

# SER 321 A Session

**SI Session**

**Monday September 25th 2023**

*6:00 - 7:00 pm MST*

# Agenda



Big Picture Review

Review Distributed Structures

Main and Worker

Peer to Peer

Revisit Robustness

# SI Session Expectations

Thanks for coming to the **SER 321** SI session. We have a packed agenda and we are going to try to get through as many of our planned example problems as possible. This session will be recorded and shared with others.

- If after this you want to see additional examples, please visit the drop-in tutoring center.
- We will post the link in the chat now and at the end of the session.
  - [tutoring.asu.edu](https://tutoring.asu.edu)
- Please keep in mind we are recording this session and it will be made available for you to review 24-48 hours after this session concludes.
- Finally, please be respectful to each other during the session.

# Interact with us:

## Zoom Features



### Zoom Chat

- Use the chat feature to interact with the presenter and respond to presenter's questions.
- Annotations are encouraged

# SER 321

## Big Picture Review

Layer	Data Unit	What we mean
Application	Data	
Presentation	Data	
Session	Data	
Transport	Segments	
Network	Packets	
Data Link	Frames	
Physical	Bits	

# SER 321

## Big Picture Review

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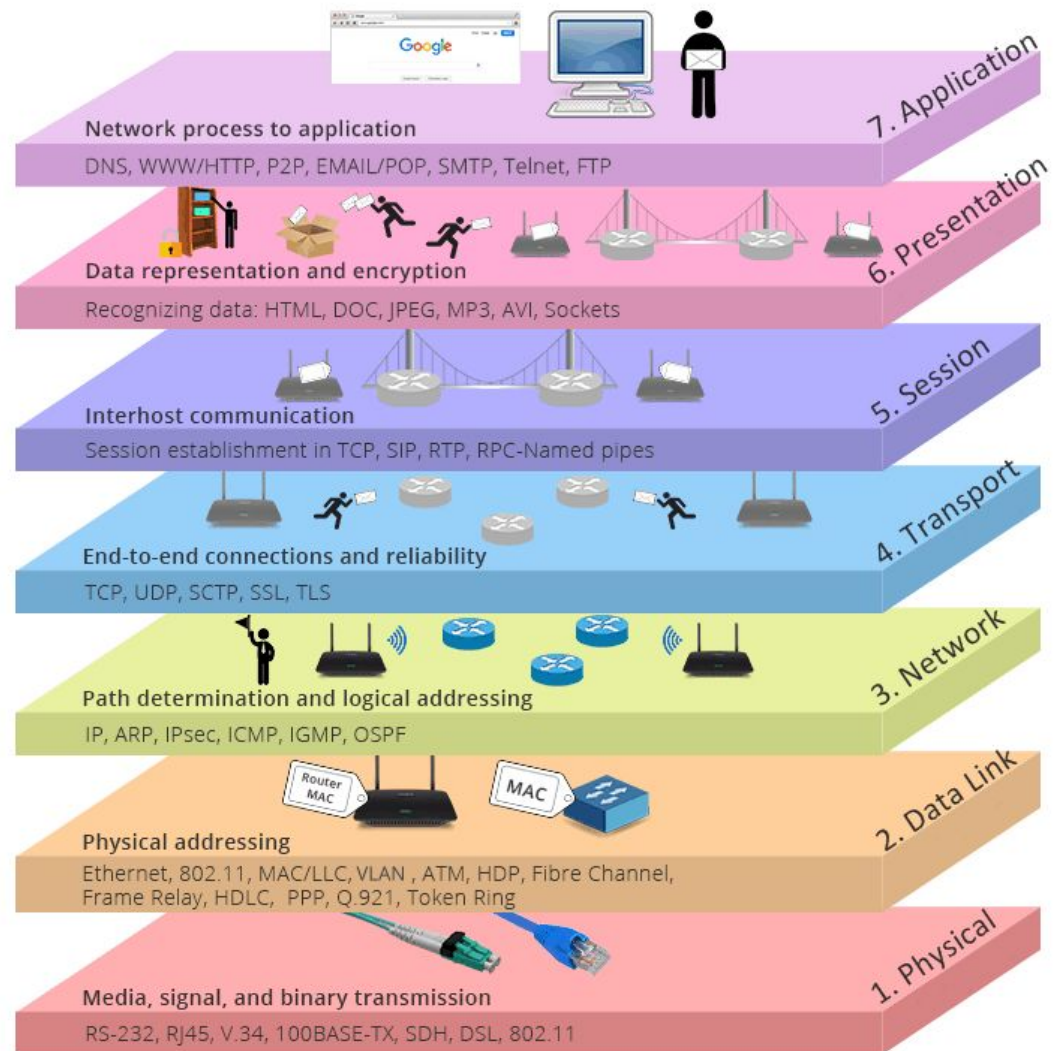
## Big Picture Review

