Minutes of a meeting of the APPC Subcommittee on Courses and Teaching Programs (SCTP) held **Thursday**, **November 25**, **2004** at 3:00 p.m. in Office of Technology Transfer Conference Room, 3550 University Street.

**PRESENT**: Jim Brawer, Martha Crago (Chair), Sam Drury, Heather Goad, Charlotte Légaré, Scott Matter, Max Reed, Cindy Smith (Secretary)

**REGRETS:** William Hendershot

- 05.01 The Agenda was <u>approved</u> with the following additions:
  - under Business Arising: Faculty of Agricultural and Environmental Sciences [04-SCTP-10-01] and Faculty of Science [04-SCTP-10-09].
- 05.02 The Minutes from the meeting held November 11, 2004 were <u>approved</u> as circulated.

#### 05.03 BUSINESS ARISING

**CORRECTION**: Mr. Pete Barry, Program Coordinator of the McGill School of Environment, requested that the course proposal form for ENVR 301 Environmental Research Design (3 cr.) [approved at SCTP November 28, 2002] be revised to indicate the Administering Faculty as "Science" instead of "Agricultural and Environmental Sciences". He noted that all ENVR courses are administered by the Faculty of Science. The SCTP Chair approved this request.

(a) Faculty of Agricultural and Environmental Sciences [04-SCTP-10-01]

The Chair commented that the program layout for the existing M.Sc. in Bioresource Engineering, as requested by SCTP at the October 21, 2004 meeting, consisted of two sentences. This is insufficiently listed in the Calendar, as the program is not accurately depicted in the Calendar. It was noted that the program layout may be found in CAPP.

(b) Faculty of Science [04-SCTP-10-09]

Associate Dean Morton Mendelson, who attended the SCTP meeting of October 21, 2004 to present the new B.Sc.; Major in Earth System Science (57 or 58 cr.), asked that the Minutes from that meeting be revised. The revision is intended to clarify the participation of the Department of Earth and Planetary Sciences in the creation, establishment, and operation of the McGill School of Environment. The Department of Atmospheric and Oceanic Sciences also actively participates with the McGill School of Environment, especially noted is the cross appointment of a professor within the two units. SCTP accepted Associate Dean Mendelson's suggested revision, which is the following:

- page 5, first paragraph, fourth sentence should simply read: "... and expertise of professors. Therefore, the departments coordinated a program that is intended to provide students with an integrated knowledge of how the earth system operates. As this ..."

On another matter concerning this proposal, SCTP had some additional questions on the proposal that need to be addressed (responses to be forwarded to the SCTP Secretary [cindy.smith@mcgill.ca], quoting document number 04-SCTP-10-09), for expedited approval by SCTP Chair:

- what delineates Earth System Science from the McGill School of Environment;
- are joint appointments being considered with the McGill School of Environment; and
- will courses being considered as part of the Earth System Science be part of the Environment major?

were received for the following previously submitted proposal(s), reviewed by the Chair, and <u>approved</u> on behalf of SCTP.

Faculty of Arts

- new course POLI 652 Ethnic Strife & World Politics (3 cr.) [04-SCTP-10-06; October 21, 2004].

Faculty of Education

- revised course EDSL 310 Third Professional Seminar (3 cr.) [Minor Changes; November 11, 2004] SCTP's suggested description change was revised, as follows, by Professor Caroline Riches: "Focus is on classroom processes such as teaching and learning strategies, lesson planning and implementation, classroom organization and management, and on developing a reflective teaching and learning practice";
- revised course EDSL 415 Fourth Professional Seminar (3 cr.) [Minor Changes; November 11, 2004] –
  SCTP's suggested description change was revised, as follows, by Professor Caroline Riches: "Focus is on development as a TESL professional, preparation for the workplace, and analysis, reflection, problem solving and support of actual teaching practice".

Faculty of Management

- new course MGPO 475 Strategies for Devel Countries (3 cr.) [04-SCTP-11-12; November 11, 2004] confirmation received from Professor Paola Perez-Aleman that a prerequisite is not necessary for this course;
- revised program **B.Com. in General Management; Strategic Management Social Context** (15 cr.) [Minor Changes; November 11, 2004]; it will be reported to APPC for information only;
- revised program **B.Com. in General Management; Strategic Management Global Strategy** (15 cr.) [Minor Changes; November 11, 2004]; it will be reported to APPC for information only.

