







Course Requirements

- Two 75-min lectures per week
- 1 hour per week for recitation/review
- Weekly/biweekly homework
- Biweekly project assignment
- Random quizzes
- 1 mid-term
- 1 final

















| Multimedia Content | | Size |
|---|---|--|
| One Page of Text | | 2 KB |
| One 640x480 24-bit color still image | | 900 KB |
| Voice (8 Khz, 8-bit) | | 8 KB /second |
| Audio CD DA (44.1 Khz, 16-bit) | | 176 KB/second |
| Animation (320x640 pixels, 16-bit color, 16 frame/s) | | 6.25 MB/second |
| Video (720x480 pixels, 24-bit color, 30 frame/s) | | 29.7 MB/second |
| | Download to your p using newest 3G Uploading from you Compression is rec | bhone: up to 7.2MB/s ur phone: 500KB/s quired to reduce the data |







- G3,G4: facsimile standard
- JBIG: The next generation facsimile standard
- JPEG: For coding still images or video frames.
- JPEG2000: Improved version of JPEG, offering better quality at lower bit rate, progressive coding, error resilience.
- Lossless JPEG: for medical and archiving applications.











Critical Technologies

Content creation

- Media capturing, editing & processing
- Authoring tools
- Compression

• Distribution

- Telecom (IP, mobile, satellite)
- Storage

• Search

- Web image search
- Information retrieval

• Protection

- Digital watermark
- Digital right management
- Forensics
- Surveillance

• Presentation

- Display
- Human-Computer Interface
- Content-based Browsing and Retrieval
- Graphics and Virtual Reality

- Week 1: Basics
 March 29: Introduction
 March 31: Creating media contents
- Week 2: Creation April 5: Media formats April 7: Media formats
- Week 3: Compression April 12: Media compression (Image) April 14: Media compression (video)
- Week 4: Distribution- Wireline April 19: Media over IP April 21: Media over IP
- Week 5: Distribution- Wireless April 26: Media over the air April 28: No Class

- Week 6: Distribution -Wireless May 3: Mid-term May 5: Case studies
- Week 7: Search May 10: Web media May 12: Media search
- Week 8: Security May 17: Watermarking May 19: DRM
- Week 9: New Trends May 24: New Trends May 26: New Trends
- Week 10: Conclusion May 31: Holiday no class June 2: Final conclusion