*Check out the recording for the solution!*

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## Big Picture Review

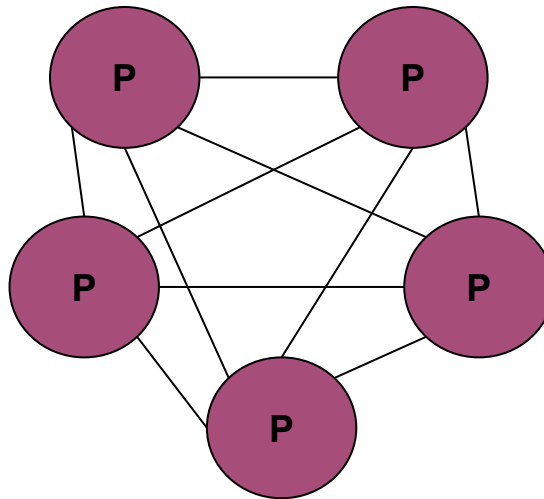
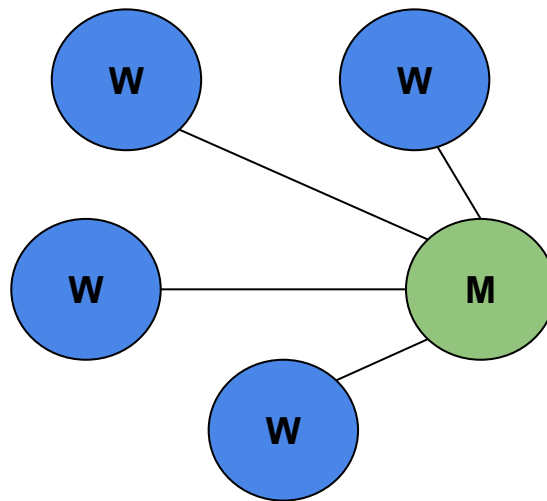




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## Distributed Structures

What are we looking at?

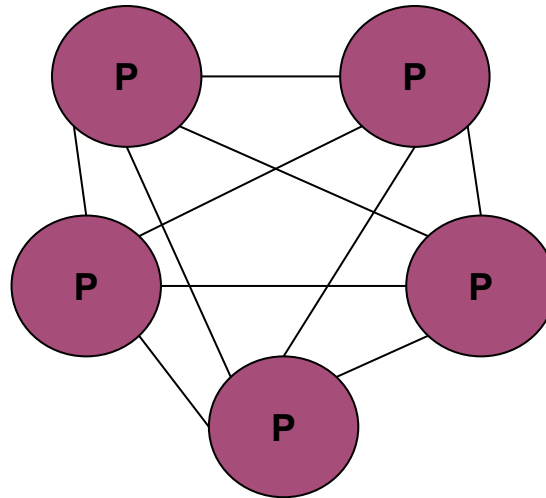
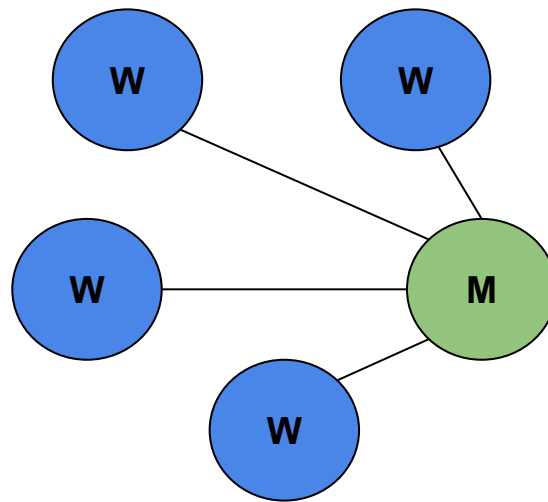


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## Distributed Structures

Can we list some pros of both?

