

MATH 4341 – Winter 2018

Combinatorial Design Theory

Instructor

- Name: Dr. David Pike
- Office: Henrietta Harvey Building – Room 2024
- Phone: 864-8096
- Email: dapike@mun.ca
- Office Hours: to be determined, or by appointment

Course Info

- Location: Henrietta Harvey Building – Room 3015
- Class Times: 10:30–11:45 on Tuesday and Thursday
- Prerequisites: MATH 3320 (Abstract Algebra) or MATH 3340 (Introductory Combinatorics).
- Textbook: *Combinatorial Designs – Constructions and Analysis*, by D.R. Stinson. Published by Springer. ISBN 0-387-95487-2.
- Webpage: somewhere at www.math.mun.ca/~dapike

Course Outline

The intent is to cover the following chapters or portions thereof.

- Chapter 1 Introduction to BIBDs
- Chapter 2 Symmetric BIBDs
- Chapter 3 Difference Sets
- Chapter 5 Resolvable BIBDs
- Chapter 6 Latin Squares
- Chapter 7 PBDs
- Chapter 10 Orthogonal Arrays and Codes

Method of Evaluation and Related Policies

- Assignments will be due at the time and date announced when distributed. Assignments should be submitted to the designated assignment box in the corridor near the Math & Stats General Office, located in the Henrietta Harvey Building. Late assignments will not be accepted and will receive a grade of zero.
- Plagiarism, cheating, and academic dishonesty will not be tolerated. The minimum penalty for any form of cheating on an assignment, test, etc. will be a grade of zero for the corresponding assignment, test, etc.
- It shouldn't need to be said, but inevitably somebody puts me through this test: on homework, quizzes, tests, etc, I expect you to show your work. Simply stating the ultimate answer (even if it is correct) will rarely get you full credit; the work behind your answer is usually given more credit than the answer itself. In short, your job is to *show* that you know *how* to do the exercises.

Moreover, your work should reflect clear content as well as coherent reasoning and organised structure. Part of what this means is that your work should be clear to follow and should show a logical progression of thought. Arguments that wander around the point, or which include extraneous and/or irrelevant side details, are inferior to arguments that do not go astray at times. Likewise, if you have to guide me through your work in order to point out your thought process (again, even if you got the correct answer in the end), then you should not expect to get full credit.

- Be aware that not all learning takes place in the classroom. Expect to devote personal time to ensure that you fully comprehend and understand the material. This will likely entail reading from the textbook, consulting with additional resources, engaging in interactive discussions, as well as doing exercises beyond those which are assigned.

- Quizzes and/or tests will be regularly administered. Crib sheets will not be allowed.

Expect to have photo-id checked during each test and exam.

Accommodation for missed quizzes or tests will be given only for legitimate absences, and only if the request for accommodation is brought to my attention no later than the day that you next attend class; otherwise, a score of zero will be assigned for any missed quizzes and/or tests. All such requests must be documented.

In the event that a test is cancelled due to inclement weather, the test will be automatically rescheduled for the next lecture time.

- The final exam will be comprehensive.
- Final course grades will be based upon the following scheme

Homework:	30
Quizzes and/or Tests:	30
Final Exam:	40
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	100

Notwithstanding the above formula, a combined score of at least 30 out of the 70 possible points must be achieved on the quizzes/tests and the final exam in order to pass the course.

- Requests for “extra-credit” projects will be denied. Put simply, your grade will be based upon the required course-work as indicated in this syllabus.

If You’re Thinking of Majoring in Math...

... but aren’t sure what career options would be available with a Math degree, then here are some resources that you can look at:

- “101 Careers in Mathematics” by Andrew Sterrett. Call Number: QA 10.5.A15 1996
- “She Does Math!” by Marla Parker. Call Number: QA 27.5.S53 1995
- www.ams.org/careers/
- www.cms.math.ca/Education/MathAtWork

If you want to talk to somebody for academic advice concerning undergraduate programmes of study in Mathematics, you can see Tara Stuckless in the Henrietta Harvey Building, Room 3004. Also, the Department of Mathematics and Statistics has information about its courses and programmes of study, located at: www.mun.ca/math/undergraduate/ugrad-msprograms