Faculty of Science

- new program B.Sc.; Major in Earth System Science (57 or 58 cr.) [04-SCTP-10-09; October 21, 2004] revisions and responses received and they have been reviewed by SCTP Chair; new program will be forwarded to APPC for approval;
- new course ESYS 200 Earth System Processes (3 cr.) [04-SCTP-10-09; October 21, 2004];
- new course ESYS 300 Investigating the Earth System (3 cr.) [04-SCTP-10-09; October 21, 2004];
- new course ESYS 301 Earth System Modelling (3 cr.) [04-SCTP-10-09; October 21, 2004];
- new course ESYS 500 Earth System Applications (3 cr.) [04-SCTP-10-09; October 21, 2004];
- new course COMP 680 Mining Biological Sequences (4 cr.) [04-SCTP-10-09; October 21, 2004].

### 05.04 FACULTY OF SCIENCE - 04-SCTP-11-14

Department of Biology BIOL 355 Trees: Ecology and Evolution (3 cr.) New course <u>approved</u>

BIOL 573 Vertebrate Palaeo Field Course (3 cr.)

SCTP's requested changes:

- subject code in box 7 should read "BIOL" not "BIOLOGY"
- course should be indicated as a fall course, as that is when students are required to submit the report <u>SCTP requested</u>:
- confirmation that the course may be a fall course For expedited approval by SCTP Chair

BIOL 592 Integrated Bioinformatics (3 cr.)

SCTP requested:

- confirmation whether this course will be available if the new graduate programs in bioinformatics are not approved
- grade both undergraduate and graduate students the same do not differentiate them

For expedited approval by the SCTP Chair

School of Computer Science

COMP 618 Functional Genomics

SCTP's requested change:

• remove second title from box 8, as this is not permitted

SCTP requested:

• confirmation whether this course will be available if the new graduate programs in bioinformatics are not approved

For expedited approval by the SCTP Chair

COMP 547 Cryptography and Data Security (4 cr.)

Course revisions:

- schedule type addition of 3 hrs/wk of reading and assignments
- credit weight increase from 3 cr.
- prerequisites

Revised course approved

Department of Microbiology and Immunology MIMM 499 Library Research Project (1 cr.) <u>SCTP's suggested change</u>:

 revise proposed description to read: "Supervised exploration of the current scientific literature on an assigned topic of an advanced nature <u>on</u> the general areas of <u>b</u>acteriology, <u>virology</u>, <u>immunology</u> or <u>p</u>arasitology" New course <u>approved</u> with this change; SCTP Secretary will revise the proposal

# 05.05 FACULTY OF ENGINEERING - 04-SCTP-11-15

Department of Civil Engineering and Applied Mechanics **M.Eng. in Civil Engineering; Environmental Engineering** (45 cr.) <u>SCTP's requested change</u>:

 revise last paragraph in the program layout to read: "The Environmental Engineering Option Program is <u>coordinated</u> by the Faculty ..."; to indicate that it is administered by the Faculty of Engineering is incorrect because all graduate programs are administered by Graduate Studies

Revised program approved with this change; SCTP Secretary will revise the proposal

CIVE 514 Structural Mechanics (3 cr.) Course revision:

• retirement

Course retirement approved

CIVE 601 Structural Mechanics (4 cr.) Course revisions:

credit weight increase from 3 cr.

- number change [from CIVE 514]
- description
- SCTP's requested change:

• add restriction that reads: "Not open to students who have taken CIVE 514."

Course revisions <u>approved</u> pending submission of the program revision to the B.Eng. in Civil Engineering to reflect

these course revisions; SCTP Secretary will revise the course proposal

Department of Mechanical Engineering

### **B.Eng. in Mechanical Engineering (Regular)** (112 cr.)

Revised program approved as submitted; it will be reported to APPC for information only

#### **B.Eng.; Honours in Mechanical Engineering** (112 cr.)

Revised program approved as submitted; it will be reported to APPC for information only

#### **B.Eng. in Mechanical Engineering (Regular); Mechatronics Concentration**

As this is not an official program option but, rather, a list of courses used for advising purposes suggested to students, SCTP noted that a program revision proposal is not necessary. Instead, the Department should consider removing the unofficial "Concentrations" from the Calendar and keep for internal advising purposes only.

