The

UMACtuary

September 2012

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Professor and Director

Warren Centre for Actuarial Studies and Research

Asper School of Business, University of Manitoba

Room 640, Drake Centre, 181 Freedman Crescent

Greetings from the Warren Centre,

Welcome to the 2012/2013 academic year and the 100th year of the U of M Actuarial Program!

With no exception, we have a great group of UMAC Executives to serve the UMAC members. I encourage you to join the UMAC and participate in the activities organized by the UMAC throughout the year. Be reminded not to miss out on important events such as Centennial Fish Dinner in October and ASNA annual meeting in January 2013. I will go over information about scholarship application and CIA examination exemption at your first class of ACT 2120 and ACT 3130. More of the information is available on the Warren Centre's webpage. Feel free to drop by my office or send me emails if you have any questions. I wish you a year of great progress and fun! - Jeffrey Pai

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UMAC Office Hours:

Drake Centre, Rm 123

Monday – Thursday:

1:00 pm – 4:00 pm

Welcome to the 1st issue of the 2012-2013 UMACtuary newsletter!

Hello, welcome to the 2012/2013 School year and welcome to the University of Manitoba Actuary Club (UMAC). The purpose of this newsletter is to help keep you updated and involved in the many school and social events throughout the year. In addition, we will be publishing articles written by students, so if you have a story and want to be heard, this is a chance for you to speak up! You can always email or call me anytime! Other than that, work hard, play hard and have a great year!

- Michael Etkin, Newsletter Editor

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