Introductions

Ø Instructor
- Prof. Dola Saha, PhD University of Colorado Boulder
- http://www.albany.edu/faculty/dsaha/
- dsaha@albany.edu

Ø Students
- Upload pictures in blackboard
Information

- **Course Website:**
  - [http://www.albany.edu/faculty/dsaha/teach/2016Fall_CEN416/2016Fall_CEN416.html](http://www.albany.edu/faculty/dsaha/teach/2016Fall_CEN416/2016Fall_CEN416.html)

- **Blackboard:**

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Office Hours

- **Where:** BA 312

- **When:**
  - Tuesday 2:00-3:00PM
  - Thursday 3:00-4:00PM
  - By appointment.
Textbooks

- **Required:**
  - "Computer Networks: A Systems Approach", Larry Peterson and Bruce Davie, Elsevier

- **Reference:**
  - "Computer Networks", Andrew S. Tanenbaum, and David J. Wetherall, Pearson
Assignments & Grading

Assignments

- No late assignments will be accepted.
- All assignments are due by 11:59PM on the due date.
- Re-grading requests will be considered up to 5 business days after posting the grades for the corresponding assignment.

Grading

- Projects - 20%
- Homework - 20%
- Midterm - 25%
- Final Exam - 30%
- Attendance and class participation – 5%
Academic Integrity

- Undergraduate Academic Regulations
  - [http://www.albany.edu/undergraduate_bulletin/regulations.html](http://www.albany.edu/undergraduate_bulletin/regulations.html)

- Academic Dishonesty
  - Plagiarism, Cheating on examinations, unauthorized collaboration, etc.

- Practicing Academic Integrity
  - Citation

- Penalties for Violation
  - Warning, lowering grade, failing grade
Cell Phone in classroom

- Keep your phone in vibrate mode
- Be attentive
- Respect other students
Why this course?
Syllabus

- Internet Architecture
- Application, Transport, Network, MAC and Physical Layers
- Network Security
- Congestion Control
- Resource Allocation
- Modern Applications
Challenges Ahead

- High bandwidth
- Low latency
- High Reliability
- Number of devices
- Diversity in traffic

Source: Cisco Visual Networking Index Mobile, 2015
Rotary Phone

- Used by telephony system
History of the Internet

Circuit Switching vs Packet Switching

Telephone

Physical (copper) connection set up when call is made

Switching office

Internet

Packets queued for subsequent transmission
Circuit Switching vs Packet Switching

Timing of events in (a)circuit switching, (b)packet switching.
Evolving Internet

Proverb

- Tell me and I forget.
- Show me and I remember.
- Involve me and I understand.

Homework is a way to get involved!!!!
Wireshark

- https://www.wireshark.org
- Get Acquainted → Download stable release
Python

- Download Python
  - [https://www.python.org/downloads/](https://www.python.org/downloads/)
  - Check your OS
  - Version – 3.5.2