. A recommendation, which shall provide the Dean with a minimum of three suitable persons from whom the Dean may select an External Examiner, is made by the Department Head. The Dean invites the External Examiner. All program requirements are verified by the Dean or designate before the invitation is extended to the External Examiner. The External Examiner shall not have been associated with the preparation of the thesis in any way and shall have no conflict of interest regarding the student or the supervisor on any aspect of the research itself.

When the thesis is ready for defence, two unbound copies are submitted to the College of Graduate Studies and Research for distribution to the External Examiner and Chair of the Defence. All committee members must also receive an unbound copy. These are circulated by the Head of the Department to the other members of the Examining Committee and such other members of the department as time permits.

The Ph.D. thesis defence, which is an oral examination, is usually scheduled three to four weeks after the thesis has been submitted to the External Examiner. A candidate who anticipates formal award of the degree at a particular Convocation must ensure that two copies of the thesis, suitable for examination, are taken to the

College of Graduate Studies and Research Office in sufficient time to permit the examination process to be completed prior to the deadlines established by the College of Graduate Studies and Research.

A Dissertation Summary is distributed to the Examining Committee at the time of the examination. It is the responsibility of the candidate in consultation with the research supervisor to prepare the Dissertation Summary and related material and to submit it to the Dean seven working days prior to the oral. Students are advised to consult with the College of Graduate Studies and Research Office on this matter at least one month prior to the exam.

It is the responsibility of the student who may have any disability that could interfere with his/her conduct or ability to respond to questioning at an oral defence, to reveal the extenuating circumstances in sufficient time prior to the defence to allow the Examining Committee and the College of Graduate Studies and Research to take measures to mitigate the situation at the oral exam. The student must inform his/her Supervisor or Graduate Chair, who in turn must inform the College of Graduate Studies and Research of any potential problem.

A brief evaluation of the Ph.D. thesis must be submitted by the External Examiner to the Dean of Graduate Studies and Research indicating that the thesis examination should take place as scheduled. This evaluation must be in the hands of the Dean or designate before the examination takes place.

After the thesis examination, a certification form stating the Committee's decision and signed by members of the Committee, is given to the Dean, or designate, who is present at the examination.

Where the Committee's decision is not unanimous, the majority view will prevail provided that the External Examiner shares the majority view. Where the External examiner does not share the majority view, (whether it is a yes or no vote) the examination shall be adjourned and the Dean will review the situation and establish appropriate procedures to resolve the matter. Unless the examination is adjourned for such a reason, the decision of the Examining Committee is final.

It is normal for the Examining Committee to require at the time of the examination that revisions be made to the thesis before final submission. The Examining Committee will establish procedures and name the person(s) responsible for ensuring that the revisions are carried out completely. Candidates are expected to make the revisions promptly. Failure to do so could jeopardize successful completion of the dearee.

Following the defence the External Examiner will submit a full written report to the Dean. In most cases this report may be made available to candidates and departments, upon request.

The candidate must supply the College of Graduate Studies and Research Office with one bound and one unbound copy of the thesis. In addition the candidate must also supply three bound copies to be distributed as follows: one to the candidate; one for the research supervisor and one for the departmental files. The College of Graduate Studies and Research Office will arrange for the microfilming of the thesis by the National Library of Canada, for the publication of the abstract in the journal Dissertation Abstracts, and for the storage of the original copy of the thesis. Students are responsible to reimburse the college for microfilming costs.

The regulations concerning copyright and subsequent use of a thesis are the same as for a Master's thesis (see applicable section on Requirements for Master's Degrees).

PUBLICATION

The university does not require the publication of doctoral theses other than in microfilm by the National Library of Canada and University Microfilms International Each thesis is expected to include material acceptable for publication in scholarly journals of the field in which the candidate has done the research. Each candidate as a condition for award of the degree must sign two forms, one giving permission to circulate microfilm copies of the thesis; the other, permission to the University Library to make the thesis available for inspection and to the research supervisor and department to distribute copies of the thesis and to use materials and ideas therein in scholarly publications, due recognition being given in all cases to the author of the thesis and to the University of Saskatchewan.

RECOMMENDATIONS FOR AWARD OF DEGREES

Prior to the thesis defence, the Advisory Committee is responsible for establishing that the candidate has met all other requirements for the award of the degree, as specified in department and College of Graduate Studies and Research regulations and indicated on the student's approved program of studies: residence, Qualifying examination, courses credited for the degree (including transfer credits). Comprehensive examination and any other requirements. The Advisory Committee is responsible for determining when the thesis is ready to go to defence. The written statement to this effect must contain the exact title of the thesis, as it appears on the thesis.

All necessary paperwork provided at the defence must be received in the College of Graduate Studies and Research Office on or before the date, available from the college office, or under the section "Graduate Academic Schedule for 2002-2003", established in relation to Convocation.

TIME LIMIT

Special permission may be granted for a four-month extension in a Postgraduate Diploma, Master's or Ph.D. program. It is the student's responsibility to make a written application to the department for a time extension stating the reason for extension and setting out a timeline for completion of the degree requirements. The department will forward the student's letter with a recommendation to the College of

Graduate Studies and Research Office. Students are advised in writing by the Dean of Graduate Studies and Research of acceptance or rejection of this recommendation. Only in most unusual circumstances will a further four-month extension be granted.

DOCTORATE DEGREE FOR SCHOLARLY WORK

Members of Convocation of the University of Saskatchewan or faculty members may apply or may be nominated for the award of an earned D.Sc. or D.Litt. based on the high standard of their published works and related international stature in their particular fields of research. Persons wishing to apply or to nominate an individual for such an award should write to the Dean of Graduate Studies and Research for a copy of the regulations concerning the subsequent evaluation of the applicant's scholarly work.

REGISTRATION AND FEES

Master's (thesis) and Ph.D. students are assessed tuition under the Graduate Tuition Model. Postgraduate Diploma, Master's of Business Administration and Master's (project) students are assessed tuition based on the regular tuition schedule.

GRADUATE TUITION MODEL MASTER'S (THESIS) AND PH.D. STUDENTS

Definitions *Graduate Academic Year:*

The 12-month period from September 1 to August 31.

Graduate Term:

Each of 3 four-month registration periods (September-December and January-April in the Regular Session; and May-August in the Spring and Summer Session).

Fixed Graduate Program Fee (FGPF):

A tuition amount set annually by the Board of Governors for each of the Master's with Thesis program and the Ph.D. program, to be assessed in equal installments, normally during the first 3 full-time terms of registration in the Master's with Thesis program and in the first 6 full-time terms of registration for the Ph.D.

Standard Term Tuition:

The amount of the installment of the FGPF assessed in a graduate term.

Continuing Registration Tuition:

A fixed tuition amount assessed for each Graduate Term of registration following the term in which the final installment of the FGPF has been assessed.

MASTER'S (THESIS STUDENTS)

Full-time Master's (Thesis) students must pay *three* Standard Term Tuition installments and then the Continuing Registration Tuition until the end of their program.

Part-time Master's (Thesis) students must pay six halves Standard Term Tuition installments (at 50%)and then the Continuing Registration Tuition until the end of their program. Part-time students cannot register in more than 6 credit units of course work.

Master's students will be allowed to take up to 15 credit units of course work without extra charge within the FGPF if the courses are required for the student's program. Any additional classes and/or any class outside the student's program, are assessed at the current per credit unit rate.

TRANSFER FROM PROJECT TO THESIS MASTER'S PROGRAM

Student's transferring from a Project Master's program to a Thesis Master's program will be assessed fees so as not to disadvantage students who went directly into a thesis program. Fees will be assessed as follows:

 Fees will be assessed as if the student entered in the thesis program at the time of first registration in the project program.

- Credit will be given for all course work taken up to a maximum of 15 credit units for Master's students.

- The reassessed fee is due at the time of the first registration in the thesis program.

- Calculation of fees and credits will be based on current tuition rates.

- There are no special transfer fees above the reassessment fee.

PH.D. STUDENTS

Full-time Ph.D. students must pay *six* Standard Term Tuition installments and then the Continuing Registration Tuition until the end of their program.

Part-time Ph.D. students must pay twelve halves Standard Term Tuition installments (at 50%) and then the Continuing Registration Tuition until the end of their program. Part-time students cannot register in more than 6 credit units of course work.

Ph.D. students will be allowed to take up to 30 credit units of course work without extra charge within the FGPF if the courses are required for the student's program. Any additional classes and/or any class outside the student's program, are assessed at the current per credit unit rate.

POSTGRADUATE DIPLOMA STUDENTS Admitted to Master's Thesis Program

If a student has completed a Postgraduate Diploma in a relevant field and is admitted fully qualified into a Master's thesis program, the student will be assessed two (2) Standard Term Tuition Installments and

Continuing Registration Tuition if their program is not completed after the two Standard Term Tuitions have been assessed.

GRADUATING STUDENTS

Students must be registered in the period immediately preceding the Convocation in which the degree will be awarded (Spring and Summer Session in the case of Fall Convocation). See tuition waver policy for exceptions to this requirement.

Graduating Master's thesis and Ph.D. students who are not on the Continuing Registration Tuition will be assessed the remainder of the required number of Standard Graduate Terms in their final Graduate Term of registration.

The Continuing Registration Tuition will be refunded on a pro-rated basis for graduating students based on and including the month in the Graduate Term that the student completes all the program requirements.

GENERAL REGISTRATION INFORMATION

Master's thesis and Ph.D. students registering in September may register in any or all of the Graduate Terms in a Graduate Academic Year.

Students in thesis programs who remain at the University of Saskatchewan during the summer months (May to August) in order to work on or defend their thesis research project or make any use of university facilities must register for Spring and Summer Session (registration deadlines are enforced).

Registration Deadlines

First week in September for Term 1 (September – December) & Term 1&2 (September – April) classes. First week in January for Term 2 (January – April) classes *These dates vary from year to year:

*These dates vary from year to year; please contact CGSR for specific dates.

Each student who wishes to undertake work in the College of Graduate Studies and Research must submit to the College a registration form approved by the student's Advisor or Department Head which lists the class(es) to be taken in the session. This registration form must be received in the College of Graduate Studies and Research Office prior to the first day of regular classes for the session. If it is received after this date, a late registration fee will be assessed, to a maximum of \$35.00.

All students in graduate degree programs in departments or colleges listing a 990 course must register in this course until requirements have been completed according to the departmental regulations.

Note: Graduate courses may be taken on an audit basis where space allows and instructors grant permission.

FULL-TIME/PART-TIME STATUS

Full-time students are those who declare themselves to be working full-time on their graduate program and are registered in 994, 995, 996 or 9 credit units of course work in the term. Those students who are registered in their project (992) may choose to affirm their full-time status using the Blue Card (available at the College of Graduate Studies and Research). This card states that they are regularly working at least 40 hours per week on their project graduate program. It is the shared responsibility of the student and the department or college to inform the Graduate College when these conditions change.

Those students who are on scholarship or departmental funding must register full-time in all three graduate terms of the Graduate Academic Year.

Part-time students are those who do not declare themselves to be full-time and/or who are registered in fewer than 9 credit units of course work in the term. Part-time students are most frequently in one of the following categories:

1) Students who have completed full-time residence requirements for their program and have accepted employment;

2) Students in a Master's without thesis or Postgraduate Diploma or MBA program.

Full-time and part-time status can only be changed by the approval of the CGSR upon the written request of the student with the support of the student's department. Changes to full-time or part-time status approved after the change period for a term will take effect in the following Graduate Term.

MAINTENANCE OF STATUS/ CONTINUING REGISTRATION

Master's thesis and Ph.D. students must register in at least one Graduate Term in each Graduate Academic Year to maintain continuous registration. No more than two consecutive graduate terms can be missed. If more than two graduate terms are missed the student must pay fees equivalent to one graduate term (either Standard or Continuing) depending on where they are in their program.

Students in diploma or degree without thesis programs must maintain continuous registration by registering at least once in each 12-month period. Students wishing to be classified as full-time students must meet course and project requirements as defined by the College of Graduate Studies and Research. Information on these requirements can be obtained from the College of Graduate Studies and Research. Students in a Master's program without thesis are required to register in their project course only during the session that they are actively working on it. Students normally complete their project course during one session. If they do not, they will be required to register in the project course during the next session and pay the appropriate fee until the project is completed. The project course will be counted as its credit value for the purpose of assessing fees and determining full or part-time status.

Students who are not working on their degree programs, not using any university facilities or services and not consulting their advisors must register for maintenance of status by paying the prescribed fee and student fees.

STUDENT RESPONSIBILITY

Students are responsible for the completeness and accuracy of their registration. Students must ensure that there is agreement between the program they are following and that entered on their registration form. Students may not attend classes for which they are not registered and may not drop or add courses without proper authorization and in accordance with published deadlines.

CHANGES IN REGISTRATION

Students who wish to drop or add a class must have departmental authorization to do so. A class change is not valid until a class change form signed by the department has been received in the College of Graduate Studies and Research Office. The effective date will be the date this form is received in the College of Graduate Studies and Research Office. Regular university deadlines and cancellation fees will apply (see the General Information section of the Calendar). A student who discontinues attendance in a class without official withdrawal will be marked as having failed (ABF) the course.

ADDRESS CHANGES

Students are responsible for prompt notification to the Office of the Registrar and the College of Graduate Studies and Research of any changes in address, telephone number, or name. An address/name change form for this purpose may be obtained from the Office of the Registrar or the College of Graduate Studies and Research Office. Only one address will be recorded as the main contact address to which university mail will be sent. The university is not responsible for delayed or misdirected mailings as a result of either the student's failure to report a change of address or the actions of an external delivery agent.

LATE REGISTRATION See the 2002-03 Registration Guide.

Students are required to complete their registration by the date specified in the Graduate Academic Schedule for 2002-03. Students seeking registration after this date must receive special permission of the Department and the College of Graduate Studies and Research before they may be registered. This will be granted only in extraordinary circumstances. Late registration fees will be charged after September 5, 2002. No registration or additions/changes to classes starting in Term 1 may take place after September 18, 2002, except in extraordinary circumstances. Students who enter late may be required to register for less than a regular course load.

Students accepted for the second term only should note that late registration fees will be charged after January 6, 2003. No registration may take place after January 17, 2003, except in extraordinary circumstances.

The late fee in the Regular Session will be \$35.00.

GRADUATION

Application for graduation is required of all students who expect the award of a degree at either Spring or Fall Convocation. An Application to Graduate can be obtained at either the Office of the Registrar or the College of Graduate Studies and Research Office. Deadlines for submission, etc., are indicated under "Significant Dates" at the beginning of this section.

TUITION AND FEES

Tuition fees are assessed at the time of registration at the College of Graduate Studies and Research. They are subject to validation for accuracy and correctness at any time by the Office of the Registrar.

2001-2002 TUITION AND FEE SCHEDULE

Graduate tuition and compulsory student fees are described below. There are different schedules for Canadian and International students.

At the time of printing the *Calendar*, the 2002-2003 Tuition and Fee Schedule was not available.

Fees are those on record at time of printing and are subject to review and revision at any time by the Board of Governors of the University.

Central Registry of Fees

The Central Registry of Fees (CRF) is a list of fees that can be charged to students. Fees are charged in addition to tuition, and must be approved by the Board of Governors. The Central Registry of Fees is available on the web at: www.usask.ca/registrar/current_fees/

TUITION

Postgraduate Diploma Programs, Master's, and Master of Business Administration (Project) • each 3 credit unit course

numbered 700 or above	6420.00
 each 6 credit unit course 	
numbered 700 or above	.840.00
 maximum (Regular Session)4 	,200.00
maintenance of status	.420.00
transfer fee	.420.00
 first registration in project 	
3 credit unit course	.420.00
6 credit unit course	.840.00
• subsequent registration in project	

• cost for the program......\$8,000.00

Master of Veterinary Science

• standard fee (regular session) .. \$1,820.00

Master's Thesis Programs and Doctor of Philosophy

Graduate students in thesis programs will be assessed a Fixed Graduate Program fee, payable in equal installments in the first three terms of registration (Master's level), or the first six terms of registration (Ph.D. level). Please contact the College for further details.