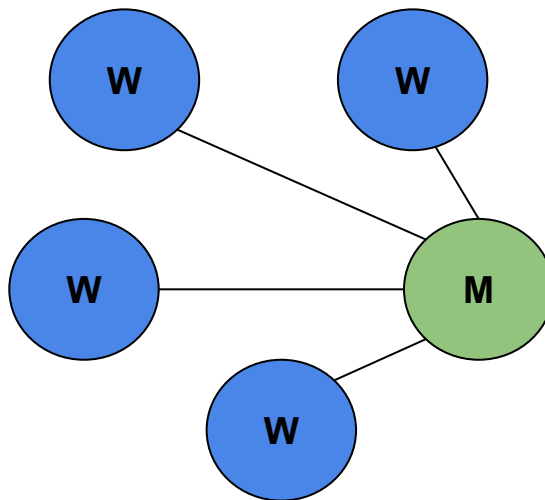


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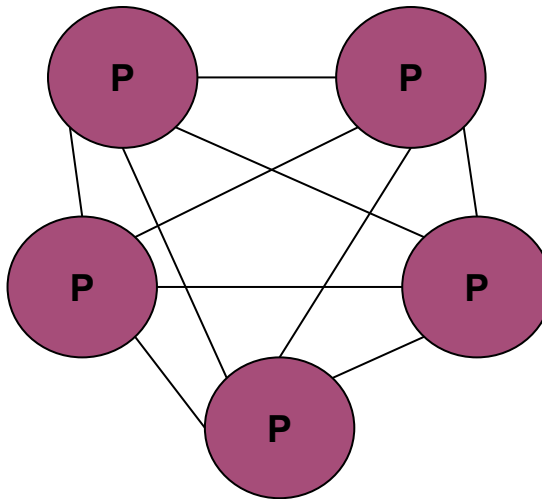
## Distributed Structures

Can we list some pros of both?

- Simple setup
- Logic is isolated
- Communication is linear



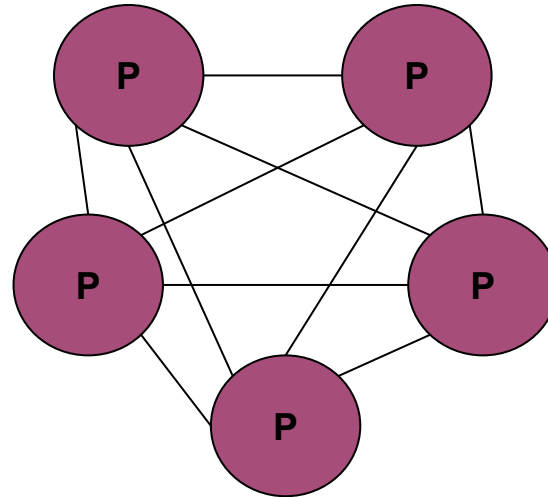
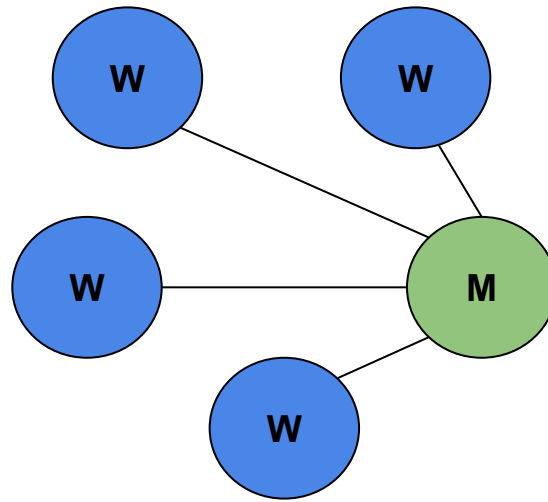
- Peers can join easily
- Peers can (and do) fail without issue
- Peers are all equal



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## Distributed Structures

What about cons?