#### B.Eng. in Mechanical Engineering (Honours); Mechatronics Concentration

As this is not an official program option but, rather, a list of courses used for advising purposes suggested to students, SCTP noted that a program revision proposal is not necessary. Instead, the Department should consider removing the unofficial "Concentrations" from the Calendar and keep for internal advising purposes only.

#### M.Eng. in Mechanical Engineering; Non-Thesis (45 cr.)

Revised program approved as submitted; it will be reported to APPC and CGPS for information only

### MECH 544 Adv Processing Composite Mat (3 cr.)

SCTP's requested changes:

- remove "of" from the title in box 8 as words that do not appear in box 6 are not permitted to be added in box 8
- rewrite proposed description, as it is greater than 50 words; forwarded revised description to SCTP Secretary [cindy.smith@mcgill.ca], who will revise proposal

For expedited approval by SCTP Chair

## MECH 563 Biofluids&Cardiovascular Mech (3 cr.)

SCTP's requested changes:

- revise title from "Biofluids/Cardiovascular Mech" because the elongated version has "and" instead of "/"
- add restriction that reads "Not open to students who have taken CHEE 563."
- SCTP's suggested change:
- revise proposed description to delete first sentence, as this is a definition, and first five words of the second sentence so that it reads "Basic principles of ..."

New course approved with these changes; SCTP Secretary will revise proposal

### MECH 603 Design Project 1 (9 cr.)

Course revisions:

- credit weight increase from 6 cr.
- description
- SCTP's suggested change:
- revise existing description to delete second sentence, as it is information for a course outline Revised course <u>approved</u> with this change; SCTP Secretary will revise proposal

MECH 604 Design Project 2 (3 cr.)

Course revisions:

- credit weight decrease from 6 cr.
- description
- SCTP's suggested change:
- revise proposed description to read: "Second part of a design project ... member"; delete second sentence, as it is information for a course outline

Revised course approved with this change; SCTP Secretary will revise proposal

MECH 656 Fundamentals of Turbulent Flow (4 cr.) SCTP's suggested change:

• revise proposed description to read "An introduction ... turbulent flows<u>, including</u> the turbulent transport of ..." New course <u>approved</u> with this change; SCTP Secretary will revise proposal

Department of Chemical Engineering

CHEE563 Biofluids&Cardiovascular Mech (3 cr.)

SCTP's requested changes:

- revise title from "Biofluids/Cardiovascular Mech" because the elongated version has "and" instead of "/"
- add restriction that reads "Not open to students who have taken MECH 563."
- SCTP's suggested change:
- revise proposed description to delete first sentence, as this is a definition, and first five words of the second sentence so that it reads "Basic principles of ..."

New course approved with these changes; SCTP Secretary will revise proposal

Department of Electrical and Computer Engineering ECSE 436 Signal Processing Hardware (3 cr.) New course <u>approved</u>

## 05.06 FACULTY OF ARTS - 04-SCTP-11-16

Department of Political Science

### M.A. in Political Science; Neotropical Environment (45 cr.)

SCTP requested:

- existing M.A. in Political Science should be revised to reflect the changes made in the existing column, as this program has not been approved as listed; a program revision proposal is required for this program revision
- both existing and proposed columns should completely list Complementary Courses to be chosen [subject code and number, title, and credit weight for each course]; Note: typo in group 1 of Complementary Courses in both columns "an suitable" should read "a suitable"
- indicate credit weight for POLI 644
- change Roman numerals in course titles to Arabic numerals
- submit revised program proposal for the M.A. in Political Science; Neotropical Environment along with the program revision for the M.A. in Political Science [document number 04-SCTP-11-16 REVISED should be quoted]

For review by SCTP

### M.A. in Political Science; Non-Thesis – Neotropical Environment (45 cr.)

SCTP requested:

- existing M.A. in Political Science; Non-Thesis should be revised to reflect the changes made in the existing column, as this program has not been approved as listed; a program revision proposal is required for this program revision
- both existing and proposed columns should completely list Complementary Courses to be chosen [subject code and number, title, and credit weight for each course]; Note: typo in group 1 of Complementary Courses in both columns "an suitable" should read "a suitable"
- indicate credit weight for POLI 644
- change Roman numerals in course titles to Arabic numerals
- second point in list of Complementary Courses should be corrected to read "6-12 additional ..."
- submit revised program proposal for the M.A. in Political Science; Non-Thesis Neotropical Environment along with the program revision for the M.A. in Political Science; Non-Thesis [document number 04-SCTP-11-16 REVISED should be quoted]

