UNIVERSITY OF CALGARY

DEPARTMENT OF GEOSCIENCE
COURSE OUTLINE

1. **Course:** GLGY 535, Early Earth Evolution

   Lecture Sections:

   L01: MoWe, 14:00-15:15, ICT 121
   Dr. R. Nair, Office: ES 152, Ph. 403-220-4823, rnair@ucalgary.ca, Office Hours: By appointment

   Course website or Desire 2 Learn (D2L) GLGY 535 Early Earth Evolution

   Geoscience Department ES 118, 403-220-5841, geoscience.ucalgary.ca, geosci@ucalgary.ca

2. **Prerequisites:** Geology 443. See also Geology Course Descriptions of the University Calendar.
   Antirequisites: Credit for both Geology 535 and 599.18 will not be allowed.

3. **Grading:** The University policy on grading and related matters is described sections F.1 and F.2 of the online University Calendar. In determining the overall grade in the course the following weights will be used:

Assignments, Review summary (lab)	15%	
Quizzes (lab)	15%	
Seminar Participation (lab)	10%	
Lecture Midterm test	15%	(Oct 27)
Review Project (oral presentation)	10%	
Review Project (Term Paper)	20%	
Lecture Final Examination	15%	(To be scheduled by the Registrar)

Need to obtain a minimum of 50% in the lecture tests (mid-term and lecture combined) and in the lab review summaries for a passing grade**.**

Each piece of work (assignment, laboratory report, midterm test or final examination) submitted by the student will be assigned a percentage score. The student's average percentage score for the various components listed above will be combined with the indicated weights to produce an overall percentage for the course, which will be used to determine the course letter grade, bearing in mind that an F grade will result if the student does not pass 50% the lecture exam component and the lab review summaries. The following grade conversion scheme will be used in determining the final letter grade for the course.

Grade	Percentage
A+	>90
A	85-89
A-	78-84
B+	72-77
B	68-71
B-	64-67
C+	60-63
C	57-59
C-	54-56
D+	51-53
D	49-50
F	<49

4. **Missed Components of Term Work:** The regulations of the Faculty of Science pertaining to this matter are found in the Faculty of Science area of the Calendar in Section 3.6. It is the student's responsibility to familiarize himself/herself with these regulations. See also Section E.6 of the University Calendar

5. **Course Materials:**
Recommended Textbook
Title: Early Earth Systems: A Geochemical Approach
Author: Rollinson, Hugh R.
Publisher: Wiley-Blackwell
Year: 2007
ISBN-13: 978-1405122559

Material from outside this textbook will be regularly discussed during the course. Students are responsible for attending lectures and taking adequate notes. Instructor will not provide supplementary notes or any annotations made during the lectures.

6. **Examination Policy**: Lecture examinations are closed book. Students should also read the Calendar, Section G, on Examinations.

7. **Writing across the curriculum statement:** In this course, the quality of the student's writing particularly writing to a scientific audience in laboratory summaries and the final term paper will be a factor in the evaluation of those reports. See also Section E.2 of the University Calendar.

8. **OTHER IMPORTANT INFORMATION FOR STUDENTS:**

(a) **Academic Misconduct:** (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under Section K. Student Misconduct to inform yourself of definitions, processes and penalties

(b) **Assembly Points:** In case of emergency during class time, be sure to FAMILIARIZE YOURSELF with the information on assembly points.

(c) **Academic Accommodation Policy:** Students with documentable disabilities are referred to the following links: Calendar entry on students with disabilities and Student Accessibility Services.

(d) **Safewalk:** Campus Security will escort individuals day or night (http://www.ucalgary.ca/security/safewalk/). Call 220-5333 for assistance. Use any campus phone, emergency phone or the yellow phones located at most parking lot pay booths.

(e) **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). As one consequence, students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information see also http://www.ucalgary.ca/secretariat/privacy.

(f) **Student Union Information:** VP Academic Phone: 220-3911 Email: suvpaca@ucagary.ca.
SU Faculty Rep. Phone: 220-3913 Email: sciencerep@su.ucalgary.ca; Student Ombudsman

(g) **Internet and Electronic Device Information:** You can assume that in all classes that you attend, your cell phone should be turned off unless instructed otherwise. Also, communication with other individuals, via laptop computers, Blackberries or other devices connectable to the Internet is not allowed in class time unless specifically permitted by the instructor. If you violate this policy you may be asked to leave the classroom. Repeated abuse may result in a charge of misconduct.

(h) At the University of Calgary, feedback provided by students through the Universal Student Ratings of Instruction (USRI) survey provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses (www.ucalgary.ca/usri). Your responses make a difference - please participate in USRI Surveys.

Department Approval: ORIGINAL SIGNED Date: September 05 2014

535 Early Earth Evolution Fall 2014 Tentative Schedule

Week	Date	Day	Lecture number	TOPICS	LABS
1	Sept. 8	M	1	Introduction	**Meet and Greet Lab**
	Sept. 10	W	2	Application of long-lived radiogenic isotopes for Early Earth	
2	Sept. 15	M	3	Application of long-lived radiogenic isotopes for Early Earth	LAB 1
	Sept. 17	W	4	Application of short-lived radiogenic isotopes for Early Earth	
3	Sept. 22	M	5	Early Earth Environment: Deep Earth and Surface	LAB 2
	Sept. 24	W	6	Early Earth Environment: Deep Earth and Surface	
4	Sept. 29	M	7	Earth Accretion and differentiation; core formation	LAB 3
	Oct. 1	W	8	Establishing the Composition of Earth; Meteorites	
5	Oct. 6	M	9	Establishing the Composition of Earth-Bulk Silicate Earth	LAB 4
	Oct. 8	W	10	Establishing the Composition of Earth-Crust	
6	Oct. 13	M		**Thanksgiving Day No Class**	LAB 5
	Oct. 15	W	11	Origin and evolution of Earth's hydrosphere/atmosphere	
7	Oct. 20	M	12	Origin and evolution of Earth's hydrosphere/atmosphere	LAB 6
	Oct. 22	W	13	Origin and evolution of Earth's hydrosphere/atmosphere	
8	Oct. 27	M		**EXAM 1**	LAB 7
	Oct. 29	W	14	Early Crust	
9	Nov. 3	M	15	Precambrian Sedimentary Systems	LAB 8
	Nov. 5	W	16	Precambrian Sedimentary Systems	
10	Nov. 10	M		**Reading Day No Class**	No lab-Reading Days
	Nov. 12	W	17	Crustal Growth Models	
11	Nov. 17	M	18	Origin of Archean TTG Suite and Precambrian Geodynamics	Project Presentation
	Nov. 19	W	19	Origin of Archean TTG Suite and Precambrian Geodynamics	
12	Nov. 24	M	20	Subcontintental Mantle Lithosphere Evolution	Project Presentation
	Nov. 26	W	21	Subcontintental Mantle Lithosphere Evolution	
13	Dec. 1	M		PROJECT PRESENTATIONS	Project Presentation
	Dec. 3	W			

Final Exam will be scheduled by the registrar