Master's Thesis Programs

• standard term tuition (per 4-month

graduate term)\$1,535.00 • continuing registration tuition (per 4-

month graduate term)\$420.00

Doctor of Philosophy Degreestandard term tuition (per 4-month)

statuate term) unition (per 4-month)
 graduate term)\$1,535.00
 continuing registration tuition (per 4-

month graduate term)\$420.00

Master's students who transfer to a Ph.D. program of study will pay three standard term tuition installments under their Master's programs and then pay six standard Ph.D. term tuition installments.

STUDENT FEES

Student Union	6.73
Athletic and Recreation	56.64
Student Services Fee	30.00
Graduate Students' Association (G	i.S.A.)
Activity Fee	
Canadian Graduate Council	2.00
G.S.A . Health Insurance*	120.72
G.S.A. Dental Insurance	
(yearly premium)	<u>100.50</u>
Total =	\$355.94

*\$80.48 for students starting their program in January; students starting in May will not be assessed or covered by the Health Insurance until they register for the Regular Session.

Part-time Students

	<u>2.0l</u>
Canadian Craduata Caunail	0.00
Activity Fee	22.55
Graduate Students' Association (G.S.	A.)
Student Services Fee	30.00
Athletic and Recreation	28.32

Maintenance of Status Students

Total =	\$24.55
Canadian Graduate Council	<u>2.00</u>
Activity Fee	
Graduate Students' Association (G.S.A.)

All Graduate Students in Canada on a Student Authorization will be assessed an annual International Student Fee of \$100.00.

Students claiming landed immigrant status must do so before September 30 (before January 31 for students registered in Term two only) for waiver of this fee. Contact the International Student Advisor's Office for more information.

THESIS TUITION REDUCTION POLICY

A partial reduction of tuition fees may be requested by students completing their thesis requirements part-way through a session. To be eligible for this reduction students must have completed their thesis defence; submitted all convocation documents to the Graduate College; submitted their thesis to the Bindery; and submitted a completed "Request for a Tuition Refund" form available from the CGSR office. Check the "Convocating Student Checklist" (also available from CGSR) for further details.For more details contact the College. Postgraduate diploma and Master's Project (project) students are not eligible for this reduction.

The student must submit a written request in advance for the tuition reduction. *Late requests will not be processed*. Students who are eligible for a refund can expect to receive it approximately one month after the thesis defense.

DEFINITION OF THESIS REQUIREMENTS

The College of Graduate Studies and Research defines thesis requirements to include the following: the student has applied to graduate, all required graduation forms and the unbound thesis for Ph.D. students have been submitted to the college, and the thesis has been submitted to the bindery for binding.

PAYMENT OF TUITION AND Compulsory fees

Subject to revision at any time. Student Accounts and Treasury E40-105 Administration Place University of Saskatchewan Saskatoon SK S7N 5A2 Telephone: (306) 966-4601

Once a student has registered they are responsible for the payment of any assessed fees. Fees are due upon assessment. A statement of tuition, student fees and other balances owing will be sent to students monthly, however payment is due regardless of whether or not a statement is received. Students should not wait to receive a statement of fees owing before making payment. To determine the current amount owing, please consult the confirmation copy of your registration.

PAYMENT DUE DATES FOR REGULAR SESSION

For students registered in Term 1 classes or in classes that span over both terms, the tuition associated with these classes and all related student fees assessed are due on **the last working day in September**. For students registered in Term 2 classes, the tuition associated with these classes is due on **the last working day in January**.

For students only registered in Term 2 classes, the tuition associated with these classes and all related student fees assessed are due on **the last working day in January**.

If payment is not received on or before these deadlines, interest at 1.5% will be charged on any balance that remains outstanding. Outstanding balances which continue to remain unpaid will be subject to interest charges of 1.5% compounded monthly (19.56% per annum) until the balance is paid in full. Students who add a class after a payment deadline must pay fees immediately for that class or risk incurring an interest charge.

Failure to make payment by the stated deadline will result in the withholding of future services by the university and in some cases may result in the termination of student status. Students will not receive grades or transcripts, will not receive their parchments upon graduation and are not eligible for re-registration until all overdue accounts have been cleared with the University. Non-payment of tuition and fees does not constitute an official withdrawal from the university.

METHOD OF PAYMENT

The regular hours of business are 08:30 to 16:30, Monday through Friday.

Cash, Cheque, Interac Debit Card, Visa, Mastercard, telephone or internet banking, are all acceptable methods of payment. Students are strongly encouraged to make payment by telephone or internet banking service or at a financial institution in order to avoid line-ups.

If you have subscribed to your bank's telephone or internet banking service, you

can pay your tuition using this method. The account number for the University of Saskatchewan is your student number. The university is registered with the following banks: Bank of Montreal, Bank of Nova Scotia, Canadian Imperial Bank of Commerce, Royal Bank of Canada, Toronto Dominion Bank and most Credit Unions.

If you have received a statement in the mail. it can be paid at any financial institution or ATM in Canada. The detachable portion of the statement has microencoding that will allow it to be processed by the financial institution. Bring the original statement along with a method of payment (cash, cheque, bank draft, money order) to the financial institution. Please note that financial institutions cannot accept payment by Visa or Mastercard without taking a cash advance which will result in interest charges on your Visa or Mastercard account. To pay at an ATM, include the stub portion along with the payment in the envelope provided by the ATM and follow the on-screen prompts. Payments will be considered to be received by the University on the day that payment is made at the financial institution or ATM as indicated by the bank stamp on the back of the payment stub

If mailing fees, forward cheque or money order (on which the student number is clearly written) to Employee and Student Accounts, Student Fees. Cheques or money orders should be made payable to "University of Saskatchewan". Cash should not be sent in the mail. Payments sent through the mail must be received by the payment deadline to avoid interest charges.

Canada Student Loans - To receive university confirmation of enrolment for a Canada Student Loan, students must present the approved Schedule 1 Ioan form* if they have registered using U-STAR. Students not eligible to register using U-STAR must present the approved Schedule 1 Ioan form* along with proof of registration (i.e., the confirmation copy of their Registration Form). It is university policy that total assessed fees will be deducted from Canada Student Loans, unless students are able to produce proof that fees have already been paid. Installment payments will not be allowed.

*Student loan forms cannot be signed prior to 30 days before the start date of classes.

Scholarships - All scholarships administered through Employee and Student Accounts, Student Fees, are first applied to assessed tuition and student fees. The remainder of the award, if any, is forwarded by cheque to the student after a waiting period intended to assure that any and all fees have been properly assessed. Students should allow 2-4 weeks for awards to be processed.

All administrative fees are continually subject to review.

PAYMENT DUE DATES FOR THE Spring and summer ("0") Session

There are separate payment deadlines for Term 1 and Term 2. See the *Spring and Summer Session Bulletin* for the specific dates.

DROPPING COURSES

Students who wish to drop any or all courses should report at once to the College of Graduate Studies and Research Office in order to obtain an authorized form, which must be presented first to the Department Head, then to the College of Graduate Studies and Research. A student who withdraws unofficially without completing such forms will not be eligible for any refund of fees, nor exemption from fees in the event that they were unpaid. For the purpose of refund of fees, the date of withdrawal will be the date the authorized form is received in the College of Graduate Studies and Research Office. An absent/failure (ABF) will appear on the record of a student who has not officially withdrawn from a course

COMPLETION OF GRADUATE CLASSES

All students registering in a graduate course in a particular term must finish the course in the same term. Any student withdrawing from a course after the drop deadlines will receive a withdraw failure (WF) on their transcript. Students who do not withdraw and do not complete course requirements by the end of the final examination period will receive a grade of INF or ABF.

UNDERGRADUATE REGISTRATION IN GRADUATE COURSES

Graduate courses are usually available only to students admitted and registered in the College of Graduate Studies and Research. With special permission from their undergraduate program advisor and the Dean of Graduate Studies and Research. undergraduate students registered at the University of Saskatchewan may be granted permission to register in a graduate class. Contact the College of Graduate Studies and Research Office for the necessary permission forms.

GRADING SYSTEM

The following describes the relationship between literal descriptors and percentage scores for courses in the College of Graduate Studies and Research:

90-100 Exceptional

A superior performance with consistent strong evidence of

- a comprehensive, incisive grasp of subject matter;
- an ability to make insightful, critical evaluation of information;
- an exceptional capacity for original, creative and/or logical thinking;

• an exceptional ability to organize, to analyze, to synthesize, to integrate ideas, and to express thoughts fluently;

• an exceptional ability to analyze and solve difficult problems related to subject matter.

80-89 Very Good to Excellent

A very good to excellent performance with strong evidence of

a comprehensive grasp of subject matter;

 an ability to make sound critical evaluation of information;

· a very good to excellent capacity for original, creative and/or logical thinking;

• a very good to excellent ability to organize, to analyze, to synthesize, to integrate ideas, and to express thoughts fluently:

• a very good to excellent ability to analyze and solve difficult problems related to subject matter.

70-79 Satisfactory to Good

A satisfactory to good performance with evidence of

• a substantial knowledge of subject matter;

• a satisfactory to good understanding of the relevant issues and satisfactory to good familiarity with the relevant literature and technology;

• a satisfactory to good capacity for logical thinkina:

• some capacity for original and creative thinkina:

• a satisfactory to good ability to organize, to analyze, and to examine the subject matter in a critical and constructive manner;

· a satisfactory to good ability to analyze and solve moderately difficult problems.

60-69 Poor

A generally weak performance, but with some evidence of

- a basic grasp of the subject matter;
- some understanding of the basic issues;
- some familiarity with the relevant literature and techniques;

• some ability to develop solutions to moderately difficult problems related to the subject matter;

• some ability to examine the material in a critical and analytical manner.

<60 Failure

An unacceptable performance.

Program Requirements

 Percentage scores of at least 70% are required for a minimal pass performance in undergraduate courses taken by graduate students:

• Percentage scores of at least 70% are required for a minimal pass performance for each course which is included in a Ph.D. program;

• Graduate courses for which students receive grades of 60-69% are minimally acceptable in a Master's program, provided that the GPA is at least 70%;

· Graduate courses for which students receive grades of 60-69% are minimally acceptable in a Postgraduate Diploma program, provided that the GPA is at least 65%:

· Students should seek information on other program requirements in the Calendar and in Department and College publications.

SCHOLARSHIPS. FELLOWSHIPS AND ASSISTANTSHIPS

A number of scholarships and assistantships are available for full-time. fully-qualified students in Master's and Ph.D. programs. Brief descriptions of these awards are available on our electronic Awards Database. There is a downloadable version, which you can print off yourself and get the most current information on a daily basis. You may view this publication at www.usask.ca/cgsr/

In addition, certain colleges and departments offer scholarships, assistantships and bursaries to students pursuing particular programs of study. Consult the Office of the Dean or the Head of the Department for additional information.

The Dean of Graduate Studies and Research has approved a number of departments to allocate University Graduate Scholarships at the departmental level. Please contact the department Graduate Chair regarding Graduate Scholarships or the CGSR Awards Administrator.

STUDENT RIGHTS, APPEALS AND ACADEMIC DISHONESTY

Graduate students are expected to be familiar with the university's official policy on academic dishonesty and misconduct. The regulations on Student Appeals and Academic Dishonesty are on the web at www.usask.ca/university_council/reports.shtml.

Graduate students are also advised to obtain copies of the following publications: Guidelines for the Various Parties Involved in Graduate Student Project and Thesis Research - from the College of Graduate Studies and Research Office; Graduate Student Handbook - from the GSA Office; Guidelines for the Preparation of a Thesis from the University Bookstore. All of the above graduate publications and the College of Graduate Studies and Research Policy and Procedures Manual are also available for viewing on the web at www.usask.ca/cgsr/

An Intellectual Properties Policy (Graduate Students) was approved in 1996 and is available online atwww.usask.ca/ avpr/ors/mission/ip.html

LEAVES OF ABSENCE

Students may request a Leave of Absence for up to 12 months. Such a Leave may be granted for medical, maternity/parenting or compassionate reasons, but not to accept employment. Student requests must be in writing, must indicate the reason for the leave with appropriate documentation, and must include a letter of support from the Graduate Chair. Students on Leave of Absence are not entitled to university services. They pay no fees and may request that the time of the Leave not count in their graduate program. Leaves of Absence are not granted retroactively.

PROGRAMS

PROGRAMS

DISCIPLINARY AREAS

In the College of Graduate Studies and Research disciplinary areas are divided as follows:

Humanities and Fine Arts

- · Art and Art History
- Classics
- Drama*
- English • French
- German
- History
- · Languages and Linguistics
- Music
- Philosophy
- Religious Studies*
- Spanish

Life Sciences

- AnatomyAnimal and Poultry Science Applied Microbiology
- Biochemistry
- Biology Biotechnology^{*}
- Community Health and Epidemiology
- Food Science
- · Herd Medicine and Theriogenology
- Kinesiology
- Medicine³
- MicrobiologyNutrition and Dietetics
- Obstetrics, Gynaecology & Reproductive Science
- Pathology
- Pediatrics
- Pharmacology
- Pharmacy
- Physiology
- Plant Sciences
- Psychiatry (Applied)*
 Psychiatry (Neuro)
- Rehabilitation Medicine*
- Soil Science
- SurgeryToxicology

Veterinary Pathology

Biomedical Engineering

Chemical Engineering

Civil Engineering

Computer Science

Electrical Engineering

Geological Sciences

Social Sciences A

• Environmental Engineering

• Mathematics and Statistics

Mechanical Engineering

Agricultural Economics

Anthropology and Archaeology

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• Chemistry

Physics

• Economics

Geography

Native Studies*

• Law

Nursing

- Veterinary Anatomy · Veterinary Anesthesiology, Radiology
- and Surgery Veterinary Internal Medicine
 Veterinary Microbiology

Veterinary Physiological Sciences

Physical & Engineering Sciences

Agricultural and Bioresource Engineering

GRADUATE STUDIES & RESEARCH • Accounting

- Political Studies
- Psychology
- Sociology
- Women's and Gender Studies*

Social Sciences B

- Accounting
- Agricultural Extension
- Business Administration
- Adult and Continuing Education
 Curriculum Studies (Including Educational)
- Communications and Technology)
- Education of Exceptional Children
- Educational Administration
- Educational Foundations
- Educational Psychology
- Finance and Management*
- Indian and Northern Education Program

Management and Marketing
 *There are students in "Special Case" programs in these
departments.

NEW PROGRAMS

Subject to approval the following new programs may be introduced in the upcoming year. Please contact the College of Graduate Studies and Research for further updates.

M.B.A. in Agriculture

ACCOUNTING

MASTER OF PROFESSIONAL Accounting

The MPAcc program is designed to prepare candidates for careers as professional accountants in public practice and industry. The program consists of eleven courses taken over two consecutive summer semesters (May through August). The courses include advanced study in accounting, assurance and taxation, and expose candidates to financial and strategic management, the modern business environment, information systems and entrepreneurship. A key component of the program is a research project, which is completed in a relevant subject area chosen by the candidate. The program also develops candidates' personal and professional competencies such as communication skills, teamwork, ethical judgement and problem solving through a series of workshops. Successful candidates are well prepared to challenge professional accounting qualifying examinations (e.g. the Chartered Accountants' Uniform Evaluation). Candidates often obtain business and accounting work experience during the eight-month period between summer semesters, however this is not a requirement of the program. Interested students please consult the Director of the MPAcc program in the Accounting Department.

MASTER OF SCIENCE IN ACCOUNTING

The M.Sc. program represents an intensive analysis of the discipline. Course work and thesis are directed towards an examination of the current status and the evolution of accounting thought as well as that of various organizations and structures which the profession has developed. Candidates for admission must hold a four-year undergraduate degree with an accounting major. Professional certification in accounting may be accepted in lieu of the accounting major requirement. Enrolment will be restricted to four or five students a year.

The program contains several integrating viewpoints and approaches. First is a concern with examining and recognizing the interrelated nature of the various aspects of accounting - in effect the unity of accounting thought. The traditional managerial and financial as well as quantitative and behavioral aspects of accounting are integrated within each course. Second, the program views the discipline of accounting as being intimately related to the profession itself - its organization, role, evolution, leadership, etc. - and therefore considers these as appropriate areas for academic inquiry. Third, each course in the program is designed to produce in the student an awareness of the most recent accounting research

Areas of research under investigation by faculty

The Accounting Department's faculty are interested in a number of different areas of research: financial statement analysis, accounting education, judgment in auditing, audit-management conflict, audit risk, accounting academic-practitioner interface, business valuation, disclosure strategy, international accounting, accounting information and capital markets, and management accounting and control.