For review by SCTP

Department of Sociology

# Ph.D. in Sociology; Neotropical Environment (0 cr.)

SCTP requested:

• indicate credit weight as "0"

- revise existing Ph.D. in Sociology because it does not exist as listed in the existing column; a program revision proposal is required for this program revision
- provide an explanation why courses SOCI 703 and SOCI 704 are Required Courses for the Neotropical Environment option but are not included in the existing Ph.D. in Sociology
- as no 400-level courses are permitted to be listed as program requirements, GEOG 404 should be removed from list of Complementary Courses and put as additional requirements if some students need this course
- both existing program [as listed] and proposed Neotropical Environment option have too many courses for credit and they should be adjusted; the norm is four to six courses in a Ph.D. program
- revise existing program under Complementary Courses to read: "Five <u>complementary</u> courses, at the 500-, 600-, <u>or 700-level</u>, from those ..."
- revise proposed program under Complementary Courses to read: "Five complementary courses, at the 500-, <u>600-</u>, or 700-level, of which ..."
- submit revised program proposal for the Ph.D. in Sociology; Neotropical Environment [document number 04-SCTP-11-16 REVISED should be quoted]

For review by SCTP

SOCI 703 Bibliographic Methods 3 (3 cr.) Review pending resubmission of the Ph.D. in Sociology; Neotropical Environment program proposal

SOCI 704 Bibliographic Methods 4 (3 cr.) Review pending resubmission of the Ph.D. in Sociology; Neotropical Environment program proposal

Department of Anthropology

ANTH 511 Comp. App. to Prehist. (3 cr.)

SCTP's suggested change:

• revise title to read: "Comp<u>utational</u> App. To Prehist.", as this makes more sense and fits the 30-character limit New course <u>approved</u> with this change; SCTP Secretary will revise proposal

ANTH 540 Topics in Antrho, Theory (3 cr.) New course <u>approved</u>

Department of English ENGL 693 Research Methods (3 cr.) New course <u>approved</u>

ENGL 694 Bibliography Seminar (6 cr.) Course revisions:

- credit weight increase from 3 cr.
- description

SCTP's suggested change:

• revise proposed description to read: "An introduction to research methods"

Revised course approved with this change; SCTP Secretary will revise proposal

International Development Studies INTD 200 Intro to Int'l Development (3 cr.) SCTP's requested change:

• revise Effective Term of Implementation to read: "200<u>5</u>09", as it is indicated "200409" and proposals may not be made retroactive

New course approved with this change; SCTP Secretary will revise proposal

#### 05.07 OTHER BUSINESS

#### (a) Minor Changes

The Secretary reported the following minor changes from the Faculties of Arts, Education, Engineering, and Science, which were <u>approved</u> [with a the exception of RUSS 461 and a few suggested changes – see below]. These minor changes will be reported to APPC (and GPSC, if graduate level) for information only.

#### Faculty of Arts

International Development Studies B.A.; Minor Concentration in International Development Studies (18 cr.); B.A.; Major Concentration in International Development Studies (36 cr.); B.A.; Honours in International Development Studies (57 cr.); B.A.; Joint Honours – International Development Studies Component (36 cr.).

School of Computer Science B.A.; Minor Concentration in Computer Systems (18 cr.).

Department of English M.A. in English; Non-Thesis (48 cr.);

ENGL 684 M.A. Research Paper (9 cr.) – credit weight decrease [from 15 cr.], description;

Department of German Studies B.A.; Minor Concentration in German Literature and Culture in Translation (18 cr.); B.A.; Minor Concentration in German Language (18 cr.); B.A.; Major Concentration in German Language and Literature (36 cr.); B.A.; Major Concentration in German Literature and Culture (36 cr.); B.A.; Honours in German Studies (60 cr.).

