Dance 207 **H(2S-2)**

Contemporary Dance I

Elementary study of the techniques of contemporary dance.

Prerequisites: Dance 205 or equivalent and consent of the Program of Dance.

Dance 209 **H(2-2)**

Contemporary Dance II

Further elementary study of the techniques of contemporary dance.

Prerequisites: Dance 207 or equivalent and consent of the Program of Dance.

Dance 211 **H(2S-2)**

Jazz Dance I

Introductory study of the techniques of jazz dance.

Dance 221 **H(2S-2)**

Ballet I

Introductory study of the techniques of ballet.

Dance 235 **H(2S-2)**

Conditioning for Dancers

Study of the basic principles of conditioning for dancers.

Prerequisite: Dance 203 or consent of the Program of Dance.

Senior Courses

Dance 303 **H(2S-4)**

Principles of Technique

Reinforcement of the basic principles of contemporary dance in preparation for more advanced study.

Prerequisites: Dance 209 or equivalent and consent of the Program of Dance.

Dance 305 **H(2S-4)**

Contemporary Dance III

Elementary/intermediate study of the techniques of contemporary dance.

Prerequisites: Dance 209 or equivalent and consent of the Program of Dance.

Dance 307 **H(2S-4)**

Contemporary Dance IV

Further elementary/intermediate study of the techniques of contemporary dance.

Prerequisites: Dance 305 or equivalent and consent of the Program of Dance.

Dance 309 **H(3S-0)**

Special Topics in Dance Theory

Prerequisite: Consent of the Program of Dance.

MAY BE REPEATED FOR CREDIT

Dance 311 **H(2S-4)**

Jazz Dance II

Elementary study of the techniques of jazz dance.

Prerequisites: Dance 211 or equivalent and consent of the Program of Dance.

Dance 313 **H(2S-4)**

Jazz Dance III

Further elementary study of the techniques of jazz dance.

Prerequisites: Dance 311 or equivalent and consent of the Program of Dance.

Dance 321 **H(2S-4)**

Ballet II

Elementary study of the techniques of ballet.

Prerequisites: Dance 221 or equivalent and consent of the Program of Dance.

Dance 323 **H(2S-4)**

Ballet III

Further elementary study of the techniques of ballet.

Prerequisites: Dance 321 or equivalent and consent of the Program of Dance.

Dance 331 **H(2S-2)**

Dance Improvisation

Experiences in individual and group improvisation. Development of skills in designing and participating in improvisational structures.

Prerequisites: Dance 209 and Dance Education 247 or equivalent; or consent of the Program of Dance.

Dance 333 **H(2S-2)**

Contemporary Choreography I

Contemporary composition and choreography; the choreographic use of time, space, sound, movement and human communications.

Prerequisite: Dance 331 or equivalent or consent of the Program of Dance.

Dance 341 **H(3S-0)**

Early Dance History

Historical survey of dance: origins to the nineteenth century.

Dance 343 **H(3S-0)**

Writing About Dance

Aesthetic concepts and critical methods used in writing about dance.

Prerequisites: Dance 241 and 245 or consent of the Program of Dance.

Dance 345 **H(3S-0)**

Modern Dance History

Historical survey of twentieth century western theatre dance.

Dance 365 **H(2S-4)**

Pilates Conditioning

Study of the Pilates method of conditioning utilizing the Pilates Reformer apparatus.

Prerequisites: Dance 207 or equivalent and consent of the Program of Dance.

Dance 375 **H(2-2)**

Body/Mind Practices

The theory, vocabulary and application of body/mind practices.

Prerequisite: Kinesiology 261 or consent of the Program of Dance.

Dance 395 **H(1S-5)**

Dance Performance Practicum I

Practical experience in dance performance choreography, or artistic direction.

Prerequisite: Consent of the Program of Dance.

NOT INCLUDED IN GPA

Further study in the principles and techniques of contemporary dance, open to intermediate and advanced levels.

Prerequisite: Dance 401 or equivalent or consent of the Program of Dance.

Dance 405 **H(2S-4)**

Contemporary Dance V

Intermediate study of the techniques of contemporary dance.

Prerequisites: Dance 307 or equivalent and consent of the Program of Dance.

Dance 407 **H(2S-4)**

Contemporary Dance VI

Further intermediate study of the techniques of contemporary dance.

Prerequisites: Dance 405 or equivalent and consent of the Program of Dance.

Dance 411 **H(2S-4)**

Jazz Dance IV

Intermediate study of the techniques of jazz dance.

Prerequisites: Dance 313 or equivalent and consent of the Program of Dance.

Dance 413 **H(2S-4)**

Jazz Dance V

Further intermediate study of the techniques of jazz dance.

Prerequisites: Dance 411 or equivalent and consent of the Program of Dance.

Dance 421 **H(2S-4)**

Ballet IV

Intermediate study of the techniques of ballet.

Prerequisites: Dance 323 or equivalent and consent of the Program of Dance.

Dance 423 **H(2S-4)**

Ballet V

Further intermediate study of the techniques of ballet.

Prerequisites: Dance 421 or equivalent and consent of the Program of Dance.

Dance 431 **H(2S-2)**

Contemporary Choreography II

Further study of contemporary composition and choreography.

Prerequisites: Dance 333 or equivalent and consent of the Program of Dance.

Note: Not open to students with credit in Dance 430.

Dance 433 **H(2S-2)**

Contemporary Choreography III

Continued further study of contemporary composition and choreography.

Prerequisites: Dance 431 or equivalent and consent of the Program of Dance.

Note: Not open to students with credit in Dance 430.

Dance 455 **H(2S-4)**

Contemporary Dance VI(a)

Continuing intermediate study of the techniques of contemporary dance.

Prerequisites: Dance 407 or equivalent and consent of the Program of Dance.

Dance Education 247 **H (2-2)**
(formerly Dance Education 301)

Creative Dance: A Study of Laban Analyses

Creative dance through the study of movement themes as defined by Rudolf Laban.

Dance Education 251 **H(2-2)**

Introduction to Music for Dance

An introduction to the relationship between music and dance.

Senior Courses

Dance Education 303 **H(2-2)**

Special Topics

MAY BE REPEATED FOR CREDIT

Dance Education 325 **H(1-3)**
(formerly Dance Education 321)

Dance in Schools

Content, planning, and teaching methodology in school dance.

Prerequisite: Dance Education 221, 225, or 247.

Note: Open to Pedagogy Majors in Kinesiology and BA Dance Majors only.

Dance Education 427 **H(1-3)**

Social and Recreational Dance Forms

Practical experience in a range of social and recreational dance forms.

Dance Education 449 **H(2-2)**

Dance Teaching Techniques

Principles and practice of dance instruction.

Prerequisites: Kinesiology 261, Dance 307, 313 or 323, and 463, or consent of the Program of Dance.

Dance Education 481 **H(3-0)**

Dance and Culture

The study of dance as a cultural practice.

Prerequisite: One of Dance Education 243, Dance 341 or 345.

Dance Education 493 **H(1-3)**
(formerly Dance Education 491)

Dance Teaching Practicum

Practical experience teaching dance in school and recreational settings.

Prerequisite: Consent of the Faculty.

NOT INCLUDED IN GPA

Dance Education 503 **H(3-0)**

Special Topics

Prerequisite: Consent of the Faculty.

MAY BE REPEATED FOR CREDIT

Graduate Course

Dance Education 603 **H(3-0)**

Special Topics

Selected topics in Dance Education and related subjects.

Prerequisite: Consent of the Faculty.

MAY BE REPEATED FOR CREDIT

[redacted]

Instruction offered by members of the Faculty of Kinesiology.

Students should also see course listings under the headings Dance Education, Kinesiology, Outdoor Pursuits, Outdoor Pursuits Activity/Theory, Physical Education, and Physical Education Activity/Theory.

Junior Courses

Dance Education Activity/Theory 279 **E(0-2)**

Ballroom Dance I

Dance Education Activity/Theory 281 **E(0-2)**

Folk Dance I

Dance Education Activity/Theory 287 **E(0-2)**

Tap Dance I

Dance Education Activity/Theory 289 **E(0-2)**

Renaissance Dance

Senior Course

Dance Education Activity/Theory 379 **E(0-2)**

Ballroom Dance II

Prerequisite: Dance Education Activity/Theory 279 or consent of the Faculty.

[redacted]

Instruction offered under the direction of the Faculty of Communication and Culture. For information contact the Program Director or the Academic Programs Office, 220-6343.

Additional interdisciplinary courses are offered under the course headings African Studies, Canadian Studies, Central and East European Studies, Communications Studies, East Asian Studies, General Studies, Latin American Studies, Law and Society, Leisure, Tourism and Society, Museum and Heritage Studies, Northern Planning and Development Studies, Science, Technology and Society, South Asian Studies, and Women's Studies.

Junior Course

Development Studies 201 **H(2-1)**
(formerly Development Studies 391)

Introduction to Northern and International Development

An interdisciplinary course focusing on development in both a northern and international context. Explores factors that shape development processes; introduces concepts and issues such as poverty; colonialism and self-determination; human ecology and sustainable development; and appropriate technology. Examines the origins, purposes, and performance of contemporary national and international institutions and their effect on people in different geographical and socio-economic contexts.

Senior Courses

Development Studies 375 **H(3-0)**

Gender and Development

Examines development from the critical perspective of the key role played by gender in development. Case studies from Canadian and international contexts will provide illustrative material for analyzing the issues that emanate from the gendered nature of development processes and practices.

Development Studies 393 **H(3-0)**

Theories and Applications of Development

A study of development theories and applications through northern and international case studies. Examines practical manifestations of those theories and approaches in development planning, implementation, and praxis including Modernization theory; dependency theory; basic needs approach; neo-liberalism; the staple thesis; globalization; women in development; gender and development.

