

Metropolitan State University, Saint Paul, Minnesota

ICS 372 Object-Oriented Design and Implementation

Information About Exam 1

Date and Time 6:00 PM (or a few minutes later) on February 11, 2021

Duration: 3 hours (maximum)

Points 100

Topics and Structure All material covered in lectures 1 through 4 are game for inclusion in the exam. My objective is to place equal emphasis on material covered in every lecture, but this is often an elusive goal because at times, the same topic could be covered in multiple lectures and a single question usually draws from multiple topics.

The exam is likely to contain three questions requiring you to write Java code and a set of questions that may require short answers. Please follow the directions carefully, so you don't lose credit.

The exam will be completely administered on D2L. Be prepared with topics such as (this is not an exhaustive list)

- 1) Classes, objects, fields
- 2) Constructors
- 3) Methods
- 4) Static fields and methods
- 5) Relationships between classes
- 6) Access specifiers: public, private, protected
- 7) Class hierarchy
- 8) Implementing interfaces
- 9) Type inheritance
- 10) Polymorphism and dynamic binding
- 11) Class and sequence diagrams
- 12) Use cases
- 13) Design patterns (general), Adapter, Singleton, Mediator, Iterator
- 14) Packages
- 15) Serialization
- 16) GUI programming

Ground Rules

1. This is an open book/open notes test. You may use any resources on the internet. The only restriction is that you are not allowed to communicate in any way with anyone: like phone call, online chat, email, posing questions on online forums, etc. So, this is an individual effort.
2. You must have your video on. Mute the audio. If you need to ask me a question, please send a message privately to Zoom chat. I may move you to a waiting room and we can talk briefly.
3. If you have to leave the exam for any reason, please get permission from your instructor. Use the approach in (2) above.

4. Some of the questions ask you to write Java code. These must be coded as **Eclipse Java** projects to the dropbox for Exam 1. Ensure that any Java code you write is syntactically correct and works as specified.
5. Please follow the directions carefully, so you don't lose credit.
6. The exam must be turned in on time. I will announce the deadlines at the start of exam. If you are late, this may mean a loss of time for you to take the exam.
7. If you need disability accommodation, please remind me and also ask Center for Accessibility Resources to arrange for you to take the exam.