This course covers the following topics:

- Correctness and complexity
- Divide and conquer
- Graph algorithms
- Greedy algorithms
- Dynamic programming
- Complexity classes
- Reductions
- Approximation algorithms

Instructor: Christopher Siu, cesiu@calpoly.edu

Lectures:
- Section 07: MWF, 8:10am–9:00am, online  
  [https://calpoly.zoom.us/j/204313167]
- Section 05: MWF, 3:10pm–4:00pm, online  
  [https://calpoly.zoom.us/j/188596308]

Labs:
- Section 08: MWF, 9:10am–10:00am, online  
  [https://calpoly.zoom.us/j/421186811]
- Section 06: MWF, 4:10pm–5:00pm, online  
  [https://calpoly.zoom.us/j/519499967]

Office Hours: MWF, 10:10am–1:00pm, online  
  [https://calpoly.zoom.us/j/258970619]  
  TR, 10:40am–2:00pm, online

Course Website: You will find all course information on Canvas.
This syllabus is at [https://users.csc.calpoly.edu/~cesiu/csc349/syllabus.pdf]

Supplementary Texts:

Grade Breakdown:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>0%</td>
<td>A</td>
</tr>
<tr>
<td>Quizzes (5)</td>
<td>30%</td>
<td>B</td>
</tr>
<tr>
<td>Assignments (8)</td>
<td>40%</td>
<td>C</td>
</tr>
<tr>
<td>Final Exam</td>
<td>30%</td>
<td>D</td>
</tr>
</tbody>
</table>

-plus and -minus grades at 2% offsets.
Rounding done on a case-by-case basis.

Homework and Quizzes:
There will be a take-home quiz given approximately every other Friday, beginning with the second full week of instruction, except when there is an academic holiday. There will be no make-up quizzes. Homework will not be collected, however, quiz problems will be drawn from the homework or based on those in the homework.

Assignments:
Programming assignments will consist of the following:

**Pseudocode**: A language-agnostic description and analysis of your solution, which must be demoed by the end of the lab period on the day the assignment is due. You are expected to come to lab prepared to demo.

**Implementation**: The source code of your solution, which must be submitted electronically via GitHub Classroom for automated grading at the end of the day the assignment is due.

Programming assignments may be submitted up to one class day late for up to 70% credit.
Important Dates:

- **Common Final Exam:**
  Monday, June 8th, 7:10pm–10:00pm, online
  [link](https://calpoly.zoom.us/j/98416398539)
- No Class:
  - Monday–Friday, March 30th–April 3rd
  - Monday, May 25th
- Quiz 1: Friday, April 17th (all day)
- Quiz 2: Friday, May 1st (all day)
- Quiz 3: Friday, May 8th (all day)
- Quiz 4: Friday, May 22nd (all day)
- Quiz 5: Friday, June 5th (all day)

Whom to Contact:
Contact your fellow students if you have missed class and want to know what was covered; I will not reiterate lectures if you miss class. Contact me with all other questions, including any questions about grading.

Students with Disabilities:
If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and the Disability Resource Center, Building 124, Room 119, at (805) 756–1395, as early as possible in the term.

Classroom Etiquette:
You must have access to a computer, tablet, or phone in order to access online lectures, and you are free to use these and other electronic devices during online lectures, quizzes, and exams. However, out of respect for your classmates, please keep your microphone muted during lectures unless called upon.

- [link](https://www.sciencedirect.com/science/article/pii/S0360131512002254)

Attendance:
Attendance is always expected but only required on days when a quiz is given or an assignment is due.

Academic Integrity:
The university does not condone academic cheating or plagiarism in any form. Students are expected to behave in accordance with the university’s expectations. I encourage you to collaborate in your homework assignments and program pseudocode; however, quizzes, exams, and program implementations must be solitary efforts. Collaboration includes but is not limited to:

- Copying even a single line of another student’s code or of code found online
- Reading, writing, or discussing any part of another student’s code
- Transferring, publishing, or otherwise distributing your code to other students

Cheating requires, at minimum, a grade of ‘F’ given for the assignment, exam, or task to all students involved.

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1 Portions of this course adapted from material by Dr. Theresa Migler.
2 That is, an ‘A−’ requires a grade of at least 90%; a ‘B+’, 88%; and so forth.
3 I reserve the right to review your submitted code manually and adjust your automated grade accordingly.