Prerequisite: Development Studies 201 or 391 or consent of the Associate Dean (Student Affairs and Curriculum).

Development Studies 401 **H(3-0)**

Special Topics in Development Studies

An examination of selected topics in Development Studies. See Master Timetable for c1practices.Studi(s 540xamina

SpSecial Topics in Development Studies10 -1.148 (Examines ev

Instruction offered by members of the Department of Drama in the Faculty of Fine Arts.

Department Head – D. McCullough

Drama 001 **(0-4)**

Theatrical Stage Production I

NOT INCLUDED IN GPA

Drama 002 **(0-4)**

Theatrical Stage Production II

NOT INCLUDED IN GPA

Drama 003 **(0-4)**

Theatrical Stage Production III

NOT INCLUDED IN GPA

Drama 004 **(0-4)**

Theatrical Stage Production IV

NOT INCLUDED IN GPA

Junior Courses

Drama 200 **F(3S-2)**

Introduction to Acting

Practical experience in acting; improvisation and introductory work from texts; the development of communication skills and personal acting creativity.

Drama 222 **F(1-3)**

Introduction to Theatre Production

An introduction to design, technical and organizational principles of theatre production.

Note: Participation on the production crews of Department productions is required.

Drama 240 **F(3-1T)**

Introduction to Drama

Interpretation and study of dramatic genres related to the Department's season of plays; introduction to play analysis.

Senior Courses

The following listing is provided to assist students in their selection of related groups of Drama courses.

Acting and Directing:

300 400 410 500 510

Design and Technical:

313 315 317 319 321
325 329 409 411 415
417 419 423 425 429
517 519 531 533

Dramatic Literature, Criticism, History, Theory:

340 342 344 356 440
452 540 552

Theatre for Young Audiences and Developmental/Performance Drama:

360 362 364 460 462
560

Senior Option Courses:

371 375 377 471 571
572

Production Courses:

391 393 491 493 590
591 593

Graduate Courses:

605 607 610 623 625
627 629 648 651 660
662

Drama 300 **F(2S-4)**

Advanced Acting I

Further development of fundamental acting techniques; participation in the Department's season of plays may be required.

Prerequisites: Drama 200 and consent of the Department.

Drama 313 **H(2S-2)**

Introduction to Design for Theatre I

Basic set, props, lighting and costume design theory, process and technique for a variety of theatre forms and performance styles.

Prerequisite or Corequisite: Drama 319 or consent of the Department.

Drama 315 **H(2S-2)**

Introduction to Design for Theatre II

Continuation of Drama 313.

Prerequisite: Drama 313 or consent of the Department.

Drama 317 **H(2S-2)**

Introduction to Stage Sound

Basic principles of sound for the theatre: recording, reinforcement and reproduction techniques and methods used in creating a production design.

Prerequisite: Drama 222 or consent of the Department.

Note: This course meets for two hours per week during the Fall and Winter Sessions.

Drama 319 **H(2S-2)**

Graphics and Model Building for Theatre

An introduction to graphic and model building techniques for the theatre designer.

Prerequisite: Drama 222 or consent of the Department.

Drama 321 **H(2S-2)**

Stage Management

Principles of stage management; a stage management project related to one of the presentations in the Department's season of plays.

Prerequisite: Drama 222 or consent of the Department.

Drama 325 **H(4-0)**

History of Civil Dress and Decor I

An overview of the history of civil dress and the allied arts of architecture and decor from prehistory to the Renaissance.

Drama 329 **H(4-0)**

History of Civil Dress and Décor II

An overview of the history of civil dress and the allied arts of architecture and decor from the Renaissance to contemporary times.

Prerequisite: Drama 325 or consent of the Department.

Drama 340 **F(4S-0)**

Seminar in Drama I

Critical examination of each play performed in the Department's season of plays centred upon their genres and historical settings; staging requirements for contemporary productions and other works by the same authors and their contemporaries may also be studied.

Prerequisite: Drama 240 or consent of the Department.

Drama 342 **F(3-0)**

History of the Theatre: Origins to the Late Eighteenth Century

Theatre as an art and social phenomenon in selected cultures, emphasizing the development of Western traditions.

Drama 344 **F(3-0)**

History of the Theatre: The Late Eighteenth Century to the Present

Popular and elite traditions of theatre in Western Europe and North America.

Drama 356 **F(3S-0)**

Canadian Theatre and Drama

History, literature, and cultural milieu of Canadian theatre from its colonial origins to the present day.

Drama 360 **F(2S-2)**

Developmental Drama I

Explorations in personal creativity; practical experience in creative drama activity; the principles, theories, and application of creative drama.

Note: Not open to students with credit in Drama 366.

Drama 362 **F(2S-2)**

Theatre for Young Audiences I

History and objectives of theatre for the young audience; practical work in the principles and techniques of acting, directing and producing plays.

Drama 364 **F(2S-2)**

Performance Media

Methods of adapting alternative spaces for performance, with emphasis on non-traditional modes of production, exploration and investigation of existing hardware and software to facilitate image and sound manipulation in the creation of performance environments.

Prerequisite: Consent of the Department.

Drama 371 **H(2S-2)**

Introduction to Playwriting

Directed exercises in writing for the theatre; workshop sessions for developing and reworking

material.

Prerequisites: Drama 200, 222, and 240 or consent of the Department.

Drama 375 **H(1.5-1.5)**

Fundamentals of Puppetry

History and development of puppetry; basic design, construction and manipulation of hand, rod and shadow puppets.

Drama 377 **H(1.5-1.5)**

Puppet Theatre Production

Production of puppet shows; development of scripts, stage design, construction and performance.

Prerequisite: Drama 375 or consent of the Department.

Drama 391 **H(0-6)**

Performance Practicum I

Practical experience in theatrical production.

Prerequisites: Drama 200, 222, and 240 or consent of the Department.

Note: Not open to students with credit in Drama 390.

Drama 393 **H(0-6)**

Performance Practicum II

Further practical experience in theatrical production.

Prerequisite: Drama 391.

Note: Not open to students with credit in Drama 390.

Drama 400 **F(3S-6)**

Advanced Acting II

Further study in the techniques of acting; performance in the Department's season of plays may be required.

Prerequisites: Drama 300 and consent of the Department.

Drama 409 **H(1-4)**

Scenic Painting

Skills and techniques of advanced scenic art; development of working aesthetic principles in producing visual art for the stage; emphasis on process in the paint shops, and on the techniques and tools of realization within constraints of deadlines and available resources.

Prerequisites: Drama 313, 315 and 319 or consent of the Department.

Drama 410 **F(2-2)**

Fundamentals of Directing

Theories and practical techniques of directing plays; students may be required to observe or assist faculty directors. Studies will be coordinated with the Department's season of plays whenever possible.

Prerequisites: Drama 200, 222, and 340 or consent of the Department.

Drama 411 **H(1-4)**

Advanced Scenic Painting

Further development of skills and techniques of advanced scenic art; emphasis on the acquisition of advanced professional skills and disciplines.

Prerequisite: Drama 409 or consent of the Department.

Drama 415 **H(2-2)**

Advanced Lighting Design and Technique I

Advanced studies in lighting design for the theatre. Studies in design and presentation for lighting various forms of contemporary theatre events and spaces.

Prerequisite: Drama 315 or consent of the Department.

Note: Not open to students with credit in Drama 426.

Drama 417 **H(2-2)**

Advanced Lighting Design and Technique II

Continuation of Drama 415. Advanced studies in lighting design for the theatre.

Prerequisite: Drama 415 or consent of the Department.

Note: Not open to students with credit in Drama 426

Drama 419 **H(2-2)**

Advanced Scene Design and Technique I

Set design and scenography for a variety of contemporary theatre forms and genres.

Prerequisite: Drama 315 or consent of the Department.

Note: Not open to students with credit in Drama 422.

Drama 423 **H(2-2)**

Advanced Scene Design and Technique II

Continuation of Drama 419 with a heightened emphasis on the interpretation of text to design.

Prerequisite: Drama 419 or consent of the Department.

Note: Not open to students with credit in Drama 422.

Drama 425 **H(2S-2)**

Advancd Costume Design and Technique I

Costume design and technique in relation to major styles of presentation.

Prerequisites:

Drama 531 **H(2S-2)**

Scene Painting I

Theory and technique of scene painting for a variety of theatre genres.

Prerequisite: Consent of the Department.

Drama 533 **H(2S-2)**

Scene Painting II

Continuation of theory and technique of scene painting for a variety of theatre genres.

Prerequisites: Drama 531 and consent of the Department.

Drama 540 **F(4S-0)**

Seminar in Drama III

Critical study at an advanced level of the dramatic metaphor as presented in the Department's season of plays; intensive focus on the historical period and theatrical genre of one or two of the season's plays especially.

Prerequisite: Drama 440 or consent of the Department.

Drama 560 **F(2S-2)**

Developmental Drama III

Comparative studies of developmental drama; intermediate project work.

Prerequisite: Drama 460 or consent of the Department.

Drama 571 **H(2S-0)**

Directed Studies I

Prerequisite: Consent of the Department.

MAY BE REPEATED FOR CREDIT

Drama 572 **F(2S-0)**

Directed Studies II

Prerequisite: Consent of the Department.

MAY BE REPEATED FOR CREDIT

Drama 590 **F(1S-10)**

Professional Theatre Internship

Internship experience in acting; directing; design; dramaturgy; theatre, stage or production management with a local professional theatre organization.

Prerequisites: Fourth-year standing and consent of the Department.

Drama 591 **H(0-6)**

Performance Practicum V

Further practical experience in theatrical production.

Prerequisite: Drama 493.