Department of Russian Studies B.A.; Minor Concentration in Russian Civilization (18 cr.); B.A.; Honours in Russian (60 cr.);

RUSS 460 Russian Novel 1860-1900 1 (3 cr.) – description; RUSS 461 Russian Novel 1860-1900 2 (3 cr.) – description; <u>SCTP's requested</u>: explanation as to why proposed description is the same as that proposed in RUSS 460; forward response to SCTP Secretary [cindy.smith@mcgill.ca]; for expedited approval by SCTP Chair

Faculty of Education **B.A.; Minor Concentration in Education for Arts Students** (18 cr.).

Department of Italian Studies ITAL 380 Neorealism:Roots & Development (3 cr.) – title, description.

Department of Anthropology ANTH 320 Social Evolution (3 cr.) – prerequisites; ANTH 605D1/D2 Culture Area (3 cr.) – term retirement; ANTH 610D1/D2 Social Organization (3 cr.) – term retirement; ANTH 612, D1/D2 Kinship (3 cr.) – retirement; ANTH 618, D1/D2 Stratification (3 cr.) – retirement; ANTH 618, D1/D2 Ethnicity (3 cr.) – term retirement; ANTH 630, D1/D2 Social Change (3 cr.) – retirement; ANTH 633D1/D2 Women and Development (3 cr.) – term retirement;

ANTH 636D1/D2 Urbanization (3 cr.) – term retirement; ANTH 638, D1/D2 Complex Societies (3 cr.) – retirement; ANTH 640D1/D2 Psychological Anthropology (3 cr.) - term retirement; ANTH 642, D1/D2 Anthropology of Education (3 cr.) – retirement; ANTH 646, D1/D2 Cognitive Anthropology (3 cr.) – retirement; ANTH 647, D1/D2 Peopling of the Americas (3 cr.) – retirement; ANTH 650, D1/D2 Anthropology of Religion (3 cr.) - retirement; ANTH 653, D1/D2 Anthro, Languages & Cognition (3 cr.) – retirement; ANTH 654D1/D2 Anthropology of China (3 cr.) - term retirement; ANTH 656, D1/D2 Anthropology of Art (3 cr.) – retirement; ANTH 660D1/D2 Research Methods (3 cr.) - term retirement; ANTH 665D1/D2 Quantitative Methods (3 cr.) – term retirement; ANTH 673D1/D2 Archaeological Field Methods (3 cr.) - term retirement; ANTH 674D1/D2 Archaeological Lab Methods (3 cr.) – term retirement; ANTH 678D1/D2 Ethnohistory (3 cr.) – term retirement; ANTH 681D1/D2 Tutorial Reading 2 (3 cr.) – term retirement; ANTH 682D1/D2 Tutorial Reading 3 (3 cr.) – term retirement; ANTH 705D1/D2 Culture Area (3 cr.) – retirement; ANTH 723 Sem cont Soc Inst in Africa (3 cr.) – retirement; ANTH 725, D1/D2 Seminar: Northern Research (3 cr.) - retirement; ANTH 730D1/D2 Anthropology Workshop (3 cr.) – retirement; ANTH 773 Adv Archaeological Methods (3 cr.) – retirement; ANTH 781D1/D2 Reading and Research (3 cr.) – term retirement; ANTH 783, D1/D2 Seminar: Migration (3 cr.) - retirement.

Department of Sociology

SOCI 672 Seminar: Social Change (3 cr.) – description; <u>SCTP's suggested change</u>: revise proposed description to read "An in-depth ... alternatives. Topics <u>include</u> the immense ... of racial stratification".

Faculty of EducationDepartment of Integrated Studies in Education**B.Ed. in Secondary** (120 cr.);**Baccalauréat en enseignement du français langue seconde** (120 cr.);**B.Ed. in Teaching English as a Second Language** (120-121 cr.);**B.Ed. in Kindergarten and Elementary** (120 cr.);

EDEC 233 first Nations and Inuit Ed (3 cr.) – number [from EDEE 441], restriction; EDEC 260 Philosophical Foundations (3 cr.) – number [from EDER 400], restriction; EDEC 261 Philosophy of Catholic Ed (3 cr.) – number [from EDER 398], restriction; EDEC 262 Media, Tech and Education (3 cr.) – number [from EDEC 402], restriction; EDEC 402 Media, Tech and Education (3 cr.) – retirement; EDEE 441 First Nations and Inuit Ed (3 cr.) – retirement; EDER 398 Philosophy of Catholic Ed (3 cr.) – retirement; EDER 400 Philosophical Foundations (3 cr.) – retirement.

