Mastery Test Part 5 Results
Digital Systems

Review Session for
"Electronics and Telecommunications"
A Fairfield University E-Course
Powered by LearnLinc

Module: Digital Systems (in two parts)

- Texts:
  - "Computers," Capron, Benjamin Cummings, 1996, ISBN 0-10053-0662-5
  - "Telecommunications," Blyth, McGraw-Hill, 1990, ISBN 0-02-61001041-2
  - "Understanding Telephone Electronics," Bigelow, Newnes, 1997, ISBN 0-7506-9944
- References:
  - [Electronics Tutorial](#) (Thanks to Alex Pounds)
  - [Electronics Tutorial](#) (Thanks to Mark Sokos)
- Part 9 – Computers
  - 5 on-line sessions plus one lab
- Part 10 – Digital Communications
  - 5 on-line sessions plus one lab
- Mastery Test part 5 follows this Module

Digital Systems: Topics

- Computer Architecture
  - Memory: ROM, RAM, Cache, Error Checking
  - CPU and Program Control   Part 9
  - Secondary Storage: Floppy, Hard Drive, CD / DVD
  - I/O (Human: Video, Keyboard, & Pointer)
- Digital I/O: Serial, Parallel, IDE, USB. FireWire, SCSI

- Serial I/O: RS232
- Modems   Part 10
  - Telephone: Modulation and Data compression
  - Cable and DSL
- Telephony Digital Transmission
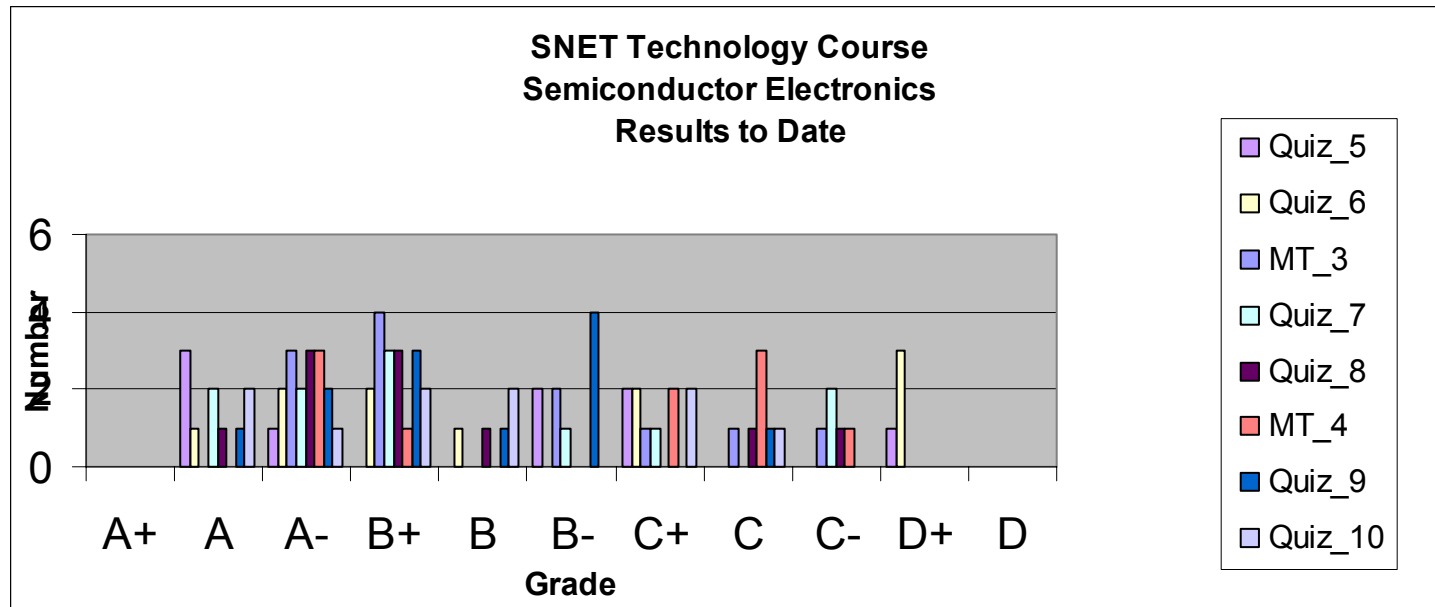- Packet Transmission
- Fiber Optics: SONET

Section 9 Schedule

Session 9a (5/26 – Holiday)	05/21	Introduction: Computer Overview	Capron: Ch 1; Notes
Session 9b	06/02	The CPU (Central Processing Unit)	Capron: Ch 2;
Session 9c	06/04	I/O	Capron: Ch 3;
Session 9d	06/09	Data Storage	Capron: Ch 4;
Session 9e (Lab-06/14, Sat. McAuliffe 113)	06/11	Digital I/O: Serial, Parallel, IDE, SCSI, USB, and Firewire	Bigelow: pp. 2105-21010, 301-305; Notes
Session 9f Quiz 9 due 06/22)	06/16	Review for Quiz 9	
Session 9g (6/18 – no class)	06/23	Quiz 9 Results	