Drama 593 **H(0-6)**

Performance Practicum VI

Further practical experience in theatrical production.

Prerequisite: Drama 591.

Graduate Courses

Drama 605 **H(2-0)**

Methods in Theatre Research

Methods in research in the four areas of specialization in the MFA Theatre program.

Note: Required of all students enrolled in the MFA Theatre program.

Drama 607 **H(2S-2)**

Director, Designer, and Mise-en-scene

Advanced collaborative methods and techniques for directors, designers and dramaturges, leading to the creation of a mise-en-scene for selected plays of varying styles and genres.

Drama 610 **F(2S-3)**

Selected Problems in Directing

Drama 623 **H(2S-2)**

Seminar in Scene Design

MAY BE REPEATED FOR CREDIT

Drama 625 **H(2S-2)**

Seminar in Costume Design

MAY BE REPEATED FOR CREDIT

Drama 627 **H(2S-2)**

Seminar in Lighting Design

MAY BE REPEATED FOR CREDIT

Drama 629 **H(2S-2)**

Seminar in Technical Direction

MAY BE REPEATED FOR CREDIT

Drama 648 **F(3S-0)**

Seminar and Practicum: Contemporary Theatre, 1945 - Present

Drama 651 **H(2S-0)**

Directed Studies

MAY BE REPEATED FOR CREDIT

Drama 653 **H(0-3)**

Theatre at the Banff Centre

Advanced drama studies. Although the Banff Centre does not provide credit course instruction, students with advanced experience in drama at the Banff Centre may apply for graduate-level credit from the University of Calgary.

Prerequisite: Consent of the Department.

MAY BE REPEATED FOR CREDIT

NOT INCLUDED IN GPA

Drama 660 **F(2S-3)**

Seminar and Practicum in Developmental Drama

Drama 662 **F(2S-3)**

Seminar and Practicum in Theatre for Young Audiences

[redacted]

Instruction offered by members of the Department of Germanic, Slavic and East Asian Studies in the Faculty of Humanities.

Department Head – X-J. Yang

Senior Course

Dutch 317 **H(3-0)**

Dutch Civilization

Principal trends in the development of Dutch civilization and its place in the European setting.

Note: This course is given in English and no knowledge of Dutch is required.

[redacted]

A collaborative offering of the Faculties of Communication and Culture, Humanities, and Social Sciences.

Senior Courses

East Asia 300 **F(3-0)**

Introduction to East Asia

An examination of East Asian civilizations from ancient times to the modern period, including the socio-cultural forces that were shaped by and that contributed to the religious, historical, economic,

Primary focus on China, Japan, Korea and Taiwan.

Note: Not open to students with credit in or concurrently registered in East Asia 300.

East Asian Studies 319 **H(3-0)**

East Asian Values in a Canadian Setting

Examines the presence of East Asian values within Canada, their potential for greater acceptance in and contribution to Canadian life, and changes that would facilitate the acceptance of East Asians into the Canadian mainstream. East Asian values will be examined generically, as well as specifically to the cultures of China, Japan, Korea and Vietnam.

Note: Not open to students with credit in General Studies 301.04.

Note: Previous course work in East Asian culture would be advantageous to the student.

East Asian Studies 321 **H(3-0)**

Introduction to the Calgary Chinese Community

Provides instruction on the direct experience of important aspects of the Calgary Chinese community, including its history, commercial sector, entertainment facilities, and its cultural, social, and religious organizations.

Note: Not open to students with credit in General Studies 301.06.

Note: Course requires off-campus attendance with a considerable amount of walking involved.

Note: Until August 15, preference in enrollment is given to Majors in East Asia.

East Asian Studies 403 **H(3-0)**

East Asian Perspectives on the Environment

Focuses on traditional East Asian attitudes to the environment. Investigates the philosophical foundations, concrete measures arising from, and positive consequences of these attitudes. Outlines environmental problems in western nations, including more modern developments in East Asia, as a demonstration of the difficulty and need of contributing to restoration and preservation of the environment. Concludes with an examination of how traditional East Asian attitudes could potentially benefit the environment today.

Note: Previous course work in East Asian culture would be advantageous to the student.

[redacted]

Instruction offered by members of the Department of Biological Sciences in the Faculty of Science.

Department Head – D.M. Reid

† Limited amounts of non-scheduled class time involvement will be required for these courses.

Senior Courses

Ecology 413 **(140 hours)**

Field Course in Ecology

An examination of ecological principles and techniques through field exercises, including studies of terrestrial and aquatic populations, communities and ecosystems. The course is held at the Kananaskis Centre for Environmental Research in the two weeks immediately prior to the commencement of the Fall Session.

Prerequisite: Biology 313.

Note: Enrollment in this course may be limited. See explanation in the Program section of this Calendar.

Ecology 417 **H (3-3)**

Aquatic Communities and Ecosystems

Community composition and dynamics at the various trophic levels of aquatic ecosystems. Temporal and spatial changes in community composition, physical and chemical conditions, and their effects on the ecosystem. There will be a full week-end field trip.

Prerequisites: (Note:)Tj tyoe316Prerequisites:
environmental problems in western nations,

Prerequisites: Tf 72/F6:s sian attitudes c4w (0tes:)Tta (4w (0teF6:)Tj /J427(0tes:)Tta (

deregulation.

greater appreciation for the strengths and limitations of microeconomic analysis.

Prerequisite: Economics 357.

Economics 399 **H(3-0)**

Selected Topics in Economics I

A decimalized course in which topics will vary from year to year. Consult the timetable or the Department for the topics available in a given year.

Prerequisites: Economics 201/203 or consent of the Department.

MAY BE REPEATED FOR CREDIT

Economics 401 **H(3-0)**

Public Sector Economics: Expenditures

Theory of government spending. Topics include the nature of public goods and externalities, the pricing of public services, causes of growth of public expenditures, expenditure incidence, social insurance, social decision procedures, and political and bureaucratic influences.

Prerequisites: Economics 303 and 357; or consent of the Department.

Economics 403 **H(3-0)**

Public Sector Economics: Taxation

Theory of taxation. Topics include the rationale for and the incentive effects of taxation, efficiency and equity aspects of taxation, partial and general equilibrium tax incidence, open economy effects, choice of governing instruments, and tax reform.

Prerequisites: Economics 303 and 357; or consent of the Department.

Economics 405 **H(3-0)**

Political Economy of Public Policy

Introduction to the economic foundations of political economy and economic models of public sector policy formation. Potential topics are the role of institutions in policy design, theories of bureaucracy, political business cycles, the formation and behaviour of interest groups, and the strategic use of government debt.

Prerequisites: Economics 303 and 357; or consent of the Department.

Economics 415 **H(3-0)**

Seminar in Contemporary Policy Issues I

An examination of selected problems and policies, with special emphasis on microeconomic issues.

Prerequisites: Economics 303 and 315; or consent of the Department.

Prerequisite or Corequisite: Economics 357.

Economics 417 **H(3-0)**

Seminar in Contemporary Policy Issues II

An examination of selected problems and policies, with special emphasis on macroeconomic issues.

Prerequisites: Economics 301 and 315; or consent of the Department.

Prerequisite or Corequisite: Economics 359.

Economics 419 **H(3-0)**
(formerly Economics 317)

Introduction to Econometrics II

Econometric techniques emphasizing estimation of sets of interdependent economic relationships. Topics include construction of economic models, simultaneous equation problems, alternate estimation procedures, simulation models, econometric theory in matrix form, use of computer packages and solution of practical econometric problems.

Prerequisites: Economics 315; Mathematics 211; Economics 301 and 303 or consent of the Department.

Economics 423 **H(3-0)**

International Macroeconomics

Foreign exchange markets, and international macroeconomic connections with trade in assets as well as goods and services. Topics include: alternative exchange rate regimes; monetary and fiscal policy responses to problems of unemployment and inflation; balance of payments adjustment mechanisms; international debt; and Euro-dollar markets.

Prerequisite: Economics 303 or 313 or consent of the Department.

Economics 425 **H(3-0)**

International Trade

The general equilibrium treatment of the gains from trade, comparative advantage and trade patterns provides a basis for examining topics such as: trade policy under imperfect competition, trade policy and the environment, trade policy and economic growth, and preferential trading arrangements.

Prerequisite: Economics 309 or 357 or consent of the Department, or Corequisite: Economics 357. Completion of Economics 321 is recommended but not necessary.

Economics 431 **H(3-0)**

The Canadian Labour Market

Economic analysis of migration, labour force participation, education, fertility, manpower policy, and the measurement and treatment of unemployment.

Prerequisites: Economics 301 or 309; and 303 or 313; or consent of the Department.

Economics 433 **H(3-0)**

Wage Determination

Wage and income determination; policies dealing with employment discrimination; and income redistribution.

Prerequisite: Economics 301 or 309 or consent of the Department.

Economics 443 **H(3-0)**

The Economics of Financial Markets

An introduction to the basic functions and structure of financial markets, and an analysis of the economic aspects of pricing decisions in securities markets. Institutional features, theoretical pricing and trading strategies in bond, stock, options, forward and futures markets will be examined.

Prerequisites: Economics 341 and 357; or consent of the Department.

Economics 453 **H(3-0)**

Cost-Benefit Analysis

Theoretical basis for social cost-benefit analysis, appraisal techniques for investment projects and public policies, and selected applications.

Prerequisite: Economics 357 or consent of the Department.

Economics 465 **H(3-0)**

Industrial Development of Alberta

Structure, growth and development of the provincial economy; evaluation of industrial projects and policy alternatives.

Prerequisites: Economics 301 or 309; and 303 or 313; or consent of the Department.

