

HOLYOKE COMMUNITY COLLEGE – Fall 2008  
 Syllabus, MTH 155, Topics in Mathematics  
 Tues/Thur Section 04: 8:00-9:15 a.m. Section 08: 12:30-1:45 p.m.



Prof: Irene Starr  
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**Office hours**  
 Tu/Th 9:15-9:30/12-12:20  
 & by appointment & email  
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**Subject to change**

<u>Catalog Description</u>	“An exploratory course in mathematics for the Liberal Arts student. Topics may include mathematical logic, algebra of sets, Boolean algebra, permutations and combinations, probability, statistics, transfinite and finite numbers, bases other than 10, group theory, history of mathematics, puzzles and paradoxes, the mathematics of finance, or others chosen by the instructor. 3 class hours, 3 credits.”
<u>Purpose</u>	To explore, think, enjoy, and do some math. Make observations, discover relationships, develop strategies, solve problems ... Topics covered will include mathematical ways of thinking, number sequences, methods of counting, probability (in Chapters 1, 2, 7, 8 of the text) as well as one or two other topics.
<u>Text And Materials</u>	<b>Mathematics A Human Endeavor</b> , 3rd ed, Harold R. Jacobs (publisher: Freeman) Notebook. Calculator – <u>optional</u> (the library may have a few to loan)
<u>Teaching Methods</u>	Lectures, homework, tests, student presentations, discussions, class work, groups, and/or projects may be included. Handouts during the semester will list assignments and reading. <b>**If you need any academic accommodation, please notify me in the <u>first week of the term</u>**.</b>
<u>Help</u>	<ul style="list-style-type: none"> <li>• <u>See me</u> during office hours, before or after class, or by appointment - or send me email (I check it most evenings). <b>IF you need help, it is important to contact me <u>as soon as possible</u>.</b></li> <li>• <u>Math Center</u>, DON240. Free walk-in and one-on-one tutoring. Help with study procedures; problem-solving strategies; ways to overcome math anxiety; handouts, videos, + more.</li> <li>• <u>Classmates</u> and/or informal study sessions you arrange with them.</li> </ul>
<u>Expectations</u>	You will learn math best by DOING it. Thus participation, reading the text, doing the homework, asking questions, studying for tests are important learning experiences. The time commitment for a 3 credit course averages 3 hours per week in class <b>plus</b> about 5-7 hours per week outside of class. Other obligations may make this difficult, but note that learning is a time-consuming activity and that shortcuts will affect the quality of education you give yourself.
<u>Attendance</u>	HCC policy is “all students are required <u>to report to all classes on time.</u> ” This is important for success in a math class. You are responsible for learning what you miss when absent. <b>In cases of <u>necessary extended absence</u>, keeping in touch is extremely important as I will go the extra mile to help you complete the course. However, <u>if you miss more than 3 classes</u>, <b>WITHOUT CONTACTING ME</b>, I will file an Academic Withdrawal form.</b>  Please let me know if you need to drop the course – explanations are unnecessary.  Make sure you know when and where the <u>final</u> exam will be given. Anyone missing the final may take a make-up exam <u>only</u> for a documented illness or emergency. <i>It is your responsibility to notify me and make arrangements with me ASAP – at latest before the last day of finals.</i>

**over**

<u>Please</u>	Put your name, the date, the assigned <u>pages</u> , and <u>problem numbers</u> on the first page of assignments/exams, with your initials on other pages. Write legibly. Keep erasures and cross outs clear. Use standard size paper (8 1/2 by 11 inches). Throw away messy fringes from spiral binders. Staple or clip pages together at the upper left-hand corner.
<u>Homework, Tests, And Evaluation</u>	<ul style="list-style-type: none"> <li>The daily <b>homework</b> (HW) assignment includes <b>reading</b> the lesson to be covered during the next class. The topic will make more sense if you have some familiarity and you will be able to ask questions. The HW will usually be discussed in class. Note that the answers to selected exercises are in the back of the text.</li> </ul> <p>HW/practice is essential, just as in sports or music. It helps to increase your understanding and confidence, to identify what you don't understand, and to provide you with examples when you prepare for an exam. <u>Short quizzes based on HW may be given occasionally. HW will be collected and may be graded.</u> Some exercises may be done in groups during class and count towards participation. It's always important to show your reasoning.</p> <ul style="list-style-type: none"> <li>25% of the term grade is a combination of quizzes, HW, participation in class, &amp; attendance.</li> <li><b>3 Hour exams</b> are worth 15% each. They will be announced in advance (about one exam per month). <u>The first exam will be near the end of September.</u> Missed exams may be made up for medical or emergency reasons only; a written excuse may be required. Make-up exams must be taken before I can return or discuss an exam in class.</li> <li>The <b>final exam</b> is worth 30%, requires 2 hours time, covers the semester's work, and is during the last week of the term. The exact time/place is set by the registrar's office.</li> <li>If you notice a mistake or oversight in the grading, please let me know immediately.</li> <li>Information on grades, incompletes, academic withdrawal, etc. is in the <u>college catalog</u>.</li> </ul>
<u>Conduct</u>	<p>Conduct that is disrespectful or distracting (examples: harassment, chatting, arriving or leaving loudly during class) will result in a warning or dismissal, temporarily or permanently.</p> <p>Cheating or plagiarism will result in a grade of 0 for that work. It may lead to dismissal from the course. For more information refer to the academic dishonesty policy in the college catalog.</p>

### Assignments for September

Date	In-Class	<u>Today's HW assignment, due next class.</u>	
<u>Sept</u> 2	1.1 Billiard Ball Pattern Discuss syllabus.	Read chapter 1. lesson 1 (1.1), do set 1 and 2 exercises ( p 6-11). Read 1.2	Due 9-4
4	1.2 More Patterns.	1.2, set 1 and 2 exercises (p 14-17). Read 1.3.	
9	Quiz on HW. 1.3 Inductive reasoning = IR	Set 1 exercises in 1.3 ( p20-21) Read 1.4 + 1.5	
11	1.4 Limitations of IR 1.5 Deductive reasoning = DR	Set 1 exercises (p 27-28) Set 2, #1-4 (p 28) Read 1.6.	
16	Quiz on HW. 1.6 Number tricks and DR	TBA	
18	Review Chapter 1	Study for exam	
23	Exam 1	See next assignment sheet	