Requirements: The M.Sc. in Accounting degree requires a candidate to take at least 15 credit units of courses which are graduate in nature for the field in which the student is working and a thesis on a subject permitting the student to make a contribution to knowledge.

Prospective applicants requiring more information about the M.Sc. Program are invited to write to the Director of the M.Sc. Program in Accounting, College of Commerce, University of Saskatchewan, 25 Campus Drive, Saskatoon SK S7N 5A7.

AGRICULTURAL ECONOMICS

The Department of Agricultural Economics offers graduate programs leading to the Ph.D., M.Sc., and M.Ag. degrees and the Postgraduate Diploma. Research interests in the department lie in the areas of agricultural policy, international trade, farm business management, international development, rural development, cooperatives, biotechnology and natural resource and environmental economics.

Students with a recognized four year Bachelor's degree in agricultural economics, economics, or a relevant field can be admitted directly into the M.Sc. program. Background training should include training in mathematics, statistics, economic theory, and computers. Those students whose undergraduate training is in an area of specialization other than agricultural economics, economics, or a relevant field are usually required to take about one year of additional training in agricultural economics at the undergraduate level.

AGRICULTURAL AND BIORESOURCE ENGINEERING

Ph.D., M.Sc., M.Eng. and PGD programs are available in the Department of Agricultural and Bioresource Engineering to qualified students with a degree in engineering or the natural sciences. Research interests in the department lie in the areas of agricultural machinery design, tillage mechanics, sensors and instrumentation for agricultural and biological systems, agricultural building environments, soil and water management, waste management, coldregions hydrology, postharvest and food engineering, and added-value processing. Research programs may be arranged in environmental engineering in consultation with the Environmental Engineering Division. The faculty in the department work closely with engineers and scientists at PAMI, the Centre for Agricultural Medicine, the Prairie Swine Centre, the National Water Research Institute, and the Saskatchewan Irrigation Development Centre. In addition, interdisciplinary programs can be arranged in cooperation with other university departments.

Course requirements for fully qualified students consist of a minimum of 15 credit units for the Masters program, and 6 credit units beyond the Masters for the Ph.D. Students from a non-engineering background, or changing their areas of research, may be required to take additional courses at the undergraduate level. Courses are chosen in consultation with the student's advisory committee and typically include courses delivered by other university departments.

For more details about faculty, staff, research facilities and application procedures contact the Graduate Chair or the department web site at www.engr.usask.ca/dept/age.

Students considering graduate level courses should consult with the faculty member responsible for teaching the course before registering, to determine when the course will be offered.

ANATOMY AND CELL BIOLOGY

The Department of Anatomy and Cell Biology offers graduate programs leading to the M.Sc. and Ph.D. degrees. Areas of research interest include neurobiology, cell biology, developmental biology and advance anatomical image analysis. Students must have a B.Sc. 4-year degree. Program requirements for fully-qualified students are a minimum of 15 credit units of coursework and a thesis for the M.Sc. and a minimum of 21 credit units of coursework and a thesis for the Ph D Students must register in Anatomy 990 and Anatomy 994 (M.Sc.) or Anatomy 996 (Ph.D.). Further details are available on the web site at www.usask.ca/anatomy or from the Graduate Program Chair of the department.

ANIMAL AND POULTRY SCIENCE

Programs leading to the M.Agr., M.Sc. and Ph.D. degrees are offered in all major divisions of Animal and Poultry Science; many supporting courses are available in other departments. A minimum of 15 credit units of course work is required for the M.Sc. and a further 6 credit units is required for the Ph.D. degree. Current research includes nutritional, physiological, genetic and management studies in behaviour of farm animals. Students should contact the department to determine when specific courses are offered.

ANTHROPOLOGY AND Archaeology

The Department of Anthropology and Archaeology offers a graduate program leading to the degree of Master of Arts in Anthropology. Students wishing to register in the program should consult with the Head of the Department and the graduate advisor as early as possible in advance of the regular academic session.

The graduate program has been designed to provide flexibility in the choice of courses and research topics within the capacity of the department's resources. An applicant must hold a B.A. Honours or equivalent degree in anthropology or archaeology. Students with Honours degrees in other disciplines are encouraged to apply, but they will be required to do qualifying course work. The admission prerequisites are: (1) at least one course in three of the four sub-fields cultural anthropology, physical anthropology, archaeology and linguistics; (2) substantial course work in the area of declared research interest; and (3) a course either in the history of anthropological theory or in archaeological method and theory.

Anthropology is considered the major field of study, but each applicant must declare an area of concentration in one of the subfields mentioned above. Applicants are strongly encouraged to identify the topic area in which they wish to do their thesis research so that a thesis supervisor can be assigned when the applicant is accepted. The course requirements consist of 15 credit units at the graduate level, which must include either ANTH 803.3 or ANTH 805.3. Other courses are chosen in consultation with the student's supervisory committee. Some of these courses may be taken from cognate fields outside the department.

APPLIED MICROBIOLOGY AND FOOD SCIENCE

The Department of Applied Microbiology and Food Science offers M.Agr., M.Sc. and Ph.D. programs in Applied Microbiology. Programs may be oriented towards Biotechnology. Emphasis in course work and research is on the role and exploitation of microbial activities in agriculture, industry and the environment. Faculty research interests include food quality and safety, fermentation, yeast nutrition, microbial biotechnology, applied genetics, environmental microbiology, and microbial ecology.

The course requirements for M.Agr. programs is 30 credit units, at least 18 of which must be at the graduate (800) level, plus a seminar course (AP MC 990) and a project (AP MC 992). Candidates are required to pass a comprehensive examination and an oral defence of the project report. M.Sc. programs require a minimum of 6 credit units of graduate-level courses, annual registration in a seminar course (APMC 990), and a thesis (AP MC 994), which requires an oral defence. Ph.D. programs require a minimum of 6 credit units of graduate-level courses, a comprehensive examination, annual registration in a seminar course (AP MC 990), and a thesis (AP MC 996), which requires an oral defence, M.Sc. and Ph.D. programs may require a preliminary (qualifying) examination.

Food Science

The Department of Applied Microbiology and Food Science offers M.Agr., M.Sc. and Ph.D. programs in Food Science. Faculty research interests include food chemistry, food analysis, detection of food adulteration, meat science, product development, food safety and quality assurance, and the processing and utilization of grain crops.

Specific requirements for graduate programs in Food Science are identical to those described for corresponding programs in Applied Microbiology, with equivalent FD SC courses substituting for the AP MC courses listed.

ART AND ART HISTORY

The Master of Fine Arts degree is offered in studio art. Candidates for the M.F.A. degree must have a B.F.A. degree or its equivalent with acceptable standing upon entrance to the program. When applying for admission, students must submit a statement of intent and a proposed area of research or study to the Head of the Department. Applicants are requested to present 20 slides, 3 letters of recommendation, official transcripts and a University of Saskatchewan application form. Applications for admission should be made no later than February 1 for the term beginning the fall of that year.

After admission, a program of courses and research will be arranged in consultation with the department's Graduate Committee and the candidate's supervisor. Accepted candidates may concentrate in the following studio disciplines: painting, drawing, printmaking, sculpture, photography, and extended media. Applicants should anticipate a minimum of two years to complete the program requirements. Studio facilities are available for 1st and 2nd year candidates. Upon completion of the program, the department will, in consultation with candidates, select one work from M.F.A. exhibitions for the university collection.

The requirements for the M.F.A. degree are:

- M.F.A. exhibition
- One secondary studio art course (6 credit units)
- One academic course relevant to

student's program and approved by the department's Graduate Committee (6 credit units)

· Biweekly seminars in art

In addition, *one* of the two following options must be selected: *Ontion A*

- Project paper (major paper)
- Oral defense of exhibition and paper
- Option B
- Problems in Contemporary Art (6 credit units)
- · Exhibition statement
- · Oral defense of exhibition and statement

Both Option A and B constitute the M.F.A. with thesis. Under Option A the major paper and exhibition represents the thesis. Under Option B the exhibition statement and exhibition represents the thesis.

BIOCHEMISTRY

The Department of Biochemistry offers programs in Graduate Studies leading to the M.Sc. and Ph.D. degrees. Individual graduate student programs in Biochemistry can emphasize antibody structure and abzymes, biotechnology, cell biochemistry, diabetes, gene expression, metabolism, molecular biology, muscle function, plant biochemistry, protein structure/function and engineering, and signal transduction in metabolism and cancer. Collaborative graduate research opportunities with Agriculture Canada, the Plant Biotechnology Institute, and the Saskatoon Cancer Centre exist.

BIOLOGY

The Department of Biology offers programs leading to the M.Sc. and Ph.D. degrees in molecular, cellular, organismic population, ecosystem and evolutionary biology. The faculty, which includes associate members and adjunct professors from other departments and institutes on campus, has particular strength in ecology and behaviour, plant biotechnology and developmental biology. Joint graduate research programs can be arranged with other colleges of the university: Western College of Veterinary Medicine, College of Medicine, and College of Agriculture. Joint research programs can also be arranged with several government institutions on the campus: Canadian Wildlife Service; Prairie and Northern Wildlife Centre; National Research Council, Plant Biotechnology Institute; Agriculture and Agri-Food Canada, Saskatoon Research Centre (applied entomology and plant pathology); National Water Research Institute; Saskatchewan Environment and Resource Management, Fish and Wildlife Branch. Minimum course work consists of 9 credit units for M.Sc., with a minimum of 6 credit units of 800-level courses and a maximum of 3 credit units of 400-level courses.

Minimum course work for Ph.D. consists of 9 credit units of 800-level graduate courses (inclusive of any such courses taken at the M.Sc. level). Extra courses may be required to address academic deficiencies of students not well prepared for graduate studies in a specific discipline. Graduate students are also required to register in the seminar course BIOL 990 for a minimum of two years.

GRADUATE STUDENT RESEARCH PROJECTS

The Department of Obstetrics and Gynecology through the auspices of its Reproductive Biology Research Unit offers graduate students the opportunity to engage in research in gamete biology and embryology using tools ranging from molecular to clinical.

BIOMEDICAL ENGINEERING

The Division of Biomedical Engineering offers postgraduate programs leading to M.Eng., M.Sc. and Ph.D. degrees. Research in the Division is of an interdisciplinary nature involving the application of Engineering Sciences to the solution of specific problems in Medicine, Veterinary Medicine, and related fields. The following are focal areas for the activity: biomedical signal processing, physiological system modeling, biomedical image processing, biomechanics and medical instrumentation.

Students with a Four-year Bachelor's degree in Engineering, the Natural Sciences, Applied Mathematics, Computer Sciences, Medicine, Dentistry, Veterinary Medicine or in the general Life Sciences are eligible for admission. Candidates for the M.Eng. are required to have a Bachelor's degree in Engineering. Courses to be taken are determined on an individual basis. They will be selected from the specialized courses listed below, from graduate level courses in the student's original discipline and from introductory courses of a complementary character. This means that students with a basic degree in the Physical Sciences will be required to take introductory courses in selected disciplines of the Life Sciences and vice versa. In addition to course work. submission of a research thesis is required for M.Sc. and Ph.D. students. Candidates for M.Eng. are required to submit a final report on their project.

In addition to the specialized courses offered, students may take courses offered by other colleges and departments. These courses may be selected in consultation with the Chair and the Supervisor. Descriptions of these courses may be found in the *Calendar* as well as in the bulletin of the Division.

BIOTECHNOLOGY

Biotechnology is a field of study which encompasses three traditional scientific areas: genetic and cellular manipulative technology, enzyme technology and fermentation technology.

Although no formal graduate program in Biotechnology has been established, programs leading to M.Agr., M.Sc., or Ph.D. degrees with specialization in Biotechnology are offered in the following disciplinary areas and departments:

Anatomy and Cell Biology, Animal and Poultry Science, Applied Microbiology and Food Science, Biochemistry, Biology, Crop Science and Plant Ecology, Microbiology and Veterinary Microbiology. Students interested in such a program should contact one of the above departments.

Relevant graduate and senior undergraduate courses that are relevant to biotechnology include:

ANAT 300.3 Cell Biology

ANAT 450.3 Introduction to Tissue Culture ANAT 802.3 Advanced Cytogenetic

Techniques

ANAT 812.6 Tissue Culture

AN SC 313.3 Animal Breeding and Genetics

AN SC 812.3 Advanced Animal Genetics AN SC 870.3 Applied Animal

Biotechnology.

AP MC 434.3 Industrial Microbiology 1

AP MC 437.3 Industrial Microbiology II

AP MC 801.3 Laboratory in Fermentation Technology

AP MC 803.3 Genetics of Industrial Microorganisms

AP MC 806.3 Anaerobic Microbiology

AP MC 807.3 Microbial Biotechnology in Industry and Agriculture

AP MC 825.3 Carcinogens and Mutagens

AP MC 833.3 Microbial Insecticides

AP MC 836.3 Food Microbiology

AP MC 838.3 Laboratory in Microbial Insecticides

BIOCH 800.3 Information Transfer: DNA to Proteins

BIOCH 810.3 Proteins and Enzymes (First offered September 1999)

BIOCH 811.3 Introductory Molecular Biology

BIOCH 812.3 Protein Structure, Function and Engineering (First offered January 2000)

BIOCH 820.3 Advanced Plant Biochemistry. (First offered Jan 2000)

BIOCH 830.3 Cell Biochemistry

BIOCH 836.3 Advanced Molecular Biology

BIOCH 843.3 X-ray Crystallographic

Structure Determination BIOL 316.3 Intermediate Genetics

BIOL 420.3 Molecular Biology of Plants

BIOL 811.3 Cell Biology

BIOL 812.3 Seminar in Genetics

BIOL 825.3 Current Topics in Plant Molecular Biology

BIOL 832.3 Control of Plant Growth and Development

Biotechnology • GRADUATE STUDIES & RESEARCH

GRADUATE STUDIES & RESEARCH • Biotechnology

BIOL 835.3 Genetic Approaches to Plant Physiology

BIOL 841.3 Advanced Plant Pathology BIOL 871.3 Advanced Insect Physiology CH E 861.3 Fundamental Biochemical Engineering

CH E 862.3 Advanced Biochemical Engineering

CHEM 858.3 Natural Product Chemistry CHEM 860.3 Proteins and Nucleic Acids

HMT 801.3 Principles of Embryo Transfer MICRO 386.6 Microbial Genetic

Mechanisms

MICRO 395.6 Laboratory Aspects of Microbiology

MICRO 812.3 Principles of Immunology

MICRO 814.3 Microbial Physiology

MICRO 817.3 Molecular Virology MICRO 827.3 Advanced Cellular and

Molecular Immunology

MICRO 860.6 Microbial Genetics

PL SC 405.3 Evolution and Population Genetics

PL SC 411.3 Genetics and Plant Breeding

PL SC 416.3 Applied Plant Biotechnology PL SC 812.3 Population and Conservation Genetics

PL SC 815.3 Applied Plant Cytogenetics PL SC 816.3 Quantitative Genetics

PL SC 818.3 Physiology and Biochemistry of Herbicide Action

PL SC 822.3 Biotechnology in Crop Development

VT MC 830.3 Recent Advances in Microbiology

VT MC 831.3 Research Techniques and Instrumentation

VT MC 833.3 Advanced Virology

For details see the Courses section of the *Calendar.*

BUSINESS ADMINISTRATION

MASTER OF BUSINESS Administration

The College of Commerce offers a graduate program leading to the degree of Master of Business Administration (M.B.A.). This program is designed to meet the needs of those students whose undergraduate education has been in academic disciplines other than business, and whose future careers are likely to involve managerial activities.

Admission to the Master of Business Administration program is open to graduates of universities approved by the College of Graduate Studies and Research in accordance with its normal admission requirements.

Graduates of a four year program from the College of Commerce, or its equivalent, can normally complete the degree requirements within one year. Students whose undergraduate degree is in a discipline other than business should plan on a two year period to complete the program. Required courses in the first year are: MBA 710.3, 720.3, 730.3, 740.3, 750.3, 802.3, 804.3, 806.3, 808.3 and 810.3. Required courses in the second year are: MBA 828.3, 830.3, 832.3 and 992.3 for the Project option and MBA 828.3, 830.3, 832.3 and 994 for the thesis option. In addition, 18 credit units in electives at the 800 level are required in the Project option while 9 credit units in electives are required in the thesis option. All students must meet with the Associate Dean of Commerce for advising on program of studies and prerequisites required.