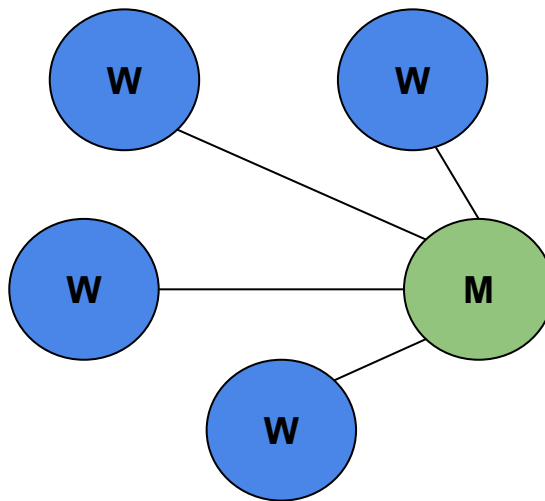


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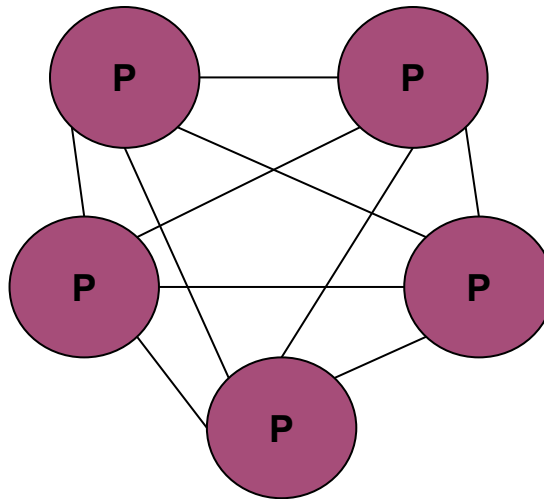
## Distributed Structures

What about cons?