Economics 471 **H(3-0)**

Industrial Organization

Behaviour of firms in imperfectly competitive markets. Topics include the theory of strategic competition; dynamic price competition and tacit collusion; product differentiation, product selection, and preemption; entry deterrence and capacity competition; information, reputation, and predation; the economics of research and development; international trade and imperfectly competitive markets.

Prerequisite: Economics 357 or consent of the Department.

Economics 475 **H(3-0)**

Economics of Natural Resources I

Application of economic theory to the problems of natural resource pricing, allocation and conservation. Rent theory, location theory, intertemporal maximization. Natural resource policy formulation. Contemporary Canadian resource problems.

Prerequisite: Economics 357 or consent of the Department.

Economics 477 **H(3-0)**

Regulatory Economics

An introduction to economic regulation, its rationale, form and effects with a focus on the economic theory of regulation and on the practice, structure, and evolution of Canadian regulatory institutions.

Prerequisite: Economics 301 or 309, or consent of the Department.

Economics 479 **H(3-1)**

Experimental Economics

Introduces students to the use of and insights gained from experiments in economic research. Develops many of the concepts from Economics 301/357, shedding new light on the assumptions of rationality, the design of markets, and the implementation of market institutions. Covers not only experimental methods, but also reviews some of the most important papers in the field. As part of the course, students will be participating in a variety of in-class experiments.

Prerequisites: Economics 315 and 357.

Economics 481 **H(3-0)**

Behavioural Economics

Major factors underlying economic behaviour including: various views of the role of rationality in economic analysis and in the economic decision making of individuals and institutions; determinants of individual preferences and decision making procedures; the experimental analysis of economic behaviour; inter-relations between the operation of the economic system and feelings of subjective well-being.

Prerequisite: Economics 357 or consent of the

Department.

Economics 483 **H(3-0)**

History of Economic Thought

Traces the evolution of economic ideas from the earliest times up to and including the contributions of the classical economists and Marx. Emphasis will be on understanding these contributions both in terms of their historical context and their relationship to present-day theories and controversies.

Prerequisites: Economics 301 or 309; and 303 or 313; or consent of the Department.

Economics 491 **H(3-0)**

Comparative Economic Systems

A comparative study of theories of the organization of economic systems with reference to the economic institutions of contemporary economies. Selected

601.03. Cost-Benefit Analysis

601.04. Public Economics

Prerequisites: Economics 529 and 531; or consent of the Department.

Note: Restricted n5/ Masterof Iconomics 5studnt.s

Extensive practicum focused on inquiry, reflective planning, teaching, and assessment practices. Students must design and facilitate case analyses during weekly seminars.

Prerequisites: Education Teacher Preparation 506 and 508.

Note: This course carries a weight of two and one-half full courses.

NOT INCLUDED IN GPA

Education Teacher Preparation 512 M(6-2S-14)

Integration

Integration of theoretical and practical understandings of teaching and learning. Emphasis placed on the relationships among teaching and learning, institutional contexts, professional ethics, and moral dimensions of education.

Prerequisite: Education Teacher Preparation 510.

Note: This course carries a weight of two and one-half full courses.

NOT INCLUDED IN GPA

Education Teacher Preparation 597 H (0-3)

Practicum in Designated Settings

Note: Requires consent of the Division of Teacher Preparation. Normally not available to students registered in the BEd (Master of Teaching Program).

MAY BE REPEATED FOR CREDIT

NOT INCLUDED IN GPA

Education Teacher Preparation 598 F(3-0)

Special Topics in Teacher Preparation

MAY BE REPEATED FOR CREDIT

NOT INCLUDED IN GPA

Education Teacher Preparation 599 H(3-0)

Special Topics in Teacher Preparation

MAY BE REPEATED FOR CREDIT

NOT INCLUDED IN GPA

Instruction offered by members of the Graduate Division of Educational Research.

Associate Dean – C. Webber

Graduate Courses

Educational Research 600 F(3-0)

Seminar for First-Year MA/MSc Students

Will assist students in thinking about research questions and how to prepare a research proposal.

NOT INCLUDED IN GPA

Educational Research 601 H(3-0)

Interpreting Educational Research

Making sense of educational research as theory and practice mutually informing one another.

Intended for MEd students.

Educational Research 603 H(3-0)

Research Methods

Introduction to various approaches to research in education.

MAY BE REPEATED FOR CREDIT

Educational Research 611 H(3-0)

Communication in Educational Administration

To explore dominant areas of interpersonal communication which constantly challenge8mf 0 -1Pods

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Educational Research 659 **H(3-0)**

History of Education

Historical topics in the context of education.

Consult current timetable for offerings.

MAY BE REPEATED FOR CREDIT

Educational Research 667 **H(3-0)**

Second Language Reading and Writing

Research and practice in second language reading and writing; instructional techniques for specific audiences; theories of reading and writing.

Educational Research 669 **H(3-0)**

Aspects of Second Language and Culture

Introduction to research and issues on various aspects of second language and culture.

MAY BE REPEATED FOR CREDIT

Educational Research 671 **H(3-0)**
(formerly Curriculum and Instruction 671.01)

Conceptualizing Educational Technology

Seminar to familiarize students with the terrain of educational technology.

Educational Research 673 **H(3-0)**

Instructional Design

Integration of theory and practice associated with the selection and sequencing of content across the instructional spectrum and the matching of instructional strategies to characteristics of learners and content.

Educational Research 675 **H(3-0)**
(formerly Curriculum and Instruction 661)

Principles of Instructional Development

Topics include the examination of a variety of instructional development models, the systems approach to developing instruction, front-end analysis and needs assessment, risk analysis, constraint analysis, resource analysis, task analysis, and evaluation.

Educational Research 677 **H(3-0)**

Telecommunications in Education

Examination of the role of communications media in current and future educational systems. Particular attention is given to computer-mediated communications, but television, audio, facsimile and other technologies are considered. Readings address issues in innovation and change in education.

Educational Research 679 **H(3-0)**

Special Topics in Educational Technology

Examination of current topics and issues in educational technology and related areas.

MAY BE REPEATED FOR CREDIT

Educational Research 681 **H(3-0)**

Studying Curriculum

Curriculum research, theory, and practice with particular reference to curriculum aims, content, organization and change.

Note: Not open to students with credit in Curriculum and Instruction 605 or Educational Research 665, 669.27 or 699.42.

Note: For Curriculum Master's students.

Educational Research 683 **H(3-0)**
(formerly Educational Research 669.28)

Curriculum Development, Implementation and Assessment

Making sense of what happens when curriculum policy becomes reality and affects students, teachers, parents and politicians.

Prerequisite: Educational Research 681 or equivalent.

Note: Not open to students with credit in Curriculum and Instruction 609.

Educational Research 685 **H(3-0)**

Introduction to Interpretive Curriculum Discourses

An introduction to the field of interpretive work in curriculum theory.

Educational Research 689 **H(3-0)**

Aspects of School Curriculum

Introductory systematic study of research and issues focused on various areas of the school curriculum.

Note: For Master's students.

MAY BE REPEATED FOR CREDIT

Educational Research 690 **F(3-0)**

Professional Project

Seminar course to facilitate the preparation and evaluation of an independent culminating project.

Education Research 691 **H(3-0)**

Critical Issues in Education

Culminating course focusing on the integration and application of major themes covered in student's program.

research on instruction.

Prerequisite: Consent of the Division.

Note: Not open to students with credit in Curriculum and Instruction 703.

Note: Normally restricted to Doctoral students.

Educational Research 785 H(3-0)

Advanced Study of Interpretive Curriculum Discourses

An advanced study of interpretive curriculum discourses focussing on cutting-edge examples of such work.

Prerequisite: Consent of the Division.

Note: Normally restricted to Doctoral students.

Educational Research 789 H(3-0)

Advanced Curriculum Study

Research and issues in the study of a variety of topics and areas concerning the school curriculum.

Prerequisite: Consent of the Division.

Note: Normally restricted to Doctoral students.

MAY BE REPEATED FOR CREDIT

Instruction offered by members of the Department of Electrical and Computer Engineering in the Faculty of Engineering.

Department Head – L.J. Leon

Associate Heads – S.A. Norman (Undergraduate), A. Sesay (Graduate)

Director of Undergraduate Program for Electrical Engineering – L.E. Turner

Director of Undergraduate Program for Computer Engineering – S.A. Norman

Director of Undergraduate Program for Software Engineering – A. Eberlein

Electrical Engineering 007 H(20 hours)

Electrical Engineering Fourth-Year Block Course

This block course is intended to provide the necessary background material to prepare students for the fourth year Team Design Project. Topics covered include: personal responsibilities and interpersonal relationships involved in a team project; team projects from a current industrial perspective; tools to automate project management, e.g. PERT charts, critical path analysis, resource management, report generation and project tracking.

Prerequisite: Fourth year standing in the Department of Electrical and Computer Engineering.

NOT INCLUDED IN GPA

Senior Courses

Electrical Engineering 327 H(3-1T-3/2)

Signals and Transforms

Continuous-time systems and differential equations. Continuous-time impulse response and convolution, characteristic roots and modes. Time-domain analysis of discrete-time systems. Z-transform analysis. Fourier series and Fourier transform.

Prerequisite: Electrical Engineering 329 or 341 or Engineering 325.

Electrical Engineering 329 H(3-1T-3/3)

Circuits for Software Engineers

Basic circuit laws, node and mesh analysis. First order RC circuits. DC and transient analysis. Overview of basic semiconductor devices and circuits. Fundamentals of logic circuits. CAD tools for circuit analysis.

Prerequisite: Physics 259.