All students seeking admission to the Master of Business Administration program must write the Graduate Management Admission Test (GMAT). Information on test centres, dates of tests, and deadlines for registration may be obtained from: Graduate Management Admissions Council web site at www.gmac.com/.

Prospective students requiring more information about the Master of Business Administration program at the University of Saskatchewan are invited to write the Associate Dean, College of Commerce, University of Saskatchewan, 25 Campus Drive, Saskatoon SK Canada, S7N 5A7.

CHEMICAL ENGINEERING

The Department of Chemical Engineering offers programs leading to the M.Eng., M.Sc. and Ph.D. degrees. Research projects in Chemical Engineering are concerned with the following areas: multiphase fluid mechanics, mass transfer, chemical thermodynamics and thermodynamic modeling, process control, crystallization, corrosion, biochemical engineering, pollution control environmental engineering, catalytic reaction engineering, biofuels, fluidized bed reactors, heavy oil upgrading, renewable energy and chemical processes. All of these research areas are of interest in Western Canada as well as nationally and internationally. Further details are contained in a brochure available from the departmental office. See also the Chemistry listing in the Courses section of the Calendar

CHEMISTRY

The Department of Chemistry offers research-intensive programs leading to the M.Sc. and Ph.D. degrees. Research activities cover modern aspects of analytical, organic, inorganic, physical, and theoretical chemistry. In addition, several interdisciplinary fields are emphasized including biological chemistry, electrochemistry, spectroscopy and photochemistry, chemical structure, and interfacial and surface phenomena. In order to promote research, the department maintains close ties with other science and engineering departments, the National Research Council, and other government institutions on campus.

M.Sc. candidates must successfully complete Chem 801.6 and an additional 6 credit units of approved course work. For the duration of their program, students must do research, participate in a literature course and attend the Chem 990 seminars. Furthermore, they must pass an M.Sc. comprehensive examination and orally defend a thesis describing the results of original research. The comprehensive examination consists of the presentation of results in the form of a departmental seminar covering the complete thesis work at about the time of submission of the thesis.

Ph.D. candidates must successfully complete 6 to 18 credit units of approved course work (depending on their background, this may include Chem 801.6). For the duration of their program, students must do research, participate in a literature course and attend the Chem 990 seminars. Furthermore, they must pass qualifying and comprehensive examinations. The qualifying examination, typically held in the first year of study, takes the form of a seminar in which the proposed thesis research is orally presented to the department. The comprehensive exam occurs towards completion of their research work. The students are required to present a seminar on a topic akin to their chosen area of research. Students must orally defend a thesis describing the results of original research. In general, graduate students are admitted into the M.Sc. program. Transfer to the Ph.D. program is possible after completion of Chem 801.6 and passing of the Ph.D. qualifying examination. Students with a recognized M.Sc. degree may be admitted directly into the Ph.D. program.

Research activities cover modern aspects of analytical, organic, inorganic, physical, and theoretical chemistry. In addition, several interdisciplinary fields are emphasized including bioorganic chemistry, biological chemistry, electrochemistry, spectroscopy and photochemistry, chemical structure, and interfacial and surface phenomena.

Analytical Chemistry: Elucidating speciation in systems of environmental and toxicological interest; exploring the fundamental aspects of quantitative solution speciation; electrochemical analysis with ultramicroelectrodes; development of electrochemical detectors for capillary electrophoresis; and flowinjection analysis.

Bioorganic and Biological Chemistry: The study of the kinetics of enzyme-catalyzed reactions in order to understand the relationship between the structure, function, mechanism and evolution of enzymes; elucidation of enzyme mechanisms from structural studies; the bioorganic chemistry of nucleic acids; the study of the molecular and structural basis for site-specific recognition, covalent modification and cleavage of DNA by small molecules and proteins; the discovery of the chemical and biochemical mediators involved in the interaction of ecologically important systems, including the interactions of plants with pathogenic microorganisms, and the study of the role of these mediators in the interactions, with the ultimate goal of developing environmentally safe strategies for controlling plant pests and pathogenic systems; the study of electron transfer in modified peptidic systems to gain insights

into molecular recognition related to peptide-peptide interactions; ab initio quality electron densities for proteins, quantum-chemical drug design and toxicological risk assessment.

Chemical Structure: The x-ray crystallography of single crystals of potential drug molecules and protein molecules; use of multidimensional NMR to determine structures of biological molecules in solution; investigation of metal-ligand speciation using NMR methods; computation of the structure of drug molecules and proteins by electron density shape analysis; chemical structure elucidation of complex organic molecules utilizing modern spectroscopic techniques.

Electrochemistry: Studies of interfacial charge transfer kinetics; computer modeling of electrochemical processes; studies of electrochemical microsensors; the development of novel electrochemical instrumentation; altering the response of various electrodes to specific proteins or ions by modifying the electrode surface with polymer and self-assembled ultrathin films.

Materials Chemistry - Surfaces, Interfaces and Nanostructures: Design of ultrathin films with specific properties arising from the films' molecular and supermolecular structures; study of systems that selforganize in the bulk phase and at interfaces as models for fundamental biological interactions and as modifiers of solid surfaces; investigation of the kinetics and dynamics of interfacial electron transfer and ion-transfer processes such as reduction/oxidation and electrosorption at the metal/solution interface; elucidation of structure-electron transfer property relationships and sensing capabilities of self-assembled monolayers of biomolecules; characterisation of the structure and properties of nanostructured organic materials exploiting novel synchrotron spectroscopy and microscopy techniques.

Spectroscopy and Photochemistry. Spectroscopy, photophysics and photochemistry, with an emphasis on measuring structures of the electronic excited states of polyatomic molecules and the dynamics of their relaxation as a function of environment using laser methods; the applications of emission spectroscopy and excited state photophysics to solving problems in biology, biochemistry and analytical chemistry; the investigation of amphiphilic systems that form strong, noncovalent complexes with cyclodextrin systems to determine the stoichiometry of the complexes and the relative contributions of the intermolecular solute-solute and solutesolvent interactions in the formation of these stable complexes; photochemical and photophysical processes of actinide and transition-metal complexes and photooxygenation of saturated hydrocarbon compounds as well as radiolysis of transition-metal complexes and of organometallic compounds; fundamental and applied studies of the x-ray absorption spectroscopy of organic and organometallic molecules and polymers.

Synthetic Chemistry: Developing new synthetic methods and demonstrating the utility of these methods in short syntheses of chiral natural products in optically pure form; the design, development, and demonstration of new strategies for application in syntheses of natural products and their analogues; combining peptide chemistry with organometallic chemistry aimed at providing working models for reaction centers of metallo-proteins and the study of electron transfer in proteins: rationally designing assemblies to target specific DNA sequences utilizing mechanistic organic concepts, synthetic methods; the rational design and synthesis of selective antifungal agents as well as the synthesis of agronomically important phytoalexins and phytotoxins and biologically relevant secondary metabolites; the chemical synthesis and biosynthesis of enzyme substrates, pseudosubstrates, and inhibitors, as well as chemical models of enzymatic reactions.

Theoretical Chemistry: Macromolecular quantum chemistry, ranging from molecular modeling and molecular shape analysis to chirality measures, new symmetry theorems, molecular reactivity, drug design and toxicological risk assessment.

CIVIL AND GEOLOGICAL ENGINEERING

The Department of Civil Engineering offers programs leading to the Postgraduate Diploma, M.Eng., M.Sc. and Ph.D. degrees.

Graduate courses in Civil Engineering are offered in three broad areas: Transportation and Geotechnical Engineering, Structures and Materials Science, and Water Sciences.

Studies in Transportation, Geotechnical Engineering and Geo-environmental Engineering include topics on terrain evaluation, transportation systems, pavement management, geometric design, traffic engineering, physio-chemical properties of soils, frozen soils, unsaturated and swelling soils, volume change and shear strength, slope stability, saturated-unsaturated seepage, contaminant transports, solid waste management, foundation and retaining wall design.

Studies in Structures and Materials Science include topics on structural analysis, dynamics of structures, theory of elasticity, theory of plates and shells, plastic design, structural steel design, advanced reinforced concrete, prestressed concrete and concrete technology.

Studies in Water Sciences include topics on: environmental engineering, water quality, advanced water and waste treatment, water resources development, river and canal engineering, open channel flow, hydraulic structures and machinery, wave mechanics, surface hydrology, statistical hydrology.

Active research programs are conducted in several major areas: geotechnical, geoenvironmental, engineering geology, waste management in the resource industry, domestic and industrial waste management, environmental, hydrology and soil salinization, transportation and transportation economics, hydraulic structures, concrete materials, reinforced and masonry concrete, and steel composite structures.

CLASSICS

Graduate programs leading to the M.A. in Classics are available only to exceptional students on a special case basis. Prospective students, who must have an Honours degree in Latin or Greek or in a cognate discipline combined with Latin or Greek, should consult the Head of the Department of History.

COMMUNITY HEALTH AND EPIDEMIOLOGY

The Department of Community Health and Epidemiology offers a program leading to the degree of Master of Science. Applicants must hold a four-year Bachelor's degree in a discipline related to one of the Health Sciences, Basic Sciences, or Social Sciences, or from another relevant field, such as Health Care Administration. Fully qualified students are required to complete a minimum of 18 credit units of coursework, plus a thesis. The following courses are required of all students: CH&EP 800.3, 803.3, 804.3, and 805.3. Through their elective courses and thesis, students may concentrate on epidemiology and biostatistics, or on community health and health promotion.

Current research interests in the department include the epidemiology and control of cardiovascular disease, cancer, and respiratory diseases; health promotion; perinatal epidemiology; northern and Native health issues; psychosocial factors in health and health behaviour; biostatistics; and use of large administrative data files.

Please contact the Graduate Program Chair of the department for further information on the program and application procedures.

COMPUTER SCIENCE

The Department of Computer Science offers programs leading to the M.Sc. and Ph.D. degrees. The department publishes a Graduate Handbook, which describes in greater detail the graduate programs offered, the requirements and prerequisites for these programs, and potential financial assistance for students. It is available upon request from the Department of Computer Science.

Enrolment in a graduate program for Computer Science, or permission of the department, is required for admission to any of the following courses. Interested students should consult the department for the list of courses to be offered in any given year.

CONTINUING EDUCATION

See Education in this section of the Calendar.

CURRICULUM STUDIES

See Education in this section of the *Calendar*.

DRAMA

Graduate programs leading to the M.A. in Drama are available only to exceptional students on a special case basis. Prospective students should consult with the Head of the Department.

ECONOMICS

The Department of Economics has a graduate program leading to the M.A. degree. Candidates for the Ph.D. will be accepted only under special circumstances when the Department can offer a program suited to the candidate's background and wishes. The intention is that with the M.A. degree students may proceed to doctoral work or be better prepared for private employment or the public service.

The department issues a separate brochure, which is available upon request, describing in detail the nature and requirements of the graduate. Information about the graduate program is also available on the web at www.usask.ca/economics/index1.html. The department encourages students to use the email and submit their inquiries about the graduate program. The email address is grad.econ@sask.usask.ca

Master of Arts in Economics (Thesis Option)

The degree requires 15 graduate-level credit units (5 graduate courses) plus a thesis after the honours degree or its equivalent. Candidates normally require 12 months to complete the degree program provided an early selection is made of the thesis topic. Candidates whose academic background is not equivalent to an honours degree will normally require 24 months to complete the degree. All applicants are expected to have an adequate preparation in statistics. All graduate students in the program must include ECON 800, ECON 801, and a graduate course in econometrics in their degree program.

Postgraduate Diploma Requirements in Economics

The Department of Economics offers a program leading to a Postgraduate Diploma. This program is designed particularly for people who have been away from university for some time and wish to broaden their knowledge at the graduate level on subjects peculiar to their professional interests. Full-time attendance for a regular academic session (September to April inclusive), or its equivalent, is not required by the department. Research is not a basic part of such programs, although candidates may be given the opportunity to become acquainted with research techniques.

The general regulations applicable to Postgraduate Diploma Programs are:

For admission to a Postgraduate Diploma program, students must have a Bachelor's degree from a professional college or a Bachelor of Arts degree with specialization in some subject or discipline comparable to that required for a B.A. (Honours) degree from this university, and a cumulative weighted average of at least 65% in each of the final two years of their undergraduate program.

A Postgraduate Diploma program consists of 30 credit units, at least 18 of which are normally required of a Master's candidate in the same field of specialization.

A person who has received a Postgraduate Diploma may be admitted subsequently to a Master's program. Relevant course work completed to fulfill the Diploma program requirements may be taken into account in determining the requirements for the Master's program. Regular Master's admission and minimum program requirements are applicable. Students who did not meet admission requirements for a Master's program at the time of admission to the Diploma program must complete at least 6 credit units at the graduate level, in addition to the project or thesis, as part of the Master's program. There may be additional course requirements, depending upon the pertinence, level and currency of the Diploma course work. The amount of course work required will be determined on an individual basis through recommendation of the department and approval of the College of Graduate Studies and Research. All requirements for a Postgraduate Diploma must be completed within a 5-year time period. This time is measured from the date of registration in the first course work which applies to the Postgraduate Diploma program.

For further information on the Postgraduate Diploma please contact the Department of Economics.

Master of Arts in Economics (Project Option)

The degree requires 24 graduate-level credit units (8 graduate courses) plus a research paper after the honours degree or its equivalent. Candidates normally require 12 months to complete the degree program provided an early selection is made of the topic for the research paper. Candidates whose academic background is not equivalent to an honours degree will normally require 24 months to complete the degree. All applicants are expected to have an adequate preparation in statistics. All graduate students in the program must include ECON 800, ECON 801, and a graduate course in econometrics in their degree program.

Financial Assistance: All applications received before January 31 are considered for financial assistance. The value of the scholarships and teaching fellowships are currently \$ 12,000 for twelve months.

EDUCATION

The following departments and programs offer programs leading to the degree of Master of Education, and some make available Postgraduate Diploma programs. Master's degrees may be obtained by the completion of an acceptable thesis or by the substitution of prescribed courses for the thesis. Interested students may acquire information about the various programs by writing to the Associate Dean, College of Education, or to the Head of the appropriate department:

GRADUATE STUDIES & RESEARCH • Education

- Curriculum Studies (See list of areas under Curriculum Studies)
- Educational Administration
- Educational Communications and Technology (Dept. of Curriculum S
- Technology (Dept. of Curriculum Studies) • Educational Foundations, including Continuing Education and Indian and Northern Education
- Educational Psychology and Special Education
- Music Education

The Department of Educational Administration has a regular Ph.D. program. Programs leading to the Ph.D. degree in other departments are available only to exceptional students on a special case basis. Prospective students should consult with the Head of the Department.

Students' programs in Educational Foundations and Continuing Education can be arranged to permit access to the courses and faculty in both areas of study. Such programs may be designed to meet the requirements for the following:

- · Master of Continuing Education
- Master of Education
- · Postgraduate Diploma

The programs in Continuing Education meet the needs of those students whose primary interests are in Continuing, Adult, or Extension Education or Community Development. The programs in Educational Foundations are principally for students who wish to explore the anthropological, comparative/international, historical, philosophical, and sociological aspects of educational theory and practice. Special interests include moral education, critical theory, gender issues, analysis of educational policies, and multicultural education.

Each area of study has slightly different entrance requirements. For specific information, students should contact the respective graduate advisor.

GENERAL COLLEGE

These courses are offered under the aegis of the general college in order to supplement departmental program offerings. Registration is achieved through the sponsoring department.

CURRICULUM STUDIES

Courses within these programs are grouped around six foci: (1) Leadership in Curriculum, (2) Leadership in Teaching, (3) Leadership in Core Areas of Study, (4) Leadership in Educational Communications and Technology, (5) Leadership in Physical Education, and (6) Leadership in Library and Information Science. The Curriculum focus addresses curriculum design, development, implementation and evaluation. The Teaching focus concentrates on the study and analysis of teaching and professional growth and development. The Core Areas of Study focus allows students to pursue studies in the core subject areas. The Educational Communications and Technology focus allows students to study and develop expertise in distance education, instructional development, and multi-media based learning. The Kinesiology-Education focus provides a sound theoretical and

practical knowledge base in physical education pedagogy in combination with a variety of curriculum, kinesiology and administration classes. The focus of Leadership in Library and Information Science is offered in conjunction with the University of Alberta through the Western Deans' Agreement.

