

NAME: _____

1. I affirm that I acted with integrity during this examination. In particular, I neither gave, received, nor solicited unauthorized assistance. I will report any violations by others within 24 hours.
2. I DO / DO NOT (circle one) give my permission to post my final exam and course grades on the course webpage, using some perfect hash function of my student ID number as identifier.

Signature: _____

ID Number: _____

CSC 720
Dr. Bahler
Spring 2001

FINAL EXAMINATION

Out: 1420 H 3 MAY

Due: 1600 T 15 MAY

Project Report Due: 1700 F 4 MAY

Guidelines and Ground Rules

1. This exam is not designed to require any sources beyond the course readings, but you MAY use any other written material if you wish – open book, open notes, open library, open web. GIVE PROPER SPECIFIC CITATION TO THE SOURCE(S) YOU USE (INCLUDING the course readings and any Internet/WWW sources).
2. You MAY NOT consult with any other person about your answers. YOU ARE TO DO YOUR OWN WORK.
3. Spend as much time as you wish preparing your answers, but do not spend more than THREE HOURS actually writing the exam. Text-processed answers are strongly encouraged but not strictly required; just make sure everything is legible. If you want to use figures without spending time formatting them, it's fine to draw them freehand and refer to them by number in the text.
4. You have roughly 12 days to complete the test. Turn in THIS PAGE signed above (keep the paper if you want) to the CSC Department office in 226 Withers at or before 4:00 PM, Tuesday, May 15, 2001. The department receptionist will be keeping an envelope marked "CSC 720" for this purpose. You may turn in your actual response to the Final Exam in one of three ways:

HARDCOPY: Together with the signature page to the department office.

EMAIL: Electronically as a **PDF** or **PostScript** or **plaintext ASCII** file emailed to bahler@ncsu.edu.

SUBMIT: Electronically as a **PDF** or **PostScript** or **plaintext ASCII** file via the Wolfware **submit** utility, reachable from the course homepage. Maximum **submit** file size is 8 MB. Caution: This method may not work. I have never actually tested submitting PDF or PostScript files via the **submit** utility.

You may also turn in your Final Project Report the same way.

5. Once you have turned in your work, send email to bahler@ncsu.edu indicating this, so I know where to look for it.
6. DO NOT put your exam or project report in Dr. Bahler's Withers mailbox, and DO NOT just slip your exam or project report under his office door.
7. See the other side for more information.

The Questions

Read and critically evaluate the (mostly anonymized) chapter “Which Technique is Best?” A copy has been provided; this is a candidate reading we didn’t have time to discuss.

Be sure to address **at least** the following issues. Refer to specific course readings (and other readings if you wish) to support your points, and remember to provide citations.

1. Are the guidelines this paper identifies really evident in the readings for this course? How do they manifest themselves? Which if any of our readings seem to be exceptions? How critical a failing is this?
2. This paper is now about ten years old. Many, but not all, of our readings are more recent. From what you know from course readings or elsewhere, what progress has there been in the 1990s on the issues identified by the paper?
3. This paper addresses mainly supervised classification, but, as we have seen, the field of machine learning is much broader. What aspects of learning are not really covered by this paper? Are the points of this paper applicable to these other methods as well? If so, which points and which methods?
4. What would you say are some remaining major problems and issues in machine learning generally?