We acknowledge and respect the Lak<sup>w</sup> anan (Songhees) and X<sup>w</sup> sepsam (Esquimalt) Peoples on whose territories the University of Victoria stands, and the Lak<sup>w</sup> anan and WSANEC Peoples whose historical relationships with this land continue to this day.

# Course Outline Econ 333-A01 Introduction to Economic Growth (CRN: 11110) Fall 2025

**Instructor:** Alok Kumar

Office: BEC 334

Class: Tuesday, Wednesday and Friday. 11:30 -12:20, COR A121

Office Hours: Monday, 11:00-13:00, BEC 334

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Office Hours: TBA

**Teaching Modalities and Teaching Expectations**: This course is face to face and all exams are held in person.

#### Course Description

Countries differ widely in terms of their per-capita income and growth performance. Some countries have high per-capita income and others low. This course will focus on analyzing and understanding the growth process and major factors hindering it. In particular, it will examine the role of investment, human capital, technology diffusion, R & D activities and government policies in the growth process. It will analyze the interaction between environment and growth. Students will be introduced to variety of growth models and empirical methods used to analyze these issues. Students are expected to be familiar with basic calculus (derivatives and integrals) and statistical and econometric methods.

**Prerequisites**: Complete ECON 204 - Intermediate Macroeconomics and one of the following ECON 246 - Statistical Inference or STAT 261 - Introduction to Probability and Statistics II.

# Learning Outcomes

Students will learn to:

- Characterize growth process using cross-country time-series data.
- Use regression methods to test the convergence process and implications of growth models (growth regressions).
- Use various types of growth models to analyze the growth process.
- Analyze the role of human capital, R & D activities and technology diffusion in the growth process.
- Analyze the interaction among population, environment and growth.

#### Recommended Textbook and Other Material:

Introduction to Economic Growth, C. I. Jones and D. Vollrath, Norton. This is a standard under-graduate text-book for economic growth. The 4th edition (2024) is the latest edition of the book, but you can use the 3rd edition as well.

#### Grading:

Grading will be based on a take-home assignment, five in-class exercises, two mid-term examinations and a final examination. Weights: Take-Home Assignment -20%, In-Class-Exercises -20%, Mid-Term Examination -30%, Final Examination -30%.

**Take-Home Assignment:** Due Date: Tuesday, 7th October. The assignment must be submitted in class as a hard copy. It must be **properly stapled and typed**. Email submissions will not be accepted. I will post this assignment on **Brightspace** at least two weeks before the due date. Late submissions will not be marked.

### Due Dates for Examinations:

Mid-Term Examination I: Duration: 40 Minutes, 13:30-14:10, Friday, October 3rd, in class.

Mid-Term Examination II: Duration: 40 Minutes, 13:30-14:10, Wednesday, November 5th, in class.

**Final Examination:** Duration: 90 minutes, Time and Date TBA. The final examination will be cumulative and will be based on all the material covered in the course.

In-Class Exercises: In-class exercises must be done in class on the due dates given below. Students will get 20 minutes to complete these exercises towards the end of class. These exercises will be set such that they can normally be done within 15 minutes so that every student has sufficient time to answer them. I will post a set of questions on **Brightspace** one week in advance on which in-class exercises will be based. This will allow students ample time to prepare for these questions. Students will be asked to answer a sub-set of these questions in class. Grades for in-class exercises will be based on the **best 3 out 5**. Thus the best three in-class exercises will have weight of 6.33% each.

#### Due Dates:

1st in-class exercise: Tuesday, 16th September 2nd in-class exercise: Friday, 26th September 3rd in-class exercise: Friday, 17th October 4th in-class exercise: Wednesday, 29th October 5th in-class exercise: Friday, 21st November

## **Important Remarks**

- 1. Examinations and in-class exercises must be written in ink. The take home assignment must be typed.
- 2. In order to pass this course students must attempt the final examination at least one mid-term examination.
- 3. If you miss the take-home assignment or any in-class exercises no makeup assignment/exercises will be given.
- 4. The use of AI is not permitted for doing take-home assignment. Should you violate this rule, you will have violated UVic's Policy on Academic Integrity available at

- https://www.uvic.ca/calendar/future/grad/index.php#/policy/BJujesM\_E and a complaint against you under this policy will be filed accordingly.
- 5. The assignment and in-class exercises will help you in learning the subject and prepare for examinations. However, they are not sufficient to do well in examinations and have a good grasp of the course material. Students are expected to go through all the reading material and regularly attend the lectures.

### **Topics**

- 1. Introduction Lecture Slides
- 2. Math Preliminaries Lecture Slides
- **3. Basic Solow Growth Model** Chapter 2 of 3rd or 4th ed. and Lecture Slides
- **4. Solow Growth Model With Human capital** Chapter 3 of 3rd ed. and Lecture Slides
- **5.** Convergence and Growth Regressions Chapter 3 of 3rd or 4th ed. and Lecture Slides
- 6. Ideas and Growth Chapter 4 of 3rd or 4th ed. and Lecture Slides
- **7. Research and Development and Growth** Pages 97-111 Chapter 5 of 3rd ed. or Pages 83-96 Chapter 5 of 4th ed. and Lecture Slides
- **8. Technology Diffusion, Openness and Growth** Chapter 7 of 4th ed. or Chapter 6 of 3rd ed. and Lecture Slides.
- **9. Social Institutions and Growth** Chapter 8 of 4th ed. or Chapter 7 of 3rd ed. and Lecture Slides
- 10. Environment and Growth Chapter 10 of 3rd or 4th ed. and Lecture Slides
- 11. Population and Growth\* Chapter 9 of 4th ed. Chapter 8 of 3rd ed. and Lecture Slides
- \* if time permits.