All six foci can be undertaken as a Master's degree with thesis or Master's degree with project. The Master's degree with thesis requires 24 credit units of course work, plus a thesis. The Master's project option requires 30 credit units of course work, plus the project. Students apply for admission through the Department of Curriculum Studies Graduate Program.

Prerequisites for graduate admission in Curriculum Studies normally includes a four year B.Ed. degree and a minimum of one year's successful teaching experience. However, in certain programs such as the Educational Communications and Technology focus, and the Physical Education subject area option, an undergraduate degree in an appropriate discipline along with successful professional experience is acceptable.

M.Ed. thesis candidates complete a thesis (EDCUR 994) and a minimum of 24 credit units including EDRES 800.3 and EDCUR 801.6 or EDCMM 802.6. Candidates for the M.Ed. project option complete a project (EDCUR 992) and 30 credit units of coursework including EDRES 800.3 and EDCUR 801.6 or EDCMM 802.6.

For courses with prefix EDCUR, the middle digit of the three digit course number designates the subject area. Courses are grouped as follows:

Adult Education

Curriculum Research and Development (090)

English Language Education (040) General Curriculum and Instruction (000) Mathematics Education (010) Science Education (020) Second Language Education (060) Social Studies (080) Teaching Effectiveness (030) For EDCMM and EDIND courses see Educational Communications and Technology and Indian and Northern Education.

Information about programs and the current research interests of faculty can be obtained by contacting the Department of Curriculum Studies.

EDUCATIONAL ADMINISTRATION

The Department of Educational Administration offers programs leading to a Postgraduate Diploma, and the Master's and Ph.D. degrees. In addition to the general regulations in the College of Graduate Studies and Research, those applying for admission to the Postgraduate Diploma and Master's programs should have completed a B.Ed or equivalent, and have a minimum of two years' related professional experience. Applicants must have a minimum average of 70% in the last 2 years of study (10 full classes or 60 credit units) for admission to the M.Ed. Applicants must have a minimum average of 65% for admission to the Postgraduate Diploma. Ph.D. applicants must complete a Miller Analogies Test or GRE.

The minimum credit units for fully qualified students are as follows:

Postgraduate Diploma Course Requirements: 30 credit units

EDADM 811 is a required course. In addition, the program must include at least five educational administration courses from the following list: EDADM 810, 812, 813, 816, 817, 820, 821, 823, 824, 825, 826, 829, 834, 835, 836, 841, 861; EDIND 820, EDIND 825.

The remaining four courses are open electives(1) and may be chosen from the above, other departments, or EDADM 892, 894 or 898. PGD students planning to complete an M.Ed. program should choose EDRES 800 as one of the open electives.

Master of Education (project) Course Requirements: 36 credit units

The required courses are EDADM 811, 990, 992 and EDRES 800. One additional research or statistics course may be taken. The program must include at least five half courses from the following list: EDADM 810, 812, 813, 816, 817, 820, 821, 823, 824, 825, 826, 829, 834, 835, 836, 841, 861; EDIND 820, EDIND 825. The remaining courses are open electives and may be chosen from the above, other departments, or EDADM 892, 894 or 898.

Master of Education (thesis) Course Requirements: 24 credit units

The required courses are EDADM 811, 990, 994, and EDRES 800 (and at least one further half course in research is highly recommended). In addition, the program must include at least four half courses from the following list: EDADM 810, 812, 813, 816, 817, 820, 821 824, 825, 826, 829, 834, 835, 836, 841, 861, EDIND 820, EDIND 825.

Ph.D. Requirements

Ph.D. candidates who have an acceptable Master's degree in Educational Administration are required to complete 21 credit units plus the thesis. Applicants whose Master's degrees are not in Educational Administration must complete at least 6 credit units of qualifying courses and then 27 credit units plus the thesis.

Year 1 Required Courses*: EDADM 881, 884, 885, 990, 996, EDRES 840

The remaining courses shall enhance the student's substantive background in Educational Administration and support the research focus of the dissertation.

*Exceptions may be made if warranted by the student's background and/or research focus. Any exceptions require the approval of the departmental members of the Advisory Committee.

Year 2: Year 2 will be devoted to completion of the compulsory Comprehensive Examination and commencement of work on the dissertation.

Course Listings

Except for core courses not all of the courses listed are offered in any one year. Additional information about the requirements for each of the programs is available from the department office.

Current areas of departmental research include: studies in leadership, administrator preparation, ethics, supervision, school effectiveness, rural education, the principalship, school and system governance, educational finance, organizational change and policy, planning and legal issues.

As a result of the Systematic Program Review, the Department of Educational Administration will be making program revisions commencing with the 2003-2004 academic year.

EDUCATIONAL FOUNDATIONS

The Department of Educational Foundations offers programs leading to the following: Master of Continuing Education, Master of Education and Postgraduate Diploma in Continuing Education; Master of Education and Postgraduate Diploma in Educational Foundations; Master of Education and Postgraduate Diploma in Indian and Northern Education.

CONTINUING EDUCATION

The Continuing Education Department has been incorporated into the Department of Educational Foundations. The EDCNT prefix signifies the distinctive content of these courses.

The programs in Continuing Education are organized to meet the needs of those whose primary responsibilities are in Continuing, Adult, or Extension Education, or Community Development. For admission to the M.C.Ed. program an applicant must have a Bachelor's degree from a professional college or the equivalent of a four-year degree in Arts and Science, 6 credit units in Continuing Education including EDPSY 453, EDCNT 410, EDCNT 420 or their equivalents which may be taken concurrently with the graduate program, and at least two years of successful experience in the field of Continuing Education. Knowledge of the concept and terminology involved in Continuing Education is necessary for the graduate student. Much of this background is derived from the social sciences and humanities. Therefore a minimum of 12 credit units is required in fields closely related to Continuing Education such as: agricultural economics, anthropology or archaeology, economics, geography, history, philosophy, political studies, psychology, sociology and theology. If the student's education background is judged to be inadequate, additional courses and/or reading may be required. For admission to the M.Ed. program an applicant must meet the general requirements of that degree.

EDUCATIONAL FOUNDATIONS

The Master of Education and Postgraduate Diploma in Educational Foundations may be in the following areas of specialization:

- Anthropology of Education
- Comparative/International/Development Education
- History of Education
- Philosophy of Education
- Sociology of Education

Special interest Areas include moral education, critical theory, gender issues,

Electrical Engineering • GRADUATE STUDIES & RESEARCH

multicultural education and analysis of educational policies.

Master of Education (with thesis)

Students are required to take at least 24 credit units, write a thesis, and spend at least one year in residence.

Master of Education (with project)

Students are required to take at least 36 credit units, including a project course (EDFDT 992), and spend at least a year in residence.

Postgraduate Diploma

Students are required to take at least 30 credit units, some of which may be undergraduate level. The course work should centre around a theme.

INDIAN AND NORTHERN EDUCATION

The Indian and Northern Education Department has been incorporated into the Department of Educational Foundations. The EDIND prefix signifies the distinctive content of these courses.

Students who wish to follow a graduate program in Indian and Northern Education should arrange for an interview through the Department of Educational Foundations. The project option may be approved for the Master of Education Degree. A Postgraduate Diploma program is also available.

Current research centres on classroom problems and teaching/learning styles, selection and development of curricular resources, intercultural attitudes and communication patterns, cultural personality development and socioeconomic adjustment to the larger society.

EDUCATIONAL PSYCHOLOGY AND SPECIAL EDUCATION

EDUCATIONAL PSYCHOLOGY

The Department of Educational Psychology and Special Education, University of Saskatchewan, is currently revising its programs in Counselling, School Psychology, and Special Education, A component of these revisions is the establishment of a fifth year of undergraduate study in Special Education. The Department anticipates the introduction of this Post-Degree Certificate in Special Education in September 2002. All applications to graduate programs in Counselling, School Psychology, and Special Education are being deferred for one year; the next intake of students into these graduate programs will be in September 2003. Individuals interested in pursuing study in these areas in the future should contact the Graduate Chair to request information regarding the proposed programs and admission prerequisites to ensure that they will meet entrance requirements. Permission of the Department Head is required for admission to all graduate courses in the department.

Note: Applications for the Masters program in Measurement and Evaluation will continue to be considered for admission in September, 2002.

Permission of the Department Head is required for admission to all graduate courses in the department. Three areas of study (concentrations) are available in the Department of Educational Psychology:

Area One: Counselling and Guidance *Area Two:* Measurement and Evaluation *Area Three:* School Psychology.

Counselling

Students are required to complete 21 credit units in Psychology/Educational Psychology/Education of Exceptional Children, including EDPSE 411, 412 and 441, or equivalent courses.

Measurement and Evaluation

Students are required to complete 21 credit units in Psychology/Educational Psychology/Education of Exceptional Children, including EDPSE 441, or equivalent courses.

School Psychology

Students are required to complete 21 credit units in Psychology/Educational Psychology/Education of Exceptional Children, including EDPSE 441, or equivalent courses.

PROGRAMS OFFERED

In each area of study, three types of programs are available. For Master's programs, *one year in residence* as a full-time student is required. In each Master's program, a student is required to take a practicum course and complete an extended practicum.

Master of Education with Thesis

 Completion of 33 credit units of course work and a thesis.

Master of Education with Project

 Completion of 42 credit units of course work and a project are required.

Post-Graduate Diploma (PGD)

 Completion of 30 credit units of course work only. May be completed on a parttime basis within 5 years of first enrolment. The practicum course is not permitted for the Diploma.

SPECIAL CASE PH.D.

In each area of study, outstanding candidates who hold a recognized Master's degree with thesis are considered for admission. It is a research degree and requires 24 months in residence. Each candidate's program is designed to meet the specific needs of the candidate while maintaining the integrity and coherence of the program consistent with the requirements of the College of Graduate Studies and Research.

SPECIAL EDUCATION

Entrance requirements for the graduate program in Special Education vary from those established by the College of Graduate Studies and Research. Applicants must have at least one year of teaching experience, have a minimum cumulative weighted average of 70% on the last 60 credit units of university study, have completed at least 9 credit units of the EDEXC undergraduate minor or equivalent, and must meet a one academic year residency requirement if applying for the M.Ed. thesis program. To receive a detailed brochure outlining department programs, contact the Graduate Program Advisor, Education of Exceptional Children.

Postgraduate Diploma

A minimum of 30 credit units is required for the award of a Postgraduate Diploma with all credits being at the 800 level. The Postgraduate Diploma is the main vehicle for the preparation of cross categorical/ resource teachers and requires the completion of 8 courses numbered 801 through 816 plus two courses from those numbered 821 through 833.

M.Ed. Degree

Both thesis and project options are available for the M.Ed. degree. The M.Ed. (thesis) program requires at least 24 credit units at the 800 level (including 6 credit units of Research methods) in addition to the writing of a thesis and one academic year of residency. The M.Ed. (project) program requires at least 36 credit units of Research methods and 6 credit units of Research methods and 6 credit units of an approved project) and does not require a residency. In addition to other course requirements, an M.Ed. degree program needs to include a complete sequence of courses in at least one of the six specialization areas.

Students may elect to complete a Master's degree program that combines the cross categorical program with an in-depth emphasis on one selected specialization area, ensuring both breadth and depth in special education training.

Graduate programs are offered in the following areas:

Cross Categorical

• Resource Teaching

- Categorical
- · Behaviour Disorders
- Language and Communication Skills
- Learning Disabilities
 Mental Retardation
- Specialist Teaching

There are three broad research interests in the department. The first area includes oral communication, developmental dyslexia, and disorders of written expression. The second relates to the development and delivery of special education services to exceptional students at the individual and community level and in teacher preparation programs. Finally, research in the area of early intervention among school age special-needs students to minimize the effects of the various handicapping conditions is also being conducted

INDIAN AND NORTHERN EDUCATION

See Department of Educational Foundations for program description. For course descriptions see Education - Indian and Northern Education in the Courses section of the *Calendar*.

MUSIC EDUCATION

The Department of Music Education offers the Postgraduate Diploma and Master of Education in Music Education. Prerequisites for admission to a program leading to a Master of Education degree in Music Education are as follows: 1) A Bachelor of Education with a Music major or a Bachelor of Music; 2) at least 36 credit units in music at the undergraduate level: 3) demonstrated proficiency in music theory, music literature and history, choral or instrumental conducting techniques, performance, and music education methods and 4) at least one year of teaching experience. The program will consist of 21-27 credit units plus the thesis, a written comprehensive after the completion of the courses, and an oral defense of the thesis. A project option is available. It consists of a research methods class plus 36 credit units in the areas of music education, performance, composition and conducting. Required courses in the Master of Education degree in Music Education are EDMUS 869 and MUSIC 841. The Postgraduate Diploma program consists of 30 credit units with at least 18 on the graduate level. Applicants should consult with the Head of the Department of Music concerning prerequisites and requirements for all graduate programs in Music Education.

Areas of research in Music Education may include Administration of School Music Programs, Curriculum Development, Methodology, Instrumental or Vocal Pedagogy, Philosophy of Music Education or Technology in Education.

Graduate students in music education have the opportunity, upon application, to serve as assistants in choral and instrumental music, history and literature, theory and music methods, and applied music. For further details, contact the Department of Music.

ELECTRICAL ENGINEERING

Postgraduate Diploma, M.Eng., M.Sc. and Ph.D. programs in Electrical Engineering are offered. The specific areas of active research are: Power system analysis, protection and control; reliability evaluation; electrical machines and power magnetics; image processing; pattern recognition and remote sensing; communication systems; instrumentation and microprocessor applications; VLSI and computer aided design; and biomedical engineering.

An applicant for a doctoral degree must have a M.Sc. from a North American university with exceptional academic standing and demonstrated research potential. Applicants with M.Sc. degrees from overseas are accepted for M.Sc. programs and are considered for proceeding towards Ph.D. degrees on successful completion of the M.Sc. Postgraduate Diploma students are considered for acceptance in Master's programs on the completion of the diploma program.

Applicants for advanced degrees in Electrical Engineering are advised to start graduate programs at the beginning of the Regular Session in September. Courses given in the second term are generally in continuation of those given in the first term.

The M.Sc. program consists of at least 15 credit units of graduate level courses plus a thesis. The Ph.D. program consists of at least 6 credit units plus a thesis. Some of the courses listed are specialized in nature and are only given when there is sufficient

GRADUATE STUDIES & RESEARCH • Electrical Engineering

demand. All graduate students are required to take E E 990 - Seminar in which each student is required to 1) make a presentation from his research to students and faculty and 2) participate in the discussions that follow each presentation.

ENGLISH

The Department of English offers graduate studies in literature leading to the M.A. and Ph.D. degrees. Its faculty engages in a wide range of literary research from Old English to postcolonial, aboriginal and women's literatures, and in interdisciplinary cultural studies. Courses from the list below are offered on a rotational basis in two- to three-year cycles and special topics courses, usually reflecting current research interests of faculty, are offered most years.

M.A. candidates must be in residence for at least one academic year, demonstrate an intermediate reading knowledge of a language other than English, and successfully complete 18 credit units of course work and a thesis. Ph.D. candidates must be in residence for at least two academic years, complete 18 credit units of course work (and ENG 801 if not previously taken), and pass field examinations in their area of specialization. They must also demonstrate advanced knowledge of one language other than English relevant to the dissertation area, or intermediate knowledge of two languages other than English, at least one of which must be relevant to the dissertation area, and successfully defend a dissertation.

ENVIRONMENTAL ENGINEERING

The Division of Environmental Engineering is an interdepartmental and an interdisciplinary association of faculty based in the College of Engineering. Through the College of Graduate Studies and Research, the Division of Environmental Engineering offers postgraduate programs leading to the Postgraduate Diploma, M.Eng., M.Sc. and Ph.D. degrees.

The expectations of society and direct pressure from industry have generated a demand for the technical ability to solve a wide range of environmental problems. It is difficult to provide a concise definition of environmental engineering because it covers such a wide spectrum of problems. For example the following are some areas of study in environmental engineering that could be pursued by students in the Division of Environmental Engineering:

- Waste water treatment and disposal for municipal systems
- Water supply for human and industrial consumption
- Wind engineering and atmospheric dispersion of pollutants;
- Industrial waste from manufacturing and processing
- Waste management from mining and the petroleum recovery
- Groundwater contamination, remediation
 and containment
- Surface water management and pollution control

 Reduction in toxic emissions from forest products and pesticide plants
 Automobile emissions and alternative

- fuels

 Building energy conservation
- Building energy conservation
 Agricultural practices, fertilizers, feedlots, etc.
- Development of energy alternatives and energy conservation
- Improving efficiency of manufacturing
- processesUrban land use

In addition to course work, submission of a research thesis is required for the M.Sc. and Ph.D. students. Candidates for the M.Eng. are required to submit a final report for their project.