Electrical Engineering 341 H(3-1T-3/2)

Circuits I

Definition of linear elements, independent and dependent sources, sign conventions; basic circuit laws, simple resistive circuits; node and mesh analysis. Thevenin, Norton and other theorems; inductance and capacitance. Ac circuit analysis, impedance, admittance, phasor diagrams; average and effective values of waveforms, real, reactive and complex power, power calculations; mutual inductance, ideal transformer, introduction to balanced three-phase circuits, power calculation in three-phase circuits.

Prerequisite: Physics 259.

Electrical Engineering 343 H(3-1T-3/2)

Circuits II

The operational amplifier. Natural and step responses of first order RL and RC circuits. Natural and step responses of RLC circuits. Series and parallel resonance. Laplace transform methods. The Laplace transform in circuit analysis. The transfer function. Fourier series. The Fourier transform. Two-port circuits. Two-port circuit parameters: admittance, impedance and hybrid parameters.

Prerequisites: Electrical Engineering 341 and Applied Mathematics 307.

Electrical Engineering 353 H(3-1T-3/2)

Digital Circuits

Combinational logic: number systems, truth tables, Karnaugh maps, minterms, maxterms. Sequential circuits, JK and D flip flops, state diagrams and synthesis techniques. Memory based logic functions. Gates, buffers, counters, multiplexers, demultiplexers and registers. Medium and large scale integration in sequential design.

Prerequisites: (Computer Science students only) Computer Science 233 and Mathematics 271.

Corequisite: Computer Engineering 339.

Note: Credit for both Electrical Engineering 353 and Computer Science 321 will not be allowed.

Electrical Engineering 361 H(3-1T-3/2)

Electronic Materials

Properties of atoms in materials, classical free electron model, conduction electrons in materials, quantum model and band electrons. Electro-optical and magnetic properties of metals, semiconductors and insulators. Application of electronic materials in semiconductor technology, solid state optical devices, sensors and transducers.

Prerequisites: Physics 259 and one of 269 or 369.

Electrical Engineering 409 H(3-2)

Principles of Software Development

A survey of software design and development topics for Electrical Engineering students. Topics include: key features of an object-oriented programming language, especially inheritance and polymorphism; elements of object-oriented design; programming and application of common data structures; strategies and tools for testing and debugging.

Prerequisite: Computer Engineering 339.

Electrical Engineering 441 H(3-1T-3/2)

Control Systems I

Component block diagram of feedback control systems and examples. Mathematical modelling of dynamic systems; state-space representation and frequency domain representation of dynamic systems. Basic control actions and industrial controllers. Transient response analysis and steady-state error analysis. Root-locus analysis and design. Frequency response analysis; Nyquist stability criterion and analysis. Design and compensation techniques. Introduction to digital control systems.

Prerequisite: Electrical Engineering 327.

Electrical Engineering 453 H(3-1T-3/2)

Digital Systems Design

Design, implementation and testing of a digital system. Mask programmable and field programmable technology. Logic design for integrated systems. Design for testability. Real versus ideal logic design. CAD tools for digital systems design: simulation, synthesis and fabrication.

Prerequisites: Computer Engineering 415 and one of Electrical Engineering 463 or Computer Engineering 467.

Electrical Engineering 463 H(3-1T-3/2)

Electronic Devices and Circuits

Analysis and design of circuits containing diodes, bipolar transistors and MOSFETs. Physical operation of semiconductor devices. Current and voltage characteristics. Regions of operation. Large and small signal models. Diode and transistor circuits.

Prerequisites: Electrical Engineering 343 and 361.

Electrical Engineering 465 H(3-1T-3/2)

Analog Integrated Electronics

Introduction to analog integrated circuits. Review of semiconductor diodes, bipolar and MOS transistors. CMOS, Bipolar and BICMOS technologies. Analog bipolar and MOS subcircuits. Bipolar and CMOS Operational Amplifiers. Non-ideal behaviour of operational amplifiers. Commercial amplifiers. Operational transconductor amplifiers. Applications. Power Amplifiers. Power Supplies.

Prerequisite: Electrical Engineering 463.

Electrical Engineering 471 H(3-1T-3/2)

Analog Communications

Fundamentals of communication systems; signals and system classifications. Signal analysis; Fourier series and Fourier transform. Systems analysis; filters, time-domain and Frequency-domain analysis. Analog modulation; linear continuous wave and nonlinear continuous wave modulation; generation and detection of analog modulated waves. Applications of analog modulation. Noise in analog modulation; comparison of analog modulations.

Prerequisite: Electrical Engineering 327.

Electrical Engineering 475 H(3-1T-3/3)

Fundamentals of Electromagnetic Fields

The Field approach to steady electric and magnetic

fields, electric and magnetic potential gradients. Gauss's laws, Laplace's and Poisson's equations, graphical field mapping, finite difference methods, conservation of charge and equation of continuity. Quasi-static fields, Faraday's law, magnetic circuits and materials. Maxwell's equations, boundary conditions at the interface between two media. Wave equations, uniform plane wave propagation, polarization, loss tangent, skin effect, poynting vector and electromagnetic power flow. Reflection and refraction of uniform plane waves, interference phenomenon, standing wave ratio, impedance matching.

Prerequisites: Physics 259 and Applied Mathematics 309.

Electrical Engineering 489 **H(3-1T-3/2)**

Electric Machines: Steady-State

dc and ac excitation of magnetic circuits; transformers; principles of electromechanical energy conversion. Steady-state analysis and operation of dc, synchronous and induction machines.

Prerequisite: Electrical Engineering 341.

Electrical Engineering 519 **H(3-2)**

Special Topics in Electrical Engineering

Current topics in electrical engineering.

Prerequisite: Consent of the Department.

Note: Consult Department for announcement of topics.

MAY BE REPEATED FOR CREDIT

Electrical Engineering 525 **H(3-2)**
(formerly Electrical Engineering 519.17)

Neuro-Fuzzy and Soft Computing

Neural networks: neuron models and network architectures; preceptrons; Widrow-Hoff learning and the backpropagation algorithm; associative memory and Hopfield networks; unsupervised learning. Fuzzy systems: basic operations and properties of fuzzy sets; fuzzy rule generation and defuzzification of fuzzy logic; fuzzy neural networks. Applications in areas such as optimization, signal and image processing, communications, and control. Introduction to genetic algorithms and evolutionary computing. Introduction to chaos theory.

Prerequisite: Electrical Engineering 327.

Electrical Engineering 527 **H(3-2)**

Design and Implementation of FPGA-Based DSP Systems

The design and implementation of digital systems for digital signal processing applications. Introduction to Hardware Design Languages.

VHDL. Introduction to digital filter design and computational units for digital arithmetic. Interface standards. Interfacing to peripheral devices. Printed circuit board design and implementation. Design for testability.

Prerequisites: Electrical Engineering 453 and 471.

Note: Credit for both Electrical Engineering 527 and either Computer Engineering 519.27 or Electrical Engineering 519.27 will not be allowed.

Electrical Engineering 529 **H(3-1T-1)**

Wireless Communications Systems

Overview of terrestrial wireless systems including system architecture

and industry standards; propagation characteristics of wireless channels; modems for wireless communications; cells and cellular traffic; cellular system planning and engineering; fading mitigation techniques in wireless systems; multiple access techniques for wireless systems.

Prerequisites: Engineering 319 and Electrical Engineering 471.

Note: Credit for both Electrical Engineering 529 and any of Computer Engineering 519.29, Electrical Engineering 519.29 or Software Engineering for Engineers 519.29 will not be allowed.

Electrical Engineering 541 **H(3-1T-3/2)**

Control Systems II

Introduction to sampled-data control systems, discretization of analog systems, discrete-time signals and systems, causality, time-invariance, z-transforms, stability, asymptotic tracking, state-space models, controllability and observability, pole assignment, deadbeat control, state observers, observer-based control design, optimal control.

Prerequisite: Electrical Engineering 441.

Electrical Engineering 559 **H(3-2)**
(formerly Electrical Engineering519.13)

Analog Filter Design

This class deals with the theory and design of active filters, for audio-frequency applications, using op amps. It consists, basically, of two phases. Phase 1 deals with the realization of a given transfer function using cascade of first and/or second-order RC-op amps circuits. In phase II, the transfer functions of filters are studied in combination with frequency-response approximations such as Butterworth, Chebyshev, Inverse-Chebyshev, Cauer (or Elliptic) and Bessel-Thompson.

Prerequisites: Electrical Engineering 465 and 471.

Electrical Engineering 563 **H(3-1T-2)**
(formerly Electrical Engineering 519.02)

Biomedical Signal Analysis

Introduction to the electrocardiogram, electroencephalogram, electromyogram, and other diagnostic signals. Computer techniques for processing and analysis of biomedical signals. Pattern classification and decision techniques for computer-aided diagnosis. Case studies from current applications and research.

Prerequisite: Electrical Engineering 471.

Electrical Engineering 565 **H(3-1T-3/2)**

Digital Integrated Electronics

Linear-wave shaping, nonlinear transfer function realization, semiconductor device switching, charge control analysis, modelling of BJT and MOS switching, BJT and MOS logic, performance and comparison of logic families, tristate logic, semiconductor memories, design and fabrication of digital IC's.

Prerequisite: Electrical Engineering 465.

Electrical Engineering 567 **H(3-1T-3/2)**

CMOS VLSI Engineering

Introduction to CMOS very large-scale integrated (VLSI) circuit design. Review of MOS transistor theory and operation. Introduction to CMOS circuits. CMOS processing technology and design rules. Circuit characterization and performance estimation. CMOS circuit and logic design. VLSI design methods and tools. Basic concepts of design for testability. CMOS subsystem and system design.

Prerequisite: Electrical Engineering 465 or Computer Engineering 467.