# **Some Important Comments**

- 1. Grade Concerns: Students who have questions or concerns regarding their grade should discuss with me during office hours. All concerns must be brought to my attention no later than one week after the graded material was returned. After one week, any assigned grade is final.
- 2. **Failed Exams:** Failed exams cannot be retaken and no extra work can be done to improve your grade.
- 3. Make-Up Mid-Term Exams: If a student misses midterm examinations due to health reasons, family afflictions or other unforeseen circumstances, it must write the make-up mid-term examinations. The first make-up examinations will be conducted on Friday, 24th October and the second one on Friday, 14th November. Both examinations will take place in the David Turpin Building (DTB) A102 between 15:00-15:40. A student wishing to write a make-up mid-term examination must fill and submit the in-course concession form and email it to me at kumara@uvic.ca. The incourse concession form is available at https://www.uvic.ca/students/academic/concessions-accommodations/request-for-academic-concession/forms/uvic\_undergraduate\_request\_for\_in-course\_extension.pdf. Only those students whose requests have been approved by me will be able to write the make-up exam.

In the event that you miss the make-up exam due to illness or family affliction or other unforeseen circumstances, please consult the Academic Concessions portion of the Registrar's website to determine whether you qualify for a late drop or a withdrawal under extenuating circumstances.

- 4. **Plagiarism and Cheating:** Students must abide by UVic academic regulations and observe standards of scholarly integrity (no plagiarism or cheating). Students who are found to have engaged in unethical academic behavior are subject to penalty by the University. The Library web-site has an excellent description of plagiarism which you may wish to consult <a href="http://library.uvic.ca/site/lib/instruction/cite/plagiarism.html">http://library.uvic.ca/site/lib/instruction/cite/plagiarism.html</a>.
- 5. The university reserves the right to use a plagiarism software to detect violations of academic integrity.
- 6. **Policy on Inclusivity and Diversity:** The University of Victoria is committed to promoting, providing and protecting a positive and safe learning and working environment for all its members.

- 7. **Travel Plans:** Students are advised not to make travel plans until after the examination timetable has been finalized. Students who wish to finalize their travel plans at an earlier date should book flights that depart after the end of the examination period (see the University Calendar). There will be no special accommodation if travel plans conflict with the examination.
- 8. **Letter Grading:** Numerical score (%) equivalencies used in the Department are as follows:

$A+ \ge 90\%$	B+ 77-79%	C+ 65-69%	F < 50%
A 85-89%	В 73-76%	C 60-64%	
A- 80-84%	B- 70-72%	D 50-59%	

For the grading scale and expectations, please see http://web.uvic.ca/calendar2017-05/undergrad/info/regulations/evaluation.html#.

- 9. **DEF Grade:** Students who have not completed all course requirements at the time of grade submission are advised to obtain a *Request for Academic Concession* form for a DEF grade.
- 10. **Course Policies:** The University and the Departmental course policies can be found at

https: //www.uvic.ca/socialsciences/economics/undergraduate/undergraduate-courses/course-policies-4x/index.php.

This document summarizes departmental and university policies on academic concessions, academic integrity (plagiarism and cheating), attendance, grading, inclusivity and diversity, late adds, late assignments, repeating courses, review of an assigned grade, students with a disability, term assignments and debarment from exams, end-of-term travel plans, waitlists, and sexualized violence prevention and response.

- 11. Add and Drop Deadlines: Drop Dates: 100% Fee Reduction: September 16; 50% Fee Reduction: October 7; No Fee Reduction: October 31. Add Deadline: September 19.
- 12. **E-Mails:** Emails should be limited to critical matters, such as inability to attend class, an exam, or prolonged illness, and should include the course name and number in the subject line. Questions on course material should be asked during classes or office hours. The standard format for writing a letter

must be used. This means it should start off with a salutation (e.g. Dear) include full sentences and conclude with a signature that includes your name (e.g. Sincerely, your full name) and student number (V#). Text message lingo should not be used.

- 13. It is the responsibility of students to check their registration status and keep it up to date.
- 14. Sexualized Violence Prevention and Response: UVIC takes sexualized violence seriously, and has raised the bar for what is considered acceptable behaviour. Students are encouraged to learn more about how the university defines sexualized violence and its overall approach by visiting www.uvic.ca/svp . If you or someone you know has been impacted by sexualized violence and needs information, advice, and/or support please contact the sexualized violence resource office in Equity and Human Rights (EQHR). Contact svpcoordinator@uvic.ca.
- 15. From time to time there will be other announcements and they will be posted on BRIGHTSPACE. It is the responsibility of students to visit BRIGHTSPACE regularly.

Important Note: I value your feedback on this course. Towards the end of term you will have the opportunity to complete a confidential course experience survey (CES) regarding your learning experience. The survey is vital to providing feedback to me regarding the course and my teaching, as well as to help the department improve the overall program for students in the future. When it is time for you to complete the survey, you will receive an email inviting you to do so. If you do not receive an email invitation, you can go directly to http://ces.uvic.ca. You will need to use your UVic NetLink ID to access the survey, which can be done on your laptop, tablet or mobile device. I will remind you nearer the time, but please be thinking about this important activity, especially the following three questions, during the course.

- 1. What strengths did your instructor demonstrate that helped you learn in this course?
- 2. Please provide specific suggestions as to how the instructor could have helped you learn more effectively.
- 3. Please provide specific suggestions as to how this course could be improved.