

# MAT 342 - Applied Complex Analysis

## Summer II 2021

- Instructor: Conghan Dong  
Email: conghan.dong@stonybrook.edu  
Office Hours: TBA
- Dates: July 5 - August 14, Tu&Th 1:30pm-4:55pm
- Description: This online course will cover fundamental concepts in complex analysis including holomorphic functions, Cauchy integral theorem, power series and Laurent series, residue theorem and applications. During the scheduled class time, the instructor will meet with the class via zoom to deliver the lecture.
- Textbook: *Complex Variables and Applications (9th edition) by Brown and Churchill* ;  
The instructor will mainly follow his own lecture notes, which will be available on Blackboard.
- Office Hours: To take place via zoom at scheduled time, will need to be scheduled via email by appointment.
- HW and Exams: There will be four weekly homework and two exams. Exam1 will be taken on Jul.22 in week 3 and Exam2 on Aug.12 in week 6. Exams will become available on blackboard at scheduled time. You will write out your solutions on paper, and upload them to blackboard. The exams will be proctored via Zoom and you are required to turn on your videos. You are allowed to consult textbooks and lecture materials, but you are expected not to discuss with anyone.
- Grading: HW 60% + Exam1 20% + Exam2 20%
- Schedule: (To be Updated)

Weeks	Topics	HW&Exam
Week 1 (07/06,07/08)	Complex plane	HW1 (due 07/12)
Week 2 (07/13,07/15)	Holomorphic functions	HW2 (due 07/19)
Week 3 (07/20,07/22)	Cauchy theorem	Exam1 (07/22)
Week 4 (07/27,07/29)	Series expansion	HW3 (due 08/02)

Weeks	Topics	HW&Exam
Week 5 (08/03,08/05)	Residue theorem	HW4 (due 08/09)
Week 6 (08/10,08/12)	Applications	Exam2 (08/12)

- Student Accessibility Support Center Statement. If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Student Accessibility Support Center, ECC (Educational Communications Center) Building, Room 128, (631)632-6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential. Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and Student Accessibility Support Center. For procedures and information go to the following website: <http://www.stonybrook.edu/ehs/fire/disabilities>.
- Academic Integrity Statement. Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty is required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology & Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty please refer to the academic judiciary website at [http://www.stonybrook.edu/commcms/academic\\_integrity/index.html](http://www.stonybrook.edu/commcms/academic_integrity/index.html)
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