Electrical Engineering 569 **H(3-1T-3/2)**

Electronics for Instrumentation

Error analysis. Component specification. Power supplies. Switched power supplies. Operational amplifier non-idealities. Noise in devices. Instrumentation and isolation amplifiers. Logarithmic principles. Multipliers, dividers. RMS to DC conversion. Voltage-to-frequency conversion. Bridge circuits.

Prerequisite: Electrical Engineering 465.

Electrical Engineering 571 **H(3-1T-3/2)**

Digital Communications

Fundamentals of digital communication systems. Digital coding of analog waveforms; digital pulse modulation, pulse code modulation, delta modulation. Intersymbol interference; baseband transmission, correlative coding. Probability theory. Optimal demodulation of data transmission; matched filtering; bit error rate.

Prerequisite: Electrical Engineering 471.

Electrical Engineering 573 **H(3-1T-1)**

Telecommunications and Computer Communications

Fundamentals of telecommunication system and teletraffic engineering; transmission systems; switching networks and congestions. Characterization of teletraffic; queueing theory; mathematical modelling of queueing systems; the birth and death process. Erlang loss and delay formulas; Engset loss and delay formulas. Computer communication networks; multiple access techniques.

Prerequisite: Engineering 319.

Electrical Engineering 575 **H(3-1T-3/2)**

Microwave Circuits and Antennas

Antennas; radiation patterns, arrays, pattern multiplication, aperture antennas, propagation. Microwaves; applications, radiation hazards, waveguides and transmission lines, components, matching klystrons, travelling wave tubes and magnetrons. Solid state microwave devices.

Prerequisite: Electrical Engineering 475.

Electrical Engineering 579 **H(3-1T-3/2)**

Optical Fibre Communications

Electromagnetic wave progagation and Maxwell's equations. Modal analysis of the dielectric slab waveguide together with the step-index and graded-index cylindrical optical fibre. Di En /F2 1 Tf 0 3edisupplies. Oper

ancillary topics that commonly affect project outcome. The experience is gained from a series of guest lectures by industrial practitioners with engineering background. The practice is obtained through the performance of a “customer suggested” team project through the stages of project requirement and specification analysis, high level and detailed low level designs. The project is executed, and progress measured against a plan developed by the team participants.

Prerequisite: Electrical Engineering 007.

Electrical Engineering 585 **H(3-2)**

Introduction to Power Electronics

Commutation. Diode rectifiers. Fully controlled 3-phase rectifiers. Choppers, inverters, ac controllers. Single-phase switch mode converters: dc-to-dc, ac-to-dc, dc-to-ac. Circuit and state-space averaging techniques. Switching devices and magnetics.

Prerequisite: Electrical Engineering 465.

Electrical Engineering 587 **H(3-1.5T-3/4)**

Power Systems: Steady State

Three-phase systems, per unit representation, power system elements and configurations, transmission system representation and performance, load flow studies, symmetrical components, fault studies, HVdc transmission, economics of power generation.

Prerequisite: Electrical Engineering 489.

Electrical Engineering 589Tf 7 0 0 7 Y2-4)

Detection and estimation theory as it is applied in communication systems, as well as measurement systems in radar, biomedical engineering, geomatics etc. The specific topics covered are: Sufficient statistics, Hypothesis testing, Neyman-Person Detectors, Bayesian Detectors, Minimum Variance Unbiased Estimators, Maximum Likelihood Estimators, Cramer-Rao Lower Bounds, Bayesian

Electrical Engineering 685 **H(3-1)**

Digital Control Systems

Analysis and design of sampled-data control systems. Basic concepts of linear discrete-time systems. Norms of signal and systems. State-space models. Discretization of analog systems. Parametrization of all stabilizing controllers. Properties of sampling and hold operations. Stability and tracking in sampled-data systems. Digital design by fast discretization. Modern techniques for optimal control synthesis.

Electrical Engineering 687 **H(3-1)**

Switch Mode Power Converters

Design and analysis of dc-to-dc and ac-to-ac single-phase power converters. Device characteristics. Dc-to-dc topologies, dc-to-ac topologies and ac-to-ac topologies. Linearized models. Classical feedback control; introduction to state-space analysis methods. Input harmonic analysis, output harmonic analysis, and techniques to obtain unity input power factory.

Electrical Engineering 697 **H(3-1)**

Digital Image Processing

Image formation and visual perceptual processing. Digital image representation. Two dimensional Fourier transform analysis. Image enhancement and restoration. Image reconstruction from projections. Image coding for data compression and transmission. Introduction to image understanding and computer vision.

Electrical Engineering 698 **F(0-4)**

Graduate Project

Individual project in the student's area of specialization under the guidance of the student's supervisor. A written proposal, one or more written progress reports, and a final written report are required. An oral presentation is required upon completion of the course. Open only to students in the MEng Courses Only Route.

Electrical Engineering 699 **H(3-1)**

Multidimensional Signal Processing

Characterization of multidimensional (MD) signals, the MD Laplace, Fourier and Z transforms. Practical analog and digital signals and their MD energy density spectra. Aliasing, convolution, boundary conditions, causality, and stability in MD. Characterization of linear shift-invariant systems using MD transform transfer functions. State variable representations of MD systems. Elementary decompositions of MD transfer functions and bounded-input bounded-output stability. Design and implementation of MD digital filters. Applications of MD signal processing in engineering systems. Two- and three-dimensional digital signal processing in seismic, sonar, imaging and broadcast television.

Instruction offered by members of the Faculties of

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Energy and the Environment 699 **H(3-0)**

Topics in Energy and the Environment

Intensive study of selected topics in energy and the environment and related subjects. Course will reflect changing content needs and faculty interests.

Prerequisite: Consent of the Program Director.

MAY BE REPEATED FOR CREDIT

Instruction offered by members of the Faculty of Engineering.

Associate Dean (Academic & Planning) – R.L. Day

Junior Courses

Engineering 201 **H(3-1.5T-3/2)**

Behaviour of Liquids, Gases and Solids

An introduction to the behaviour of fluids and solids; phase transformations, the phase rule and phase diagrams. Ideal and real gases; equations of state and their engineering applications; simple kinetic theory; transport properties of fluids. Liquid state; vapor pressure; shear behaviour; flow of fluids in pipelines. Solids; crystalline and non-crystalline structure; non equilibrium solid phases; electrical and thermal conductivity; dislocations; stress and strain; creep; fracture.

Engineering 205 **H(3-1.5T)**

Engineering Mechanics I

Statics: Force vectors; equilibrium of particles in two and three dimensions; force system resultants; equilibrium of a rigid body in two and three dimensions; trusses; frames, machines and beams. Dynamics: Kinematics and kinetics of particles.

Note: Not open to students with credit in Engineering 203.

Engineering 209 (Economics 209) **H(3-1T)**

Engineering Economics

The basic tools and methodology of engineering economic studies. Topics include investment decisions, theory of replacement, economies of scale, externalities, social decision making and government regulation. Examples are drawn from engineering projects.

Prerequisite: Registration in the Faculty of Engineering with second-year standing or higher. If not registered in the Faculty of Engineering, consent of the Department of Economics.

Engineering 233 **H(3-2)**

Computing for Engineers I

Overview of computer systems. Functions of software components: operating systems, editors, compilers. Programming in a high-level language: selection and loop structures, routines, array and record types, text file operations. Introduction to object-based programming: use of class libraries and construction of simple classes.

Engineering 251 **H(1-4.5)**

Design and Communication I

The principles of engineering design, engineering graphics and written communication learned within a hands-on project-based experience for engineering students. Safety in th e laboratory; working in a team environment; core skills for engineering students; process of engineering design; graphical communication: theory of projection, multiview representation, descriptive geometry, sketching, information for manufacturing; written communication: style, format, organization, preparation and presentation skills. Real-life examples of design and engineering practice across all disciplines. Core competencies will be learned primarily within the context of team-based design projects.

Note: Not open to students with credit in Engineering 215.

Engineering 253 **H(1-4.5)**

Design and Communication II

A continuation of Engineering 251. Students will perform more advanced team-based projects that integrate mathematical, scientific and engineering knowledge and skills. Issues that play critical roles in engineering design will be introduced, such as project management, societal and environmental awareness, health and safety, design for safety, sustainable development, information access.

Prerequisite: Engineering 251.

Senior Courses

Engineering 311 **H(3-1.5T-3/2)**

Engineering Thermodynamics

Thermodynamic systems, properties and state, energy, temperature and the zeroth law, equilibrium, properties of the pure substance, equations of state. Work, reversibility, heat, first law, specific heats, enthalpy, ideal gas, flow systems. Entropy and the second law, Carnot cycle, thermodynamic temperature scale, process equations, cycles, process efficiencies, calculation of entropy change.

Prerequisites: Engineering 201 and Applied Mathematics 217.

Engineering 317 **H(3-1.5T-3/2)**

Mechanics of Solids

Axial-force, shear-force and bending moment diagrams; stress and strain; stress-strain relations; elastic and plastic behaviour; elastic constants; simple statically indeterminate (one-degree) problems; review of moment of inertia, product of inertia and principal axes of inertia; elastic torsion of circular shafts; elastic and plastic bending about principal axes of beams with symmetrical cross-section; composite beams; shear stresses due to bending; Mohr's circle for stress; thin-walled pressure vessels; deflection of beams by integration; Euler buckling.

Prerequisites: Engineering 205 (or 203) and Applied Mathematics 217.

English 364 **F(1-2S-1T)**

Poetry Writing I

Basic instruction in writing poetry, with particular emphasis on the short lyric poem.

Survey of Canadian literature from the beginnings to the present.

Prerequisites: English 354 and one of 301 or 302, or consent of the Department.

Note: Not open to students with credit in English 370.

English 480 **F(3-0)**

Literary Theory

Survey of the major theories of and approaches to literature from classical times to the present.

Prerequisites: English 354 and one of 301 or 302, or consent of the Department.