- Some nodes are more important
- Single point of failure



- Client connections are different
- Communication is complicated

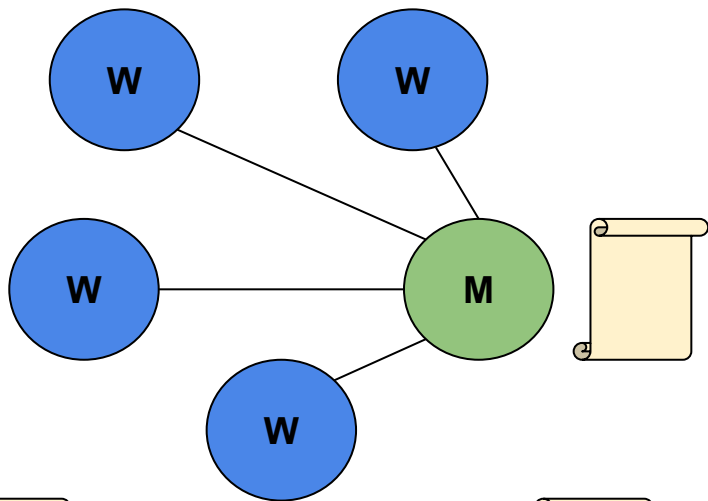


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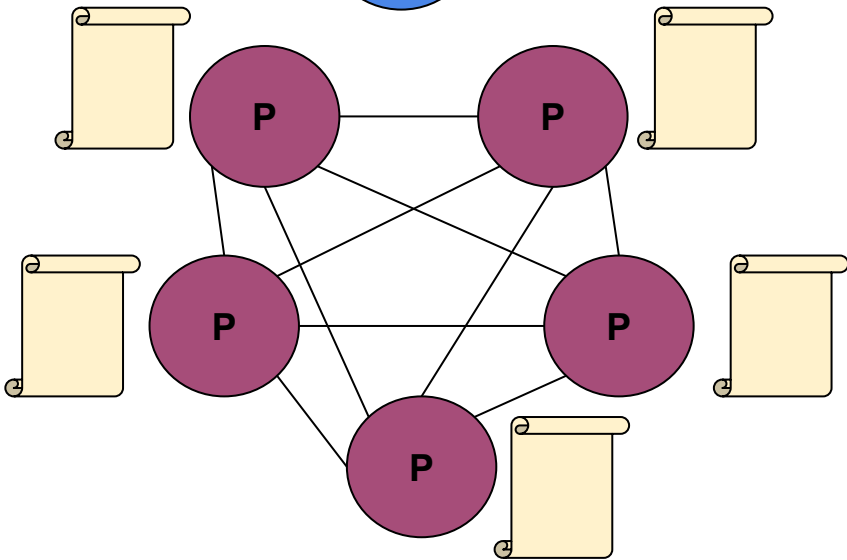
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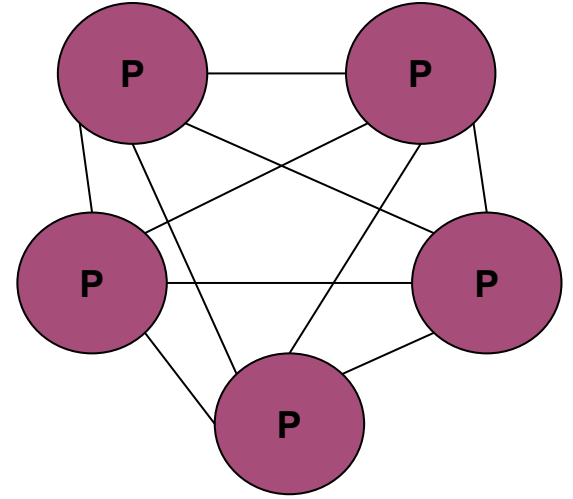
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## Peer to Peer - New Node

How does a new node connect?



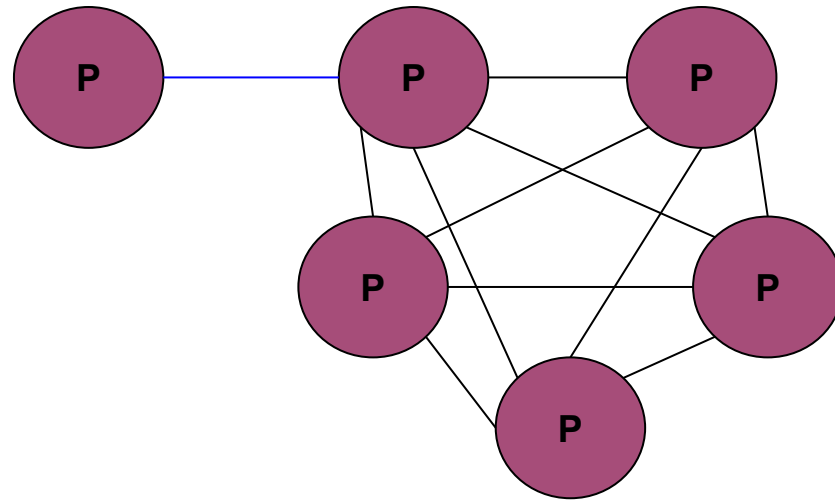
# SER 321

## Peer to Peer - New Node

How does a new node connect?

Connected to one peer...

But now what?