In addition to various specialized courses students may take courses offered by other colleges and departments. These courses may be selected in consultation with the chair and supervisor.

ENGINEERING PHYSICS

See Physics and Engineering Physics.

FOOD SCIENCE

The Department of Applied Microbiology and Food Science offers M.Agr., M.Sc. and Ph.D. programs in Food Science. Faculty members in other departments, including Agricultural and Bioresource Engineering, Chemistry, Crop Science and Plant Ecology, and the Division of Nutrition and Dietetics, also contribute to these programs. Research generally involves basic chemistry, microbiology and unit processes applied to food systems; it may also be commodity based, with current emphasis on grains, edible oils, meats, and honey and native fruits.

FRENCH

The Master's program in French for students who have Honours in French from this university, or equivalent qualifications, consists of 18 credit units to be chosen in consultation with the department and the preparation of a suitable thesis. Missing prerequisites must be made up by taking suitable undergraduate courses which will not be counted as part of the 18 credits. Courses, essays, thesis and defense are in French.

GEOGRAPHY

The Department of Geography offers graduate programs leading to M.A., M.Sc. and Ph.D. degrees. Research is encouraged in both human and physical geography. While the department can accommodate a wide range of research interests, thesis topics traditionally have been formulated within a northern Canada or Prairie setting, and have fallen into one of the following areas of specialization: geographic information science, cultural geography, development geography, locational analysis, population and spatial interaction, urban geography, biogeography, geomorphology, and hydrology.

GEOLOGICAL SCIENCES

The Department of Geological Sciences offers programs leading to the M.Sc. or Ph.D. degrees and to the Postgraduate Diploma. Active research is being pursued in the following fields: geochemistry, mineralogy, igneous and metamorphic petrology, mineral deposits, sedimentology, structural geology, paleontology (including invertebrate and vertibrate paleontology, ichnology, palynology and palaeobotany), stratigraphy, history of geology, applied geophysics (including seismology and gravity and electrical methods), hydrogeology and environmental geology.

In order to promote opportunities for research, the department maintains close ties with other science and engineering departments, the National Water Research Institute, the Saskatchewan Research Council, the Saskatchewan Geological Survey, and various resource and exploration companies.

GEOL courses numbered 433, 435, 437 and 439, described in the Arts and Science section of the *Calendar*, may be accepted for credit by the College of Graduate Studies and Research upon recommendation of the department.

GERMAN

Students may be accepted into a Master of Arts program in Germanic Languages on an individual basis. Programs are planned for each student in relation to the direction of the student's interests and in areas in which the faculty is competent to provide direction. Courses are offered on a seminar basis. Students who have an Honours degree from this university, or equivalent credits, must complete two seminar courses and a thesis.

Prospective students should consult the Department of Languages and Linguistics concerning possible areas of concentration.

HERD MEDICINE AND Theriogenology

See Large Animal Clinical Sciences under Veterinary Medicine in this section of the *Calendar*.

HISTORY

The Department of History offers graduate programs leading to the degrees of Master of Arts and Doctor of Philosophy. The Master of Arts Degree may be taken in selected fields in the history of Canada, the Americas, Britain and the British Empire, Medieval and Modern Europe, the Ancient World, and the Far East. The Doctor of Philosophy Degree may be taken in selected fields of the history of Canada, Europe, and Britain and the British Empire. The program leading to the M.A. degree normally consists of two seminars, (12 credit units), and the preparation of a thesis. A fully-qualified student can complete these requirements in one academic year (September to April and the following summer). All M.A. candidates must meet a second language requirement.

The prerequisite for admission into the Ph.D. program is an M.A. degree in history or its equivalent. Upon admission, students must possess a minimum history average of 80% in thesis M.A. courses, have their previous written work scrutinized by the department, and present a specific thesis proposal, demonstrating a student's ability and commitment, without, however, placing the department under the obligation of agreeing to accept this proposal. Ph.D. theses can only be written in areas where the department possesses special expertise and library resources. In any case most Ph.D. students would have to do research outside the province.

Ph.D. dissertations can be written in selected areas of the following fields.

- Western Canadian History
- Canadian General History Since 1700
- Early Modern Europe, 1400 to 1789
- Modern Europe, 1800 to Present
- Britain

Students will be examined in the comprehensive examinations on their major and two minor fields in April or the following September of their second year of study. Ph.D. students are required to take 12 credit units of classes at the graduate level.

Students are required to demonstrate reading competence in a second language, and other languages as are necessary for the proper conduct of research. When a student's thesis is in Canadian history, the second language must be French. Language examinations are to be taken by the end of February of a student's first year. Students whose theses require special skills must demonstrate competence before proceeding with their theses.

INDIAN AND NORTHERN EDUCATION

See Education - Educational Foundations, in this section of the *Calendar*. Courses are listed under Education - Indian and Northern Education.

INDIVIDUAL INTERDISCIPLINARY GRADUATE PROGRAMS

The College of Graduate Studies and Research encourages re-alignment of traditional disciplines into new patterns, crossing department and college boundaries where this will foster new areas of learning. To facilitate this the College of Graduate Studies and Research provides opportunities for students to develop INDIVIDUAL INTERDISCIPLINARY PROGRAMS leading to the PGD, M.A., M.Sc. and Ph.D. degrees. Information on the academic requirements for these degrees is provided under designated sections in the Graduate Studies and Research section of this calendar.

Students in interdisciplinary graduate programs are not restricted by traditional academic boundaries.

Many departments and colleges have graduate programs that allow sufficient flexibility to students to complete an interdisciplinary program while enjoying affiliation with an established academic unit. Individual Interdisciplinary Graduate Programs are not intended to compete with or replace these programs.

The individual interdisciplinary graduate program is administered by the College of Graduate Studies through the Interdisciplinary Studies Committee. Students interested in graduate interdisciplinary programs are advised to consult with the Chair of the Interdisciplinary Studies Committee for information on program requirements and on the procedure to be followed in developing their program proposal.

The student is responsible for developing the program proposal and providing all documentation outlining the specific details of the program proposal (e.g. program supervisor, members of advisory committee, course descriptions including complete details on INT D 898 - Special Topics and INT D 990 - Seminar courses, detailed research proposal identifying the expected outcome of project and approval from the Ethics Committee, sources of support - financial and physical, and any other details the Chair or Committee may require). In the case of the INT D 990 -Seminar course, students are expected to participate in an annual "Seminar Day" sponsored by the Interdisciplinary Studies Committee, as well as participate in specific seminars designated by the student's supervisor. The program proposal must identify proposed courses to be taken at other institutions and sources of funding to support related travel. The completed program proposal will be reviewed by the Chair of the Interdisciplinary Studies Committee, and if acceptable, will be submitted to the Interdisciplinary Studies Committee for approval. To be considered "interdisciplinary", the proposed program must integrate course work and research into a concise program that is not available within the traditional academic setting. As well, the proposed program should not attempt to provide a graduate studies opportunity within a discipline where such graduate studies opportunities are not currently available.

KINESIOLOGY

The College of Kinesiology offers programs leading to a Postgraduate Diploma, a Master of Science, and a Doctor of Philosophy. A Master of Education in pedagogy is offered jointly with the College of Education.

Students with an undergraduate degree in kinesiology or a relevant field can be

admitted directly to the PGD and M.Sc. programs. Students whose undergraduate training is in an area other than kinesiology are usually required to take additional undergraduate course work. Those seeking admittance to the doctoral program must hold a recognized Master's degree in a relevant field.

The Postgraduate Diploma is specific to the field of exercise management and applied kinesiology and is designed to be completed in one calendar year of study. Students who enter fully qualified must complete 30 credit units, 18 of which must be at the graduate level. While there is no thesis requirement, the PGD has a significant practicum component. Students must complete 21 required credits: KIN 470, 803, 809, 840, 850, and PATH 205; and 9 specified elective credits.

A Master of Education is available jointly through the College of Kinesiology and the Department of Curriculum Studies in the College of Education and offers a specialization in physical education pedagogy. Students' programs will be individually designed and developed and will include the following required courses: EDCUR 801; EDRES 800, KIN 860, KIN 861, and EDCUR 990.

The Master of Science program is linked to the sport and exercise science research interests in the college: biomechanics, exercise physiology, growth and development, health and physical activity, body composition, motor control, nutrition and physical activity, and sport and exercise psychology. Fully qualified M.Sc. students are required to complete KIN 801, 900, 994 plus 12 other credit units. Depending on the area of study, at least 6 or 9 of these 12 credit units must be at the 800 level within the College of Kinesiology.

Doctoral students are required to complete at least 6 credit units as well as KIN 990 and 996.

LAW

The College offers programs of study leading to a Master of Laws degree in areas of public and private law. Admission to undertake studies in a particular area of the program will depend upon the availability of faculty supervision in that area. Every effort is made to structure the programs to meet the needs of the individual student. Candidates are required to complete a minimum of 9 credit units, 3 of which must be in Legal Theory. An individual directed research project (3 credit units) may be undertaken in lieu of a course. With faculty approval, one of the required courses may be taken outside the College of Law in an associated discipline. All students must undertake original research leading to a thesis of publishable quality. The program ordinarily takes one to two years to complete. Receipt of the LL.M. degree does not qualify a student for admission to the Bar in Canada.

Application for admission should be submitted to the Chair of the Law Graduate Studies Committee prior to the end of February. The requirement for admission is a LL.B. degree or equivalent.

Studies in the Native Law and Co-operative Law areas are normally undertaken in association with the University of Saskatchewan Native Law Centre and the Centre for the Study of Co-operatives.

The College of Law makes available a scholarship fund for outstanding applicants.

LINGUISTICS

Students may be accepted in a Master of Arts program in Linguistics on a special case basis. Individual programs are planned for each student in relation to the direction of the student's interests and in areas in which the faculty is competent to provide direction. Linguistics may be combined with one of the languages offered in the department, e.g., Linguistics and Ukrainian, Linguistics and Russian, etc. Courses are offered on a seminar basis. Students who have an Honours degree in Linguistics or equivalent credits must complete a minimum of 15 credit units and a thesis.

MARKETING

The Department of Management & Marketing offers a graduate program leading to the M.Sc. degree in Marketing. The M.Sc. program for fully qualified students (undergraduate Marketing major or equivalent) requires a minimum of 15 credit units of approved graduate courses plus the preparation and successful defence of a thesis. Students are matched with thesis supervisors in areas of mutual interest upon admission to the program. Prospective students should consult with the Head of the Department concerning the availability of programs in specific subject areas.

MATHEMATICS AND STATISTICS

The Department of Mathematics and Statistics offers M.Math, M.Sc. and Ph.D. degrees with specialization in the areas of algebra, applied mathematics, analysis, probability, statistics and topology. The M.Sc. degree requires a minimum of 18 credit units of course work and a thesis. The Ph.D. degree requires course work beyond the M.Sc. level. Ph.D. candidates in all areas of specialization must write qualifying exams to demonstrate knowledge in any three areas of algebra, analysis, applied mathematics, probability-statistics or topology.

MECHANICAL ENGINEERING

The Department of Mechanical Engineering offers graduate programs leading to the M.Eng., M.Sc. and Ph.D. degrees in various disciplines of Mechanical Engineering including: Applied Mechanics, Metallurgy, Fluid and Thermal Sciences and Control Systems. Multidisciplinary studies are encouraged with the cooperation of other departments. Experimental and theoretical investigations are carried out using a large number of research instruments and computer systems.

MICROBIOLOGY AND Immunology

The Department of Microbiology and Immunology offers graduate programs leading to the M.Sc., and Ph.D. degrees. Current research carried out in the department deals with the following topics. Pathogenesis/Infectious Diseases: clinical bacteriology, infections of immunecomprised patients; immunodiagnostic/immuno-therapeutic approaches to bacterial infections, medical virology, development of rapid viral diagnostic methods. Tumor Biology/Immunology: tumor metastasis, molecular tumor immunology, Molecular Genetics/Microbial Physiology: molecular regulation of virulence factors in pathogenic bacteria, development of DNA-based molecular probes for rapid diagnosis of pathogens, genetic regulation of gluconeogenic enzymes, catalytic and regulatory mechanisms of microbial enzymes, chromosomal rearrangements. carcinogenesis, chemical mutagenesis, mutagenic mechanism, DNA alkylation damage and repair in eukaryotes, and mechanism of replication initiation. Immunology/Virology: molecular and cellular mechanisms responsible for selfnonself discrimination and immune class determination, cellular and molecular interactions involved in lymphocyte activation and differentiation, molecular basis of cytomegalovirus infection and the development of effective vaccines, immunochemistry of viral antigens and humoral and cellular immune responses. virus induction of autoimmune T cells, and immunoassay detection of microbes in laboratory and industrial settings.

M.Sc. students are required to take a minimum of 9 credit units of classes, of which 6 credit units must be acquired by taking 800-level classes. Ph.D students with a Masters degree are required to take a minimum of 6 credit units of classes, of which 3 credit units must be acquired by taking 800-level classes. Ph.D students who transfer from a Masters degree without completing the Masters degree are required to take a minimum of 15 credit units of classes, of which 9 credit units must be acquired by taking 800-level classes Depending on their background training students may be required to take more than the minimum number of credit units if deemed necessary by the department head.

MUSIC

The Department of Music offers graduate programs in composition, music theory, musicology, and performance leading to the degree of Master of Music. For graduate programs in Music Education see entry under Education. The special case Master of Arts degree allows graduate students to

Music • GRADUATE STUDIES & RESEARCH

GRADUATE STUDIES & RESEARCH • Music

combine music seminars with graduate classes from a cognate field of study. Graduate programs leading to the Ph.D. degree are available to students only on a special case basis.

The Master of Music programs in composition, music theory, and musicology require 18 course credits plus a thesis. The Master of Music program in performance requires 18 course credits, a recital, and a document. All areas of concentration also include the successful completion of a comprehensive examination and a foreign language. The normal time for completion of the Master of Music degree is two years, including a oneyear residency. There will be no admissions to Music in 2002-2003.

MUSIC EDUCATION

See Education in this section of the Calendar.

NATIVE STUDIES

The Department of Native Studies offers a graduate program leading to the Master of Arts degree. A department prospectus on the program is available on request.

Master of Arts in Native Studies

Admission requires an Honours degree in native studies. Students from allied social science or humanities areas, or from other fields where there has been a focus on Native peoples, will also be continued.

All students in this program are required to complete 18 credit units of course work plus a thesis. Required courses are NATST 802 and 803. Students must also register in NATST 990 for one year.

NURSING

The College of Nursing offers a program leading to a Master of Nursing (M.N.) degree. Both a thesis and project option are available as well as specialization in clinical nursing, teaching in nursing or nursing administration. The thesis program consists of 21 credit units plus thesis while the project program consists of 30 credit units including the project course.

Thesis research will normally emphasize a clinical nursing, health system, or nursing educational problem. Current research interests of the faculty include: psychogerontological issues, management of pain and other clinical issues, risk factors for specific diseases, issues in nursing education, and health promotion.

Admission requirements to the program include: a Bachelor's degree in nursing or equivalent, current registration as a nurse in a Canadian province or the territories, the equivalent of 3 credit units in each of statistics and research methods at the undergraduate level, as well as recent nursing experience of at least one full year.

NUTRITION

The Division of Nutrition and Dietetics within the College of Pharmacy and

Nutrition offers programs in graduate studies leading to an M.Sc. degree in Nutrition in the areas of clinical nutrition, community nutrition, nutritional biochemistry, dietary assessment and nutritional epidemiology, nutrition education, nutrition intervention, food biotechnology issues and foodservice administration. Graduate programs leading to the Ph.D. degree are available to exceptional students on a special case basis. The Division also participates in the Food Science and Toxicology graduate programs.

Students in the M.Sc. program are required to complete 15 credit units as well as the Seminar (NUTR 990) and Research (NUTR 994) courses. Students in the Ph.D. program require completion of 6 credit units as well as the Seminar (NUTR 990) and Research (NUTR 996) courses.