MAY BE REPEATED FOR CREDIT

English 680 **F(3-0)**

Studies in Literary Criticism

MAY BE REPEATED FOR CREDIT

English 684 **F(3-0)**

Special Topics

MAY BE REPEATED FOR CREDIT

English 696 **F(1-0)**

Studies in Bibliography, Research Methods, and Palaeography

Required of all graduate students who have not had an equivalent course.

Level 3 Courses

English Language Foundation Program 180 F(10-3)

Writing English 3

Writing focuses on developing research skills and perfecting essay writing.

Prerequisite: Advanced English language proficiency as demonstrated by one of the following: (1) Successful completion of English Language Foundation Program 170, 173 and 177; or (2) Entrance Level III performance on the English Language Foundation Program assessment.

Corequisites: English Language Foundation Program 183, 187.

Note: Not available for credit towards a degree/diploma program. Students may take one credit half course, upon approval, while enrolled in Level 3.

English Language Foundation Program 183 H(5-1.5)

Reading English 3

A continuation of English Language Foundation Program 173. Students select texts based upon individual interests.

Prerequisite: Same as English Language Foundation Program 180.

Corequisites: English Language Foundation Program 180, 187.

Note: Not available for credit towards a degree/diploma program. Students may take one credit half course, upon approval, while enrolled in Level 3.

English Language Foundation Program 187 H(5-1.5)

Listening/Speaking English 3

Unites speaking, listening, and reading by discussion in a seminar format based upon texts selected by students.

Prerequisite: Same as English Language Foundation Program 180.

Corequisites: English Language Foundation Program 180, 183.

Note: Not available for credit towards a degree/diploma program. Students may take one credit half course, upon approval, while enrolled in Level 3.

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Instruction offered by members of the Haskayne School of Business.

Entrepreneurship and Innovation Chairperson – L. Donlevy

Note: Students have the opportunity to take courses offered by the Haskayne School of Business without the stated prerequisites, with the written permission of the Associate Dean (Undergraduate Programs) as appropriate, upon the recommendation of the Instructor of the course. However, should a student fail to achieve satisfactory standing in any course for which the stated prerequisite(s) is (are) lacking, he/she may be required to successfully complete the stated prerequisite(s) prior to being permitted to repeat the course. Students are required to have consent of the Haskayne School of Business Office before registering in 600-level courses offered by the Haskayne School of Business .

Junior Course

Entrepreneurship and Innovation 201 H(3-2)
(formerly Venture Development 201)

Introduction to Business Venturing

Introduces students to the various management disciplines from the perspective of creating a new business venture. The primary learning methodology is through a project in which students identify a business opportunity, research the opportunity, write a business plan for the business and present the plan in class.

Note: This course is not available for credit towards the Bachelor of Commerce or Minor in Management and Society.

Senior Courses

Entrepreneurship and Innovation 381 H(3-0)
(formerly Venture Development 381)

Principles of Entrepreneurship

Overview of the process of entrepreneurship with focus on the role of the entrepreneur in new venture initiative and development. Application of knowledge of the processes involved in idea generation and evaluation ending in the technical, market, financial and human resource feasibility of a concept.

Prerequisite: Second year standing or Entrepreneurship and Innovation 201 or consent of the

applications. Conceptual and mathematical bases for two- and three-dimensional computer modeling. Hands-on experience with a range of CAD systems and other computer applications. Discussion of the role of computer systems in design processes.

Prerequisite: Mathematics 30 or equivalent.

Environmental Design 637 **H(3S-0)**

Legal Institutions and the Environment

Sets the legal context for environmental design. Topics include aspects of the legal process such as the adversary system, doctrine of precedent, elements of the constitution, case analysis and statutory interpretation. Individual rights and remedies will also be considered, as well as jurisprudential questions about the function of law.

Environmental Design 639 **H(3-1)**
(formerly Environmental Design 683.88)

Planning Theory

An introduction to planning theory. Develops a critical awareness of key historical, theoretical, and ethical frameworks; legal, political, and economic institutions; and an understanding of their implications for Canadian planning. An integrative normative procedural approach to planning is presented, one which is appropriate for a pluralistic liberal democratic society.

Environmental Design 641 **H(3-3)**

Applications of Plant Ecology to Environmental Management

Fundamental ecological concepts and their applications in Range Management and Forest Management. Range Management section covers such areas as range inventory, classification, assessment, balancing range resource with herd size, productivity and dynamics and various manipulative techniques to improve range productivity. Forest Management section deals with forest use, sustained yield concept, forest and site classification, mensuration, productivity, silviculture, crop rotations, forest planning, conservation and multiple use in forested areas. Weekend field trips to: central Alberta, central British Columbia and the Alberta foothills.

Environmental Design 643 **H(3-0)**

Ecotourism Planning and Management

The definition of ecotourism and assessment of cutting-edge trends in the ecotourism marketplace. Specific needs of public-sector planners and park managers, and concerns of local tour operators and tourism service providers. Managing the impacts of tourism, marketing, establishing partnerships, methods for ensuring sustainability, strategies for communities affected by ecotourism and how to orient the ecotourist.

Environmental Design 645 **H(0-8)**

Site Planning and Design

Site analysis, landscape potentials and constraints, development factors and criteria are discussed and applied to a human settlement project. Small and large scale projects are compared. Primarily studio project work, with lectures on methods and illustrative examples.

Prerequisite: Environmental Design Planning 615 and 633 or equivalent.

Environmental Design 647 **H(3-0)**

Historic Preservation: Principles and Practice

Introduction to the concepts, approaches and practice of historic preservation from both an urban planning as well as an architectural perspective. Building conservation, historic districts, historic site development, ecomuseums, commercial area and neighbourhood revitalization are analysed for both public as well as private sector concerns. North American and European case studies are utilized.

Note: Offered in odd-even dated academic years.

Environmental Design 649 **H(3-0)**

Impact Assessment

Biophysical, economic and social impact assessment will be reviewed in an integrated, interdisciplinary approach which will include lectures, studies of methodologies, theory and practical problems. Federal and various Provincial impact assessment policies and procedures will be considered.

Environmental Design 652 **F(0-16)**

Basic Industrial Design Studio

Basic skills in form-giving for mass produced objects. Principles of two- and three-dimensional composition, space and form; the design process. The application of basic design principles to simple problems in industrial design.

Prerequisite or Corequisite: Environmental Design 533.

Note: Full course offered in single session only.
Note: Open to students in Environmental Design programs and available to students from other faculties with program permission.

MAY BE REPEATED FOR CREDIT

Environmental Design 653 **H(3-0)**

Multimedia for Environmental Design

Laboratory course allowing students the opportunity to develop an understanding of computer multimedia techniques used to create interactive presentations, educational CD-ROM titles and web documents. The elements covered by the course are: visual (still, video and animation techniques), sound (quality and integration), and the use of web-design software.

Note: Not open to students with credit in Environmental Design 683.56 or 697.35.

Environmental Design 657 **H(3-0)**

Landscape Reclamation

Introduction to reclamation planning and practice covering such topics as reclamation goal setting, impact prediction, mitigation, materials handling, landscape reconstruction, revegetation, erosion control and industrial decommissioning. The course will focus on large scale developments such as strip mining, industrial plants and linear disturbances. The course is comprised of lectures, a project and student seminars.

Environmental Design 659 **H(96 hours)**

The Ecology of the Canadian West Coast - A Field Course

A two-week field course conducted in late Spring to acquaint students with the ecosystems of the Canadian West Coast from the marine intertidal zone through mesothermal forest ecosystems to alpine tundra ecosystems. The use of plant ecology to help delineate functional, manageable ecosystem units is emphasized using the taxonomy, autoecology and synecology of some 450 plant species. Selected land use and management problems are observed and discussed. A minimum enrollment for the course is required.

Note: Offered in even-odd dated academic years.

Environmental Design 661 **H(3-0)**

Reviews the history of wildlife management and the

Note: Open only to students in Environmental Design degree programs.

Note: Assumes a working knowledge of statistics.

Environmental Design 723 H(3-0)

International Development Planning: Theory and Practice

Examines strategies for urban development within the context of a globalized economy. Competition for investment, global interdependence, technological change, growing income polarization, and environmental degradation are creating new challenges in the urbanizing world. Planning concepts and policies will be examined in different economic, institutional and cultural settings with an emphasis on economic, social and physical aspects of change. Selected best practices in North America, Western and Eastern Europe will illustrate different approaches to development and sustainability.

Environmental Design 725 H(3-0)

Topics in Wildlife Management and Resource Development

The practice of wildlife management combines the science of ecology with an understanding of human social and economic needs. It acknowledges that the root of environmental problems lies in the economy and human culture. Through a series of assigned readings, seminars and discussions, the course will examine current issues and methods in wildlife management practice, conservation biology, wildlife population management, community-based wildlife management, and environmental impact assessment.

Environmental Design 731 H(3-0)

Cultural Tourism

Designed to provide students with an introduction to the wide range of existing cultural tourism possibilities, while emphasizing the management design and planning dimensions of historic resources (historic sites, buildings, festivals, events and regional heritage initiatives). Case study approach whenever appropriate.

Note: Offered in even-odd dated academic years.

Environmental Design 743 H(0-8)

Studio in Urban Design

These urban design studios explore contemporary problems in urban development and design, and emphasize a concern for place over an extended period of time, human behaviour - built form relationships and environment conservation goals. The approach aims to produce urban design that is locale-specific and yet responsive to changes in the ways we live.

MAY BE REPEATED FOR CREDIT

Environmental Design 747 H(36 hours in Fall or Winter Session)

Management in Environmental Science

Introduces students to Environmental Management Systems and a set of 22 environmental management tools, which can be used by corporations and institutions to reduce their adverse impacts on the environment and to conserve resources. Lectures and seminars will review current practice, theory and provide specific examples. Ways and means of controlling activities of institutions and corporations that affect the environment, rather than on managing the environment.