Section 10 Schedule

Session 10a	06/30	RS 232	Bigelow: 285-290; Blythe: 162-170
Session 10b	07/02	Telephone Modems	Bigelow: 290-307; Blythe: 170-176
Session 10c No class 7/14, 7/16	07/07	Modems 2: DSL, Cable, Fax & 56K	Bigelow: 307-321; Notes
Session 10d	07/09	T-Carrier	Bigelow: 198-210
Session 10e	07/21	Packets & SONET	Bigelow: 308-309; Notes
Session 10f (Quiz 10 due 07/27) (Lab - 07/26, Sat.)	07/23	Review for Quiz 10	
Session 10g	07/28	Quiz 10 Results	
Session 10h No Class 8/4, 8/6, 8/11	07/30	MT 5 Q&A	
Session 10i	08/13	MT 5 Q&A 2	If I'm back in time from Chicago
MT5 (Sat, Cheshire)	08/16	MT 5	
MT5 Results	**08/18**	**MT 5 Results**	

Quiz Results to Date

- The class had a B average on Quizzes 9 & 10 – Nice Job.
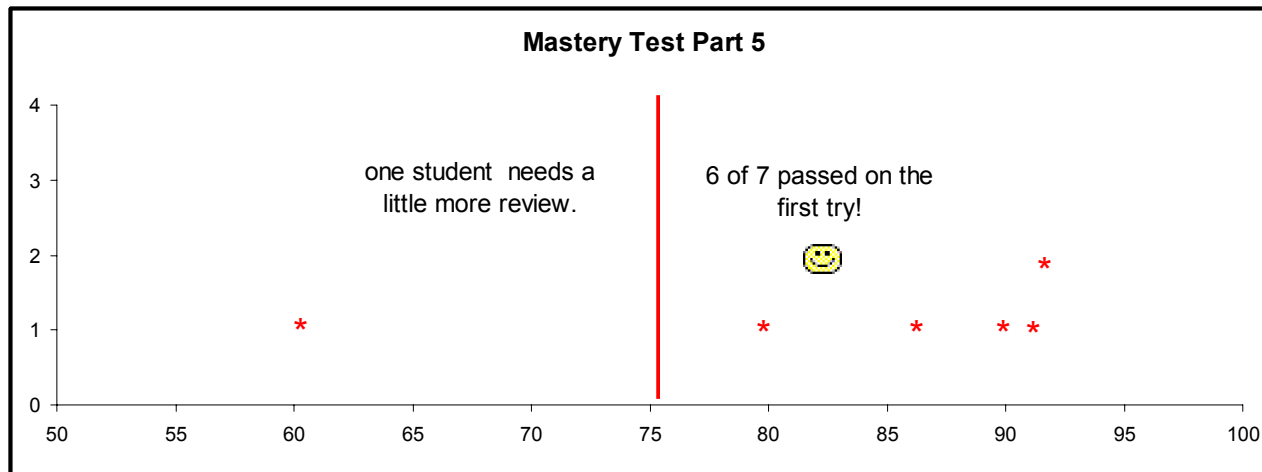- Two of you have not yet turned in quiz 10.

Mastery Test: Part 5

- Thursday, 14 August 2003 – Fairfield: 1 student (Power Outage – 3 others couldn't make it)

- Saturday, 16 August 2003 – Cheshire: 6 students

- Thursday, 21 August 2003 – Fairfield: Makeup Date (Stevina, Charlene, Marsha, Michael, & Leslie)

- 7 of 12 students have taken MT5 to date

- 50 multiple choice questions – 2 points each

MT5 Results

- Here is the distribution of MT5 grades for "Digital Electronics"
- 6 of the 7 students taking the class passed with a 70 or better; Great job!

Mastery Test Part 5

one student needs a little more review.

6 of 7 passed on the first try!

Mastery Test Part 5

- Let's go to the exam itself via AppShare and discuss the answers

- This part of the session will not be available for recorded review

Section 11:
Broadcast Systems

- Frequency Division Multiplexing
- AM
  - Modulation
  - Demodulation (The Envelope Detector)
- FM
  - Modulation
  - Demodulation (The Phase-Locked-Loop)
- Superhetrodyne receivers
- Television
- Sampling

Section 11 Preliminary Schedule

Session 11a	08/25	Time and Frequency Multiplexing	Notes and Web Sites Bigelow: 167-206
Session 11b	08/27	AM Radio	Notes and Web Sites
Session 11c (Labor Day 09/01)	09/03	FM Radio	Notes and Web Sites
Session 11d	09/08	Transmitters & Receivers	Notes and Web Sites
Session 11e (Lab - 09/13, Sat.)	09/10	Television	Notes and Web Sites
Session 11f (Quiz 11 by 09/21)	09/15	Review for Quiz 11	
Session 11g	09/22	Quiz 11 Results	

Section 12:

Transmission Systems and Data Networks

- Transmission Lines
  - Twisted pair
  - Coaxial Cable
  - Optical Fiber
- Microwave Systems
- Satellite Links
- Telephone Systems
- Local Area Networks
- Cellular Phone Systems