Examples of research activities include: trends in dietetics and nutrition; dietitians' attitudes towards private practice; nutrition entrepreneurship in Canada; food security issues in preschool population; nutrition intervention programs: socio-political explanations, peer education interventions and evaluation; enhancing foodservice provision in institutional settings; nutritional influences on antioxidant defense as a mechanism for reducing disability associated with stroke; nutritional regulation in the central nervous system; effects of nutrients on eye morphology and function as a means of preventing birth defects and degeneration; effects of proteins and salts on calcium metabolism; dietary assessment of children; nutritional needs of elderly in long-term care: amino acid and organic acid metabolism; energy requirements, body composition and nutrient intakes in children with cerebral palsy and spina bifida; nutrition attitudes and practices of the elderly, individuals with fibromyalgia, and of caregivers of children with cerebral palsy.

Collaborative graduate opportunities exist with other health science and science departments on campus, health districts and related agencies.

For more information, please see the College of Pharmacy and Nutrition website www.usask.ca/Pharmacy-Nutrition or contact the College.

PATHOLOGY

The Department of Pathology offers programs of graduate studies leading to the Certification and Fellowship of the Royal College of Physicians and Surgeons of Canada in the specialties of Laboratory Medicine. The Department of Pathology also offers M.Sc. and Ph.D. programs in the areas of Anatomic. Biochemical. Haematopathology and Experimental Pathology. Research activities include role of oxygen free radicals in various clinical diseases, biochemical mechanisms of signal transductions, oncogenes and antioncogenes in hemopoietic malignancies, use of computers in laboratory medicine, lipid studies, toxicology, immunoassays, forensic pathology, breast pathology medical-legal relationship and bio-ethics,

and molecular biology of carcinoma. Brochures describing detailed research interests are available from the Department of Pathology. A recognized undergraduate degree such as M.D., D.V.M. or B.Sc. is required for admission to the programs. The requirement for M.Sc. and Ph.D. programs will be established by the College of Graduate Studies and Research Office.

PHARMACOLOGY

The Department of Pharmacology offers graduate programs leading to the M.Sc. and Ph.D. degrees. The M.Sc. program for fullyqualified students requires a minimum of 15 credit units of approved graduate courses (usually at the 800 level) while the Ph.D. program requires at least 6 additional credit units above the M.Sc. degree or a total of 21 credit units. Research opportunities are available in the following areas: cancer molecular biology and chemotherapy; cardiovascular and endocrine pharmacology; clinical pharmacology; drug metabolism and pharmacokinetics neurochemistry; neuropharmacology; and psychopharmacology.

PHARMACY

The Division of Pharmacy in the College of Pharmacy and Nutrition offers graduate programs leading to the M.Sc. and Ph.D. degrees in various disciplines of Pharmacy including: Biopharmaceutics/ Pharmacokinetics, Clinical Pharmacy, Medicinal/Pharmaceutical Chemistry, Molecular Biology/ Biotechnology, Pharmaceutics, Pharmaceconomics, Pharmacoepidemiology and Toxicology. The Division also participates in the Toxicology graduate program.

Students in the M.Sc. program are required to complete 15 credit units as well as the seminar (PHARM 990) and Research (PHARM 994) courses. Students in the Ph.D. program require completion of 6 credit units as well as the seminar (PHARM 990) and Research (PHARM 996) courses.

Examples of research activities include cellular and molecular neurobiology, chemoprevention, consumer behaviour, drug clearance mechanisms, drug metabolism and disposition, drug delivery systems, drug information, infectious disease, nonpresecription drugs, organization of health care providers, pharmaceutical analysis, pharmaceutical biotechnology, pharmacoconomics, pharmacokinetics, pharmacy practice, psychopharmacology, and toxicology.

Collaborative graduate opportunities exist with other health science and science departments on campus, health districts and related agencies and research institutes and companies located in Innovation Place. The Canadian Light Source, to open in 2003, will provide additional opportunities for discovery in pharmaceuticals and biotechnology.

For more information, please see the College of Pharmacy and Nutrition website www.usask.ca/Pharmacy-Nutrition or contact the College.

PHILOSOPHY

The Department of Philosophy offers a graduate program which leads to the Master of Arts degree. To earn the M.A. degree students must successfully satisfy the requirements below.

Students must complete 15 credit units of course work and prepare a suitable thesis. All students must register in the Graduate Seminar 990 in their resident year. The department will offer a limited number of courses each year. The list to be offered in coming years is available in the department after January 1. Residency for the degree is one year, though it is usual for students to take 1 1/2 to 2 years to complete the degree. Students will normally complete their course work in the first year. If required by their thesis topics and as determined by the Graduate Committee, students must demonstrate a reading knowledge of a language other than English.

Admission to the program requires an Honours degree in Philosophy, awarded by this university, or its equivalent. Students with particularly strong academic credentials who do not meet this requirement may be accepted on the condition that they complete senior undergraduate courses to make up deficiencies as required by the department.

PHYSICS AND ENGINEERING PHYSICS

The Department of Physics and Engineering Physics offers graduate programs leading to M.Sc. and Ph.D. degrees in Physics or Engineering Physics.

M.Sc. candidates must successfully complete 12 credit units of approved course work, including PHYS 811.3 or PHYS 883.3 and PHYS 812.3, a thesis, and pass a comprehensive examination in their area of specialization within 12 months of entering their graduate program. Depending on their background preparation and route of entry into a Ph.D. program, candidates must successfully complete between 9 credit units and 21 credit units of approved course work, including PHYS 811.3 or PHYS 883.3 and PHYS 812.3 if not previously taken. They must also pass a comprehénsive examination in their area of specialization within 12 months of entering their graduate program and successfully defend a dissertation.

PHYSIOLOGY

The Department of Physiology offers graduate programs leading to the Master's and Ph.D. degrees. Research opportunities are available in the following areas: gastrointestinal physiology; liver development and function; comparative respiratory and cardiovascular physiology; thermoregulation (neural control, cellular physiology of brown adipose tissue); cell cycle dynamics; neurophysiology (electrophysiology, cellular imaging in neurons and glial cells, in vitro and in vivo studies of cerebral ischemia); vascular function, ion channels and endogenous gases; calcium channels and exocytotic secretion; and transgenic models in cardiovascular diseases. Opportunities are also available for collaborative training with faculty in clinical departments of the College of Medicine.

PLANT SCIENCES

The Department of Plant Sciences offers programs leading to the Postgraduate Diploma, M.Agr., M.Sc., and Ph.D. degrees. These programs provide training in all aspects of Plant Science including agronomy, biodiversity, biotechnology, crop quality, horticulture, plant breeding, plant ecology, plant pathology, plant physiology and weed science. Many members of nonuniversity institutions on campus, including Agriculture and Agri-Food Canada and the Plant Biotechnolgoy Institute/NRTC, are Adjunct Professors and graduate students can also carry out their thesis research in these institutions. See web site at www.usask.ca/agriculture /plantsci/

Postgraduate Diploma and M.Agr. candidates must complete 30 credit units of approved course work. M.Agr. students must also complete PL SC 992.6. The M.Sc. degree requires 15 credit units of approved course work, PL SC 990, an oral comprehensive exam and a thesis. The Ph.D. degree requires a minimum of 21 credit units, of which 15 credit units may be transferred from an approved M.Sc. program in a related research area, PL SC 990, an oral comprehensive exam and completion of a Ph.D. dissertation.

POLITICAL STUDIES

MASTER OF ARTS IN POLITICAL STUDIES

Students are required to take 15 credit units of courses and write a thesis of 75 pages in length. Course requirements include:

• POLST 818.6

• 6 credit units from two of the following areas: Canadian Government and Politics (POLST 809.3); Political Theory (POLST 839.3 or 859.3); International/Comparative (POLST 849.3 or 869.3)

• 3 additional credit units from the other graduate courses

POLST 990 (pass/fail credit)

Course offerings will vary from year to year, depending upon student demand.

PSYCHIATRY

The Department of Psychiatry has a graduate program leading to an M.Sc. or to a Ph.D. in Neuropsychiatry. Extensive facilities exist to support basic and clinical research in psychiatric and neurological disorders. The current research includes: study of the mechanisms of and potential treatments for psychiatric and neurodegenerative disorders such as Schizophrenia, Parkinson's and Alzheimer's Diseases, and acute neurological conditions such as stroke and ischemia; search for neurotrophic factors involved in neuronal protection, survival and rescue; molecular biological studies on neurotrophic factors, enzymes and receptors; gene regulation of monoamine synthesizing and catabolizing enzymes; investigations on biological markers and of the correlations between mood or behavior and the levels of neurochemicals in body fluids; clinical studies on the effects of psychiatric drugs on neurotransmitters and metabolites; studies of the uptake, release, binding and signal transduction mechanisms of a variety of CNS transmitters and modulators, drugs and ligand binding; studies of the enzymes involved in synthesis and catabolism of neuroactive compounds; role of alcoholmetabolizing enzymes in the development of alcoholism; cell-cell interactions; cerebrovascular functions. Neuropsychiatry (PSIAT 850.6) is a core class and must be taken by all students. The number of credit units required for a Master's degree is 15, and for a Ph.D, 21.

PSYCHOLOGY

Graduate programs are offered in three main areas: clinical psychology (Ph.D.), applied social psychology (M.A. and Ph.D.), and basic behavioural science (M.A. and Ph.D.).

The Doctoral Program in Clinical Psychology is accredited by both the Canadian Psychological Association and the American Psychological Association. It follows a scientist-practitioner model, blending scholarly research with professional skill training. The program trains clinical psychologists for employment in academic, research, clinical, community, and private practice settings. Admission requires a B.A. (Hon.) degree or equivalent in psychology; in special cases students may be accepted for advanced standing after they complete a master's degree in another program. Professional skill training in psychological assessment and intervention begins early in the program and continues over the five years of the program. Courses in basic areas of psychology, statistics and research methodology, and research leading to a Ph.D. dissertation are required. The master's degree is not normally awarded; students transfer from the M.A. program into the Ph.D. program after one year, following successful completion of first year courses and an outline of the proposed dissertation research. Coursework in the program comprises 51 credit units plus four practicum placements and a full-year predoctoral internship in clinical psychology.

The Applied Social program trains students to work as researchers/consultants within government, business, and community organizations. It is unique in its focus on applied research and the inclusion of two research practica and one four- month research internship for each degree. Most students require at least two years to complete the M.A. and three more years to complete the Ph.D. In addition to the practica (PSY 902) and clerkship (PSY 903), the required courses at the M.A. level are: 805; 807; 810; 811; 806 or 808; and 9 credit units of electives. At the Ph.D. level students complete two more practica (PSY 902) and another clerkship (PSY 903). The required courses are: 862 and 863; 890 or

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891; 806 or 808; and 9 credit units of electives. Faculty supervise applied research, training, and consulting activities relevant to organizational functioning and the development of health, mental health, and criminal justice programs.

The Basic Behavioural Science Graduate Program is intended for students who wish to focus primarily on basic research and theoretical issues, as opposed to applied training. Programs of study can be tailored to the needs of students interested in brain and behaviour, developmental, neuropsychology, cognitive and social psychology with statistics and basic area courses required for all students.

The Master's degree requires at least 15 credit units and a thesis and may be completed within one year, although most students take longer. The Master's thesis research will be designed in consultation with each student's advisory committee early in Year 1. One goal of the Master's thesis research is the production of a "publishable unit" of substantial research in the first year of study. The document presenting this research constitutes the qualifying exam for transfer to Ph.D. The qualifying examination will be written in the format of a paper to be submitted for publication following American Psychological Association style (with any necessary appendices requested by the committee). Advisory committee members will evaluate the examination paper. The paper will not be filed with the College of Graduate Studies and Research, nor with the University Library, but a Departmental copy will be retained. At the end of the first year of Master's studies, students who qualify, based on course and research performance, will be recommended for transfer to the Ph.D. program.

For students who do not transfer to Ph.D. studies, the research conducted in connection with the qualifying exam normally will form the basis of the master's thesis to be completed in the second year. For students who do transfer to the Ph.D., the research conducted in connection with the qualifying exam normally will become part of the Ph.D. dissertation. In addition to the dissertation, the Ph.D. requires completion of at least 6 additional credit units of course work beyond that required for the Master's degree and comprehensive examinations. For students who transfer to the Ph.D. program after the first year of studies, the minimum period to complete the program is 2 years. Recommendation for transfer to Ph.D. (Form 206) will be accompanied by a new program of study corresponding to the requirements for the Ph D

Further information about the graduate programs such as admission requirements, application forms, financial aid, and faculty interests is contained in a brochure, Graduate Studies in Psychology, available from the department.

REHABILITATION MEDICINE

Graduate programs leading to the M.Sc. degree in Rehabilitation Medicine are

available only to exceptional students on a special case basis.

Prospective students should consult with the Head of the Department concerning the availability of a program in their area of interest.

Research may be taken in the department in several areas:

- Study and analysis of gait patterns
- Measurement of physical therapeutic
- approaches to reduction of disability • Use of environmental controls for severely disabled
- Quality control and outcome analysis of rehabilitation process
- Epidemiological studies of specific
- groups of disabled in Saskatchewan
- Biomedical engineering rehabilitation topics in prosthetics, orthotics, etc.
- topics in prostnetics, orthotics, etc.

RELIGIOUS STUDIES

The special M.A. in Religious Studies is an individually tailored program to prepare students for admission to other Religious Studies Graduate Programs leading to a Ph.D. degree. Students entering into a special M.A. in the Religious Studies Program may opt for either Western Religious Traditions or Eastern Religious Traditions as the area of specialization. The Department of Religious Studies offers a special case Master of Arts program to exceptional students with a B.A. (Honours) in religious studies or its equivalent. Individual students interested in pursuing a special case M.A. in religious studies should consult with the Head of the Department regarding the possible subareas of specialization currently available in the department.

SLAVIC STUDIES

Students may be accepted into a Master of Arts program in Slavic Studies on a special case basis. Individual programs are planned for each student in relation to the direction of the student's interests and in areas in which the faculty is competent to provide direction. Courses are offered on a seminar basis. Students who have an Honours degree from this university, or equivalent credits, must complete two seminar courses, plus a thesis.

Prospective students should consult the Department of Languages and Linguistics concerning possible areas of concentration.

SOCIOLOGY

The department offers a thesis and a project program leading to the M.A. and Ph.D. in Sociology. The requirements for both programs generally conform to those of the College of Graduate Studies and Research.

A prospectus for Graduate Students in Sociology, which describes in greater detail the nature, requirements and potential financial assistance for graduate students, is available upon request from the Department of Sociology.

The department areas of specialization include: • Agriculture and Development

GRADUATE STUDIES & RESEARCH • Sociology

- Criminology and the Sociology of Law
- · Education and Work
- · Family and Women's Studies
- Race and Ethnic Relation

The course and other requirements for the two M.A. degree programs are outlined below.

MASTER OF ARTS IN SOCIOLOGY (WITH THESIS)

All students in this program are required to complete a minimum of 18 graduate credit units including SOC 840 and 841. The electives are selected in Sociology in consultation with the candidate's thesis Advisory Committee and the Department of Sociology.

MASTER OF ARTS IN SOCIOLOGY (WITHOUT THESIS)

Students admitted to the project program are required to complete a minimum of 36 graduate credit units including SOC 840, 841 and 992 Research Project to which a weight of 6 credit units is assigned. The electives are to be selected in Sociology in consultation with the candidate's Advisory Committee and the Department of Sociology. A maximum of 6 credit units may be taken in a related discipline outside Sociology with the permission of the Advisory Committee and the Department of Sociology.

PH.D. IN SOCIOLOGY

The purpose of the Ph.D. program is to train students as scholars and specialists in the field of Sociology. In addition to mastering a broad knowledge of Sociology, Ph.D. students should acquire expertise in particular areas of research. In the first two vears of the program, students are expected to complete the course requirements as well as to develop a proposal for dissertation research. The last years of the program are devoted to original research by the student under the guidance of the supervisor and the Advisory Committee. Students who graduate from the program must develop an intellectual maturity that is demonstrated in the ability to conduct independent research that results in a defensible doctoral thesis that meets the approval of the Examining Committee.

Note: Graduate students are normally not allowed to register in and receive credit for an 800 level course for which they have received credit at the 400 level.

Written permission of the Department Head and course instructor is required before graduate students in disciplines other than Sociology will be allowed to register.

