



## **Course Title**

Theory of functions of a complex variable 2

### Lecturer

Oleg Ivrii

Semester

Spring

**Course requirements** 

Theory of functions of a complex variable 1

#### **Final grade components**

Exam: 80%, Homework: 20%

# **Course schedule**

Week	Subject and Requirements (assignments, reading materials, tasks, etc.)
1	Topology of uniform convergence on compact subsets
2-3	Infinite sums and infinite products
4	Gamma and zeta functions
5	Interpolation: the theorems of Mittag-Leffler and Weierstrass
6-7	The Riemann mapping theorem. Schwarz-Christoffel formula.
8	Riemann surfaces defined by algebraic equations. Projective space.
9-10	Uniformization of doubly connected domains and complex tori. Weierstrass p-function.
11-12	Modular functions. Picard's little theorem.
13	Circle packing

# **Required course reading**

"Complex analysis" by Donald E. Marshall