Department of Kinesiology and Physical Education **B.Ed. in Physical Education** (120 cr.); **B.Ed. in Physical and Health Education** (120 cr.). EDFE 200 First Year Field Experience (2 cr.) – description; EDFE 346 Field Experience – Elem School (9 cr.) – retirement; EDFE 377D1/D2 Field Experience Secondary School (Two Subject) (15 cr.) – retirement.

<u>Faculty of Engineering</u> Department of Mechanical Engineering **B.Eng. in Mechanical Engineering (Regular)** (112 cr.); **B.Eng.; Honours in Mechanical Engineering** (112 cr.);

MECH 289 Design Graphics (3 cr.) – consolidation of MECH 290 (3 cr.) and MECH 291 (3 cr.), title, description, restriction;<u>SCTP's suggested change</u>: revise proposed description to read "<u>P</u>reliminary concepts of design, <u>including</u> free-hand sketching, fundamentals of geometry construction, and technology of object representation"; MECH 290 Graphics 2 (3 cr.) – retirement; MECH 291 Graphics (3 cr.) – retirement; MECH 413 Control Systems (3 cr.) – retirement;

MECH 513 Control Systems (3 cr.) – number [from MECH 413], description; <u>SCTP's suggested change</u>: remove from proposed description the last two words, "Case studies"; this information goes in the course syllabus.

Department of Electrical and Computer Engineering ECSE 492 Optical Communications Lab (2 cr.) – prerequisites, corequisites; ECSE 512 Digital Signal Processing 1 (3 cr.) – schedule type [addition of hrs/wk of Tutorial = 9 hrs/wk].

<u>Faculty of Science</u> Faculty of Education **B.Sc.; Minor in Education for Science Students** (18 cr.).

Department of Biology BIOL 112 Cell and Molecular Biology (3 cr.) - description; BIOL 202 Basic Genetics (3 cr.) – restriction; BIOL 205 Biology of Organisms (3 cr.) – restriction; BIOL 240 Monteregian Flora (3 cr.) – description, restriction; BIOL 308 Ecological Dynamics (3 cr.) – description; BIOL 313 Eukaryotic Cell Biology (3 cr.) – prerequisites, description; BIOL 331 Ecology/Behaviour Field Course (3 cr.) – description, supplementary info; BIOL 352 Vertebrate Evolution (3 cr.) – description; BIOL 358 Canadian Flora (3 cr.) – retirement; BIOL 389 Laboratory in Neurobiology (3 cr.) - description; BIOL 432 Limnology (3 cr.) – schedule type [addition of 3 hrs at Field Station], prerequisites; BIOL 522 Plant Molecular Biology Seminar (3 cr.) - retirement; BIOL 524 Topics in Molecular Biology (3 cr.) – prerequisites, description; BIOL 530 Neural Basis of Behaviour (3 cr.) - prerequisites, description; BIOL 531 Neurobiology Learning Memory (3 cr.) - prerequisites, restriction; BIOL 540 Ecology of Species Invasions (3 cr.) - description.

School of Computer Science

COMP 102 Computers and Computing (3 cr.) – description;

COMP 360 Algorithm Design Techniques (3 cr.) – prerequisites.

### (b) **CORRECTION NOTED**

SCTP approved the new Ph.D. in Biology; Neotropical Environment (0 cr.) program on April 26, 2001. Course BIOL 702 was incorrectly listed by the Department of Biology as 0 cr. in both the existing and proposed columns. It should have been indicated as 6 credits in both columns [the existing and proposed programs] and this error will be corrected in Graduate Studies.

## (c) CHAIR'S COMMENT

The Chair discussed the issue of not permitting undergraduate-level courses in graduate programs. Recently, it has come to SCTP's attention that some departments are not aware of this and are not clear on the reasoning. Therefore, the Chair noted that she will gather the details of why this is not permitted and provide a rationale, which will be distributed to individuals in charge of faculties' Program Review Process and to graduate program directors. In the meanwhile, it was suggested that the Director of Graduate Studies correct these instances in the Graduate and Postdoctoral Studies Calendar and return the section back to the department involved so that they are aware.

It was also noted that this would be a good opportunity for faculties to renumber 400-level courses that would be more appropriate at the 500 level.

The meeting ended at 4:15 pm.