SOIL SCIENCE

The Department of Soil Science and the Saskatchewan Centre for Soil Research provide research opportunities in the following fields: soil mineralogy, genesis and micro-pedology, landscape-scale soil processes, soil microbiology, dynamics of soil organic constituents, soil fertility-plant nutrition, soil-plant-water relationships, soil structure, physical chemistry of soil solutions and inorganic soil constituents, soil biochemistry, interrelationships of soil and the environment, and several areas of soil management.

The department offers programs leading to the Postgraduate Diploma and requires 30 credit units of course work; and the M.Agr., M.Sc., and Ph.D. degrees. The M.Agr. degree requires a minimum of 30 credit units of classes and the completion of SL SC 992.6. The M.Sc. degree consists of a minimum of 15 credit units and completion of the M.Sc. thesis. The Ph.D. program requires a minimum of 21 credit units, of which a maximum of 15 credit units may be transferred from an approved Master's program in Soil Science, and completion of a Ph.D. dissertation.

SPANISH

Students may be accepted into a Master of Arts program in Spanish on a special case basis. Individual programs are planned for each student in relation to the direction of the student's interests and in areas in which the faculty is competent to provide direction. Courses are offered on a seminar basis. Students who have an Honours degree in Spanish or equivalent credits must complete a minimum of 15 credit units and a thesis.

SURGERY

Graduate programs leading to the M.Sc. degree in Surgery are offered to qualified students. Prospective candidates should consult with the Head of the Department concerning programs and research projects. Fields of interest follow:

 Cardiovascular field - studies on tissue valve prostheses and cardiac myocardial preservation; and studies of platelets function with cardiopulmonary by-pass.
 Biochemical changes (intra and extra myocardial) in experimental model with congestive heart failure.

• Investigations of the physiology profile of patients in a Surgical Intensive Care Unit.

• Musculoskeletal system - studies into the nature and function of connective tissue, and studies in cartilage and joint function. Special emphasis is placed on electron microscopy.

• Peripheral Vascular Laboratory for patients with vascular disease.

• Evaluation of Surgical Care - studies on the efficacy of inpatient surgical care using health status indices.

TOXICOLOGY GRADUATE PROGRAM (INTERDISCIPLINARY)

Research and postgraduate teaching in toxicology is coordinated and led by the Toxicology Centre, with substantial participation from members of the University's Toxicology Group. The Toxicology Group is an interdisciplinary body under the umbrella of the College of Graduate Studies and Research that consists of faculty members from many university departments, as well as scientists from various government research institutions located on or near campus. Most Toxicology Group faculty are available to serve as supervisors for prospective students.

The Toxicology Graduate Program offers Postgraduate Diploma, M.Sc., and Ph.D. programs. In addition to general toxicology, activities and specializations within the program include analytical toxicology, aquatic toxicology, ecotoxicology, forensic toxicology, immunotoxicology, molecular biology, nutritional toxicology, radiation toxicology, veterinary toxicology, and wildlife toxicology.

Applicants to the Toxicology Graduate Program must possess a recognized undergraduate degree in the life sciences, such as a B.Sc., D.V.M., M.D., B.S.A., or B.S.P. Undergraduate training should, at a minimum, include basic training in biology and chemistry, three credits in biochemistry, six credits in vertebrate physiology, and a working knowledge of statistical methods. Courses in environmental chemistry, ecology, and pharmacology or toxicology are desirable.

The minimum requirement for completion of a PGD program is 30 credits, including 18 to 21 credits from core courses. M.Sc. and Ph.D. programs require at least 16 credits (4 courses, including VT P 836.5 and 837.5) from core courses, with additional courses as determined by the student's assigned Advisory Committee, and research work resulting in an acceptable thesis.

For further information on these programs, contact the Coordinator, Academic Programs in Toxicology, c/o Toxicology Centre.

VETERINARY MEDICINE

Postgraduate programs leading to the Master of Veterinary Science degree and to a general Postgraduate Diploma in Veterinary Medicine are offered within the Western College of Veterinary Medicine (W.C.V.M.). These are in addition to diploma, M.Sc. and Ph.D. programs offered by departments according to the requirements as outlined by the College of Graduate Studies and Research. The M.Vet.Sc. program is currently offered by the Departments of Large Animal Clinical Sciences, Small Animal Clinical Sciences, Veterinary Microbiology, Veterinary Pathology and Veterinary Biomedical Sciences. The Postgraduate Diploma in Veterinary Medicine is offered by the W.C.V.M. through the Section of Continuing Veterinary Education.

MASTER OF VETERINARY SCIENCE

The M.Vet.Sc. program is designed to provide instruction beyond the D.V.M. level for veterinarians who desire both postgraduate training and experience, but have no primary interest in research. Thus it does not include a thesis requirement.

In addition to meeting the standard admission requirements for a M.Sc., a candidate for a M.Vet.Sc. must hold a D.V.M. degree or its equivalent and be eligible for licensure to practice in Canada. (The requirement of licensure eligibility may be waived under certain circumstances).

An advisory committee of at least three members must be established for each candidate with one member selected from an outside department. The advisory committee is responsible for the development of the student's program and a final comprehensive examination, which includes evaluation of the project.

The project must deal with an applied topic related to the candidate's field of specialty and must receive both departmental and advisory committee approval. The project work must demonstrate the ability to do independent study and investigation and must be finally submitted as a report in a style suitable for publication in a reputable journal.

The M.Vet.Sc. course work and project are designed to permit completion within a two-year period but when combined with formal clinical residency training, the program is generally extended over three years. Any exception to these durations requires formal approval from the department. If, after successful completion of the first year, the candidate wishes to proceed with a research degree, then subject to the recommendation of the advisory committee concerned and the approval of the department and the College of Graduate Studies and Research, the M.Vet.Sc. courses may be applied for credit toward the M.Sc. degree.

POSTGRADUATE DIPLOMA PROGRAM IN VETERINARY MEDICINE

In addition to the standard Postgraduate Diploma programs offered by several departments in the W.C.V.M., a general Postgraduate Diploma in Veterinary Medicine is offered. It is intended to meet the requirements of those veterinarians with a desire and need for postgraduate training in veterinary medicine, which is not restricted to a specialized area or discipline.

The academic requirements are those specified under the section "Requirements for Postgraduate Diplomas." In addition, a candidate must hold a D.V.M. or its equivalent. Certain departments have additional requirements. The unique feature of the program is that it is offered by the Western College of Veterinary Medicine instead of a single department, with the administration assigned to its Continuing Veterinary Education Section. Courses taken under this program are at the graduate level and are usually offered during Spring and Summer Session to facilitate attendance. Thus the requirements for the diploma may potentially be met by attendance at five summer sessions. Additionally, with the permission of the College of Graduate Studies and Research, credit may be given for up to 12 credit units taken at other universities.

For further information on this program contact the Continuing Veterinary Education Section (306)966-7268.

LARGE ANIMAL CLINICAL SCIENCES

The Department of Large Animal Clinical Sciences offers programs of graduate

Veterinary Pathology • GRADUATE STUDIES & RESEARCH

studies leading to M.Vet.Sc., M.Sc. and Ph.D. degrees in various disciplines including: Large Animal Internal Medicine, Large Animal Surgery, Herd Medicine, Clinical Epidemiology, Theriogenology, Farmed Wildlife and Animal Ethology. The M.Vet.Sc. degree requirements are outlined by the Western College of Veterinary Medicine under the Master of Veterinary Science. The specific requirements for the M.Sc. degree are a minimum of 15 credit units of graduate level work and the thesis research course. The Ph.D. program requires a minimum of 6 credit units of graduate level work beyond the M.Sc. requirements (21 credit units total) and the thesis research course. All students are expected to take the clinical seminar course. Generally, qualified students will possess a D.V.M. or an equivalent degree.

The areas of research under investigation by this department include all aspects of reproduction of domestic animals and some non-domestic species such as bison, deer and wapiti. Active research programs also include specific disease problems, preventative medicine programs, internal medicine and surgery for food-producing animals, horses and alternate livestock as well as species-oriented clinical research and training for selected species.

Graduate courses offered by the department are listed under Herd Medicine and Theriogenology in the Courses section of the *Calendar*.

SMALL ANIMAL CLINICAL SCIENCES

The Department of Small Animal Clinical Sciences offers research-oriented graduate programs leading to the Master of Science (M.Sc.) and Doctor of Philosophy (Ph.D.) degrees as well as non-thesis, advanced clinical training programs leading to the Master of Veterinary Science (M.Vet.Sc.) degree. Specialty areas include Small Animal Medicine, Small Animal Surgery, and body system specialties such as Cardiology, Neurology, Dermatology, Gastroenterology, Ophthalmology, Medical Imaging, and Anesthesiology. Residency training in an appropriate clinical specialty is an integral part of the M.Vet.Sc. program and an optional component of the M.Sc. program. The M.Vet.Sc. degree requirements are outlined by the Western

College of Veterinary Medicine under the Master of Veterinary Science. The specific requirements for the M.Sc. degree are a minimum of 15 credit units of graduate level work and the thesis research course. The Ph.D. program requires a minimum of 6 credit units of graduate level work beyond the M.Sc. requirements (21 credit units total) and the thesis research course. All students are expected to take the clinical seminar course.

Graduate courses offered by the department are listed in the Courses section of the *Calendar* under Veterinary Anesthesiology, Radiology and Surgery; Veterinary Internal Medicine.

VETERINARY BIOMEDICAL SCIENCES

The Department of Veterinary Biomedical Sciences offers graduate programs leading to the M.Vet.Sc., M.Sc., and Ph.D. degrees. Discipline areas include Animal Biochemistry, Developmental Anatomy, Gross and Applied Anatomy, Microscopic Anatomy and Ultrastructure, Pharmacology, Physiology and Toxicology. Areas of faculty research interest include studies in cardiovascular physiology, gastrointestinal biochemistry, toxicology, pulmonary pathobiology, neuroscience, pharmacology and reproductive biology. Students are expected to gain a detailed understanding of their area of interest and appropriate related material within the more general discipline areas outlined above. The M.Vet.Sc. degree requirements are outlined by the Western College of Veterinary Medicine under the Master of Veterinary Science. The specific requirements for the M.Sc. degree are a minimum of 15 credit units of graduate level work and the thesis research course. The Ph.D. program requires a minimum of 6 credit units of graduate level work beyond the M.Sc. requirements (21 credit units total) and the thesis research course.

Graduate courses offered by the department are listed in the Courses section of the *Calendar* under Veterinary Anatomy; Veterinary Physiological Sciences.

VETERINARY MICROBIOLOGY

Programs leading to Postgraduate Diploma, M.V.Sc., M.Sc., and Ph.D. degrees in Veterinary Microbiology are offered in the areas of bacteriology, epizootiology, immunology/pathology, parasitology and virology.

Current areas of active departmental research interest include: antimicrobial drug resistance in pathogenic bacteria of domestic animals, vaccine safety and efficacy, asthma and allergy, cytokines and immunopathology, development and use of immunohistochemical techniques for diagnosis of infections and other diseases, molecular basis for herpes virus pathogenesis and parasitology of Arctic mammals.

VETERINARY PATHOLOGY

The Department of Veterinary Pathology offers programs leading to a Postgraduate Diploma (one year) and M.Vet.Sc. (project, 2 year residency training) in diagnostic veterinary pathology, M.Sc. (thesis) and Ph.D. (thesis) degrees. It is generally required that candidates for the thesis degrees hold a D.V.M. degree or its equivalent. Some exceptions may be made for candidates with a broad background in biology. Candidates for the diploma and M.Vet.Sc. degree must hold a D.V.M. degree or its equivalent and be eligible for licensure to practice in Canada. The requirement of licensure eligibility may be waived under certain circumstances. Research interest in the department include: hematology, oncology, wildlife diseases, toxicopathology, and infectious diseases of domestic animals.

COURSES

Many of the courses in the *Calendar* have specifically stated prerequisites. Under exceptional circumstances, prerequisites may be waived as approved by the department.

Not all courses described in the *Calendar* are given in any one academic year. For a list of courses to be offered in 2002-2003 Regular Session and timetable of these courses, please consult the Head of the Department concerned.

900-LEVEL COURSES

990 COURSE

Most Master's and Ph.D. programs include a requirement that students register in a 990 seminar course. There are no tuition fees for the 990 course, provided students are registered for other courses. The 990 course carries no credit unit weight, and does not reduce course requirements in the required program of study. Unless otherwise specified, a course numbered 990 and described as a seminar does not involve examinations and has no credit attached to it, although a student is required to attend and to participate in the discussions. Students must register in the 990 course at the time of first registration in any program containing a 990 component. This registration must be continuous until they have completed requirements for the course. Once credit has been received, no further registration in the 990 course will be either required or allowed. These seminar courses vary considerably in content. All include reports and discussions on current developments, research and methodology in the field, and all include requirements for student participation and presentations.

992, 994, 996 COURSES

All students who are working on their thesis projects register for 994 (Master's Programs) or 996 (Ph.D. Programs). Project courses for students registered in Master's programs without thesis are numbered 992. The times and rooms at which courses meet are posted by the department prior to the beginning of a term.

COLLEGE OF GRADUATE STUDIES AND RESEARCH

GSR courses, which are non-credit courses, are not associated with any specific department, but are available on recommendation by the student's Advisory Committee to all registered graduate students. There are no tuition fees for these courses, provided the student is registered for other courses. Students must officially register for these courses in order to attend. These courses do not reduce the course requirements for a graduate degree.

conege of draudate studies and research courses are instea in the courses section under the following subject headings.				
Accounting (ACC, MPACC)	Education:	German (GERM)	Physics and Engineering Physics (PHYS)	
Agricultural and Bioresource Engineering (AB E)	Continuing Education (EDCNT)	Graduate Studies and Research (GSR)	Physiology (PHSIO)	
Agricultural Economics (AG EC)	Curriculum Studies (EDCUR)	Herd Medicine Theriogenology (HMT)	Plant Sciences (PL SC)	
Anatomy and Cell Biology (ANAT)	Education (EDRES, EDUC)	History (HIST)	Political Studies (POLST)	
Animal Science (AN SC)	Educational Administration (EDADM)	Interdepartmental (INTDL)	Psychiatry (PSIAT)	
Anthropology (ANTH)	Educational Communications and	Interdisciplinary Studies (INT D)	Psychology (PSY)	
Applied Microbiology (AP MC)	I ECNNOIOGY (EDCMINI)	Kinesiology (KIN)	Rehabilitation Medicine (REHMD)	
Archaeology (ARCH)	Educational Foundations (EDFD)	Law (LAW)	Remote Sensing (RE SE)	
Art (ART)	Educational Psychology and Special Education (EDPSY)	Marketing (MKT)	Sociology (SOC)	
Biochemistry (BIOCH)	Indian and Northern Education (EDIND)	Mathematics (MATH)	Soil Science (SL SC)	
Biology (BIOL)	Music Education (EDMUS)	Mechanical Engineering (M E)	Statistics (STATS)	
Biomedical Engineering (BIU E)	Special Education (EDEXC)	Microbiology and Immunology (MICRO)	Surgery (SURG)	
Business Administration (MBA)	Electrical Engineering (E E)	MUSIC (MUSIC)	Toxicology (TOX)	
Chemietry (CHEM)	Engineering Physics (E P)	Nursing (NURS)	Veterinary Anatomy (VT AN)	
Civil Engineering and Goological	English (ENG)	Nutrition (NUTR)	Veterinary Anesthesioogy, Radiology &	
Engineerring (C E)	Environmental Engineering (ENV E)	Obstetrics Gynecology & Benroductive	Surgery (VTARS)	
Classics (Contact the Dept of History)	Food Science (FD SC)	Sciences (OB&GY)	Veterinary Interdepartmental (VTINT)	
Community Health and Epidemiology (CH&EP)	French (FR)	Pathology (PATH)	Veterinary Internal Medicine (VT IM)	
Computer Science (CMPT)	Geography (GEOG)	Pharmacology (PHCOL)	Veterinary Microbiology (VT MC)	
Drama (DRAMA)	Geological Sciences (GEOL)	Pharmacy (PHARM)	Veterinary Pathology (VT PA)	
Economics (ECON)	Geophysics (GEOL)	Philosophy (PHIL)	Veterinary Physiological Sciences (VT P)	

College of Graduate Studies and Research courses are listed in the Courses section under the following subject headings