Environmental Design 749 H(3-0)

Water Management

A broad perspective on water management issues through lectures, seminars, case studies and extensive readings. Water quality, quantity, technology, aesthetics, recreation and in stream uses with an emphasis on Canada and Western Canada in particular. A review of legislation and policy at municipal, provincial, federal and international levels.

Environmental Design 762 F(0-16)

Advanced Studio in Environmental Design

Topics vary from year to year, depending on such factors as current issues and contemporary problems. A number of studio topics may be offered to accommodate a variety of interests.

Note: Full course offered in single session only.

MAY BE REPEATED FOR CREDIT

Environmental Design 783 H(0-3)

Directed Study in Environmental Design

Research, readings or a studio project in architecture, environmental science, industrial design or planning.

Note: Open only to Environmental Design degree students with consent of the Associate Dean (Academic).

MAY BE REPEATED FOR CREDIT

Environmental Design 791 H(0-8)

Studio in Industrial Design

Professional experience in design principles and/or analytical methods, inter-disciplinary approaches and specific skills. Topics vary from year to year, depending on such factors as current issues and contemporary problems. A variety of studios may be offered to accommodate the varied level of student development.

MAY BE REPEATED FOR CREDIT

Environmental Design 792 F(0-16)

Studio in Industrial Design

Professional experience in design principles and/or analytical methods, interdisciplinary approaches and specific skills. Topics vary from year to year, depending on such factors as current issues and contemporary problems. A variety of studios may be offered to accommodate the varied level of student development

Prerequisite or Corequisite: Environmental Design 533.

Note: Full course offered in single session only.

MAY BE REPEATED FOR CREDIT

Environmental Design 793 H(0-8)

Workshop in Industrial Design

Instruction and supervised experience in the use of tools and equipment for the development of study models, prototypes and graphic material related to student projects. Field work and term projects.

793.01. Workshop Skills for Architecture

793.02. Workshop Skills for Industrial Design

793.03. Workshop Skills for Environmental Design.

NOT INCLUDED IN GPA

Environmental Design 799 H(3-0)

Preceptorship

A Preceptorship is a study and training arrangement made between a student and an employer or an equivalent supervisor which has specific educational objectives, a method of evaluation, and is an integral part of a student's Program of Studies. Preceptorships offer a number of benefits: acquiring skills and knowledge which may be better obtained outside the University; developing first-hand experience of professional design practice; preparing for more focused studies in the Faculty; and conducting research. An approved preceptorship assignment is equivalent to full-time studies. Preceptorships are not normally approved until a Program of Study is at least conditionally approved.

MAY BE REPEATED FOR CREDIT

Master's Degree Project. Students in Environmental Design, undertaking their Master's Degree Project, will register in PROJ 777/778.

Instruction offered by members of the Faculty of Environmental Design.

Senior Courses

Environmental Design Architecture 511 H(3-1)

Building Science and Technology I

Functioning of the building enclosure: demonstration

in world view that have altered the course of architecture through the study of selected works of architecture and urbanism.

523.01. History of Architecture and Human Settlements I - Premodern Traditions of the World

523.02. History of Architecture and Human

A research oriented design studio in which students collaborate with faculty in

projects exploring contemporary themes in architecture. Topics vary from year to year and are defined by the current research interests of Faculty. Enrollment may be limited.

Note: Full course offered in single session only.

MAY BE REPEATED FOR CREDIT

A research project under the supervision of one or more faculty members in the Environmental Science program. Formal written and oral reports will be presented as a necessary component of this course.

Prerequisite: Consent of the Environmental Science Program Director.

MAY BE REPEATED FOR CREDIT

Instruction offered by members of the Faculties of Communication and Culture, Fine Arts, and Humanities. For other related offerings, please see the Film Studies listing in the Interest Areas section of this Calendar. For information, contact the program Co-ordinator or one of the faculties listed above.

Junior Course

Film 200 **F(2-3)**

Introduction to Film Studies

An introduction to the techniques and major genres of film, the critical analysis of film, and the history of cinema. Intended to prepare students for further work in Film Studies.

Senior Courses

Film 300 **F(2-3)**

Introduction to Film Theory

An introduction to the theoretical perspectives that have shaped our understanding of film over the past century. Emphasis will be placed on the analysis of various theories relating to the cinema and the impact that film theory has had on practices of film production.

Prerequisite: Film 200.

Film 301 **H(2-3)**

Topic in National Cinema

Topics will explore various aspects of, or historical moments in, a particular nation's cinematic culture.

MAY BE REPEATED FOR CREDIT

Finance 763 **H(3-0)**

Corporate Risk Management

Comprehensive introduction to theory and practice of the management of operational and hazard risks based on contemporary financial theories, including risk identification, loss estimation, risk control, risk financing with insurance and other techniques, captive insurance, crisis management, reinvestment decisions, and enterprise risk management.

Prerequisite: Finance 601 or 651.

Finance 765 **H(3-0)**

Mergers and Acquisitions

A study of economic theory and practical issues around takeover strategies, and takeover defence strategies. Valuation issues, corporate restructuring, corporate governance, and methods of ensuring congruence between management and shareholder goals are also discussed.

Prerequisite: Finance 751 or consent of the business school.

Finance 785 **H(3-0)**

New Venture Finance

Problems of valuing and financing new ventures. Considerable emphasis is placed on deal structuring, both within a case and project context. Valuing a local new venture as well as developing a detailed financial plan, including a recommended deal structure.

Prerequisite: Finance 601 or 651or consent of the business school.

Finance 789 **H(3S-1)**

Seminar in Financial Management

Intensive study and discussion of current literature and research with respect Tw -ielt edanddvce 7dj T* -0.00041Tw (fiting 0 Financia)Tj /F6 1 Tf 0 -1.7656 TD -0.0006 8w [(MerA).729(Y)24.7(BE REPEA0.1(7(TED FOR CREDIT

française. Concepts fondamentaux de la phonologie: inventaire des sons, liaisons, e muet, etc. Analyse contrastive et comparaison avec l'anglais. Applications en classe et au laboratoire.

Préalables: French 215 et 217, ou 220, ou 221, ou autorisation du Département.

Remarque: Non accessible aux étudiants avec accréditation en French 345.

French 359 **H(3-0)**

Histoire des idées

Concepts fondamentaux de l'histoire des idées et panorama de la pensée française sous les diverses

French 559 **H(3-0)**

Littérature et culture françaises du 18e siècle

Étude de textes choisis du Siècle des Lumières en France. Le format et le contenu peuvent varier d'une année à l'autre.

Préalable: Trois demi-cours de français de niveau 400 ou autorisation du Département.

MAY BE REPEATED FOR CREDIT

French 595 **H(3-0)**

Perfectionnement des techniques de recherche

Perfectionnement des techniques de recherche. Préparation de bibliographies spécialisées; l'accent sera mis sur l'analyse des sources secondaires. Rédaction de résumés et de propositions de recherche, selon le format en usage dans l'édition savante contemporaine. Utilisation avancée de la technologie et établissement de bibliographies informatisées.

Préalables: Trois demi-cours de français de niveau 400, ou autorisation du Département.

Remarque: Ce cours est réservé aux étudiants inscrits au programme du baccalauréat spécialisé ("Honours") de français.

French 597 **H(0-3T)**

Mémoire de baccalauréat spécialisé

Préalables: French 595 plus trois demi-cours de français de niveau 400, ou autorisation du Département.

French 599 **H(3-0)**

Études spécialisées de la langue, de la littérature ou de la culture

Séminaire sur des questions d'actualité ayant trait à la langue, à la littérature ou à la culture au sens large. Exemples de sujets traités: la littérature française du Moyen-Age, l'autobiographie, l'écriture des femmes de langue française, le créole dans les écrits de langue française, etc.

Préalables: Trois demi-cours de français de niveau 400, ou autorisation du Département.

MAY BE REPEATED FOR CREDIT

Graduate Courses

(Dans certaines circonstances, les cours de niveau 500 pourront être crédités dans le cadre du programme des études supérieures.)

(Only where appropriate to a student's programme may graduate credit be received for courses numbered 500-599.)

French 605 **H(3-0)**

Problématiques littéraires et culturelles

MAY BE REPEATED FOR CREDIT

French 611 **H(3-0)**

Langue française

MAY BE REPEATED FOR CREDIT

French 615 **H(3-0)**

Images, textes, performance

MAY BE REPEATED FOR CREDIT

French 625 **H(3-0)**

Études cinématographiques

MAY BE REPEATED FOR CREDIT

French 635 **H(3-0)**

Le texte narratif

MAY BE REPEATED FOR CREDIT

French 641 **H(3-0)**

Littérature et culture avant 1800

MAY BE REPEATED FOR CREDIT

French 645 **H(3-0)**

La Modernité

MAY BE REPEATED FOR CREDIT

French 655 **H(3-0)**

Francophonies

MAY BE REPEATED FOR CREDIT

French 665 **H(3-0)**

Études postcoloniales

MAY BE REPEATED FOR CREDIT

French 675 **H(3-0)**

Féminismes et Gender

MAY BE REPEATED FOR CREDIT

French 685 **H(3-0)**

Voix québécoises et canadiennes

MAY BE REPEATED FOR CREDIT

French 691 **H(3-0)**

Autour d'un auteur

MAY BE REPEATED FOR CREDIT

French 695 **H(3-0)**

Profession et recherche

MAY BE REPEATED FOR CREDIT

French 699 **H(3-0)**

Thèmes spéciaux

MAY BE REPEATED FOR CREDIT