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## Peer to Peer - New Node

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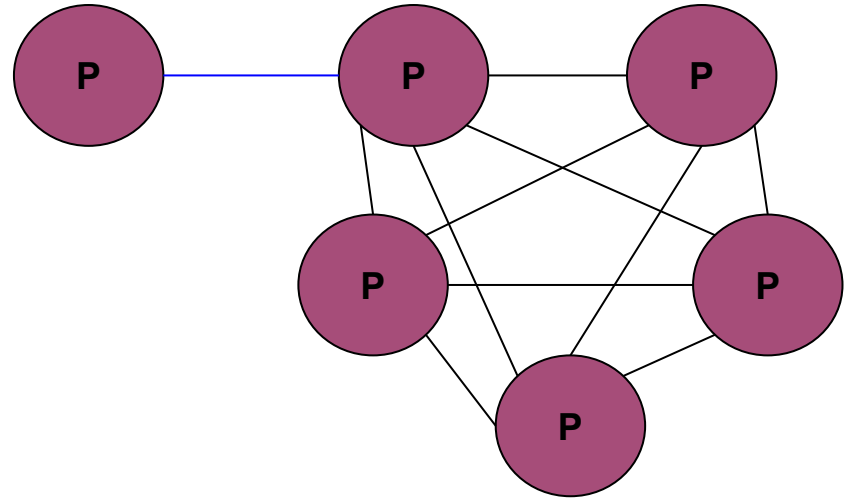
Connected to one peer...

But now what?

That peer sends the new node a list of peers in the network

That peer *a/so* notifies the other peers in the network of the new node

Those peers update their peer list to include the newly added node



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## Error Handling and Robustness

Make sure you include some decent error handling from the **very beginning!**

Basic catch blocks with detailed print statements that you can simplify later

Check your input data fields and types before use

Check if the field/data is null before handling

Doing it first will save you from having to hunt down your problem later!

# Questions?

## Survey:

[https://bit.ly/asn\\_survey](https://bit.ly/asn_survey)



## Upcoming Events

### SI Sessions:

- Wednesday September 27th 2023 at 6:00 pm MST

### Review Sessions:

- Monday October 2nd is the last day available for the review session
- Will post a poll either tonight or tomorrow

# More Questions?

Check out our other resources!

tutoring.asu.edu



## Academic Support

Academic Support Network (ASN) provides a variety of free services in-person and online to help currently enrolled ASU students succeed academically.

### Services



#### Subject Area Tutoring

Need in-person or online help with math, science, business, or engineering courses? Just hop into our Zoom room or drop into a center for small group tutoring. We'll take it from there.

[Need help using Zoom?](#)

[View the tutoring schedule](#)

[View digital resources](#)

Go to Zoom



#### Writing Tutoring

Need help with undergraduate or graduate writing assignments? Schedule an in-person or online appointment, access your appointment link, or wait in our drop-in queue.

[Access your appointment link](#)

[Access the drop-in queue](#)

Schedule Appointment



#### Online Study Hub

Join our online peer communities to connect with your fellow Sun Devils. Engage with our tools to search our bank of resources, videos, and previously asked questions. Or, ask our Tutorbot questions.

Now supporting courses in Math, Science, Business, Engineering, and Writing.

Online Study Hub

1-

Go to Zoom

2-

[Need help using Zoom?](#)

[View the tutoring schedule](#)

[View digital resources](#)



1. Click on 'Go to Zoom' to log onto our Online Tutoring Center.
2. Click on 'View the tutoring schedule' to see when tutors are available for specific courses.

# More Questions?

## Check out our other resources!

[tutoring.asu.edu/online-study-hub](https://tutoring.asu.edu/online-study-hub)

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[University College](#)

## Online Study Hub

Online peer communities for students and tutors, YouTube channels, and Tutorbots.



### What are online peer communities?

Individual courses have an online peer community that allows you to connect with your peers to post and answer questions and to develop study groups.



### How can tutoring center videos help?

Videos can help supplement the learning you're doing in and outside of class and include step-by-step methods for how to understand concepts.



### How does the Tutorbot work?

You can ask the Tutorbot questions about course concepts and the Tutorbot will recommend additional resources and examples to help address your questions.

Select a subject

- Any -

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Select a subject

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**Business**

### ACC 231

Uses of Accounting Info I

 [Peer Community](#)

### ACC 241

Uses of Accounting Info II

 [Peer Community](#)

### CIS 105

Computer Applications and Information Technology

 [Peer Community](#)

Don't forget to check out the Online Study Hub for additional resources!

## Additional Resources

[CourRepo](#)

[Dining Philosophers Interactive](#)

[Raft Interactive](#)