

MATH 724, Monomial Ideals, 3 credits, Fall 2008

MWF 11:00-11:50 AM, Dolve Hall 204

INSTRUCTOR: Sean Sather-Wagstaff

OFFICE: Minard Hall 310D

E-MAIL: Sean.Sather-Wagstaff@ndsus.edu

PHONE: 231-8105

OFFICE HOURS: MWF 9:00–9:50, and by appointment

PREREQUISITE: MATH 621

USEFUL WEBPAGES:

Course webpage: <http://math.ndsu.nodak.edu/faculty/ssatherw/fa08/724/>

Instructor webpage: <http://math.ndsu.nodak.edu/faculty/ssatherw/>

Anonymous evaluation form: <http://math.ndsu.nodak.edu/faculty/ssatherw/ssw-eval.html>

Math department webpage: <http://math.ndsu.nodak.edu/>

NDSU webpage: <http://www.ndsu.edu>

NDSU blackboard site: <https://bb.ndsu.nodak.edu/>

NDSU webpage on academic responsibility/conduct: <http://www.ndsu.nodak.edu/policy/335.htm>

TEXT: Course notes will be available on the course website.

COURSE DESCRIPTION: Graduate-level treatment of several aspects of the theory of monomial ideals, focusing on the use of combinatorial data to determine primary decompositions of monomial ideals. This course is primarily based on the article “Parametric decomposition of monomial ideals” by W. Heinzer, J. L. Ratliff, Jr. and K. Shah, *Houston Journal of Mathematics*, vol. 21, no. 1, 1995.

COURSE GRADES: Student grades are based on weekly homework assignments, attendance and participation. Weights are summarized in the following table along with grade ranges.

Homework	90%	A	85–100%
Attendance and Participation	10%	B	70–84.9%
		C	55–69.9%
		D	40–54.9%
		F	0–39.9%

I will update your grades throughout the semester at the NDSU Blackboard site.

HOMEWORK: I will assign homework on a weekly basis. Exercises will be assigned in class on Fridays and solutions will be due at the beginning of class on the following Friday. Assignments will also be listed on the course webpage. Each section of homework will be worth the same amount. Late homework will only be accepted under extreme circumstances. If you have a conflict with any of the homework due dates, make alternative arrangements with me beforehand.

Students are encouraged to work on assignments in small groups, but each member of the class is required to turn in a neatly written, organized set of solutions. Students will receive no credit for solutions with no work or justification. I reserve the right to deduct points for messy papers. You may even consider using \LaTeX to typeset your solutions.

ATTENDANCE: While attendance is not explicitly required, it is worth 10% of your grade. I will take attendance each class period. Officially excused absences will not be counted against you, but you must document such situations with me personally.

COURSE NOTES: I will be typing course notes during the semester. I will periodically (at least weekly) update the notes on the course webpage. I will give extra credit to people who find typos in the notes; credit will be given to the first person who tells me about a given typo.

TENTATIVE SCHEDULE: I reserve the right to make reasonable changes to the schedule.

Labor Day holiday	Mon 01 Sep
Last day for No Record Drop of classes	Wed 03 Sep, 11:59 PM
International Talk Like A Pirate Day	Wed 19 Sep
Veteran's Day holiday	Tue 11 Nov
Thanksgiving holiday	Thu 27 Nov to Fri 28 Nov
Last day to Drop Classes (W)	Mon 01 Dec, 11:59 PM
Classes end	Fri 12 Dec
Final Exam (possible lecture)	Fri 19 Dec, 10:30 PM –12:30 PM

ANNOUNCEMENTS: Periodically, I will send course announcements to your ndsu.edu email account. It is your responsibility to check this email account regularly.

INSTRUCTOR FEEDBACK: At the course webpage, there will be a link to an anonymous evaluation form where students can submit comments or suggestions for me at any time during the semester.

ADA STATEMENT The Americans with Disabilities Act requires that reasonable accommodations be provided for students with physical, cognitive, systemic, learning and psychiatric disabilities in order to ensure their equal access to course content. If you have a documented disability and require accommodations, please let your instructor know as soon as possible. For more information, please contact Disability Services at 231-7671 or go to <http://www.ndsu.edu/counseling/disability.shtml>.

ACADEMIC HONESTY All work in this course must be completed in a manner consistent with NDSU University Senate Policy, Section 335: Code of Academic Responsibility and Conduct. Violations of this policy in this course will result in a 0 for the quiz or exam on which academic misconduct occurred. You can read the Senate Policy at <http://www.ndsu.nodak.edu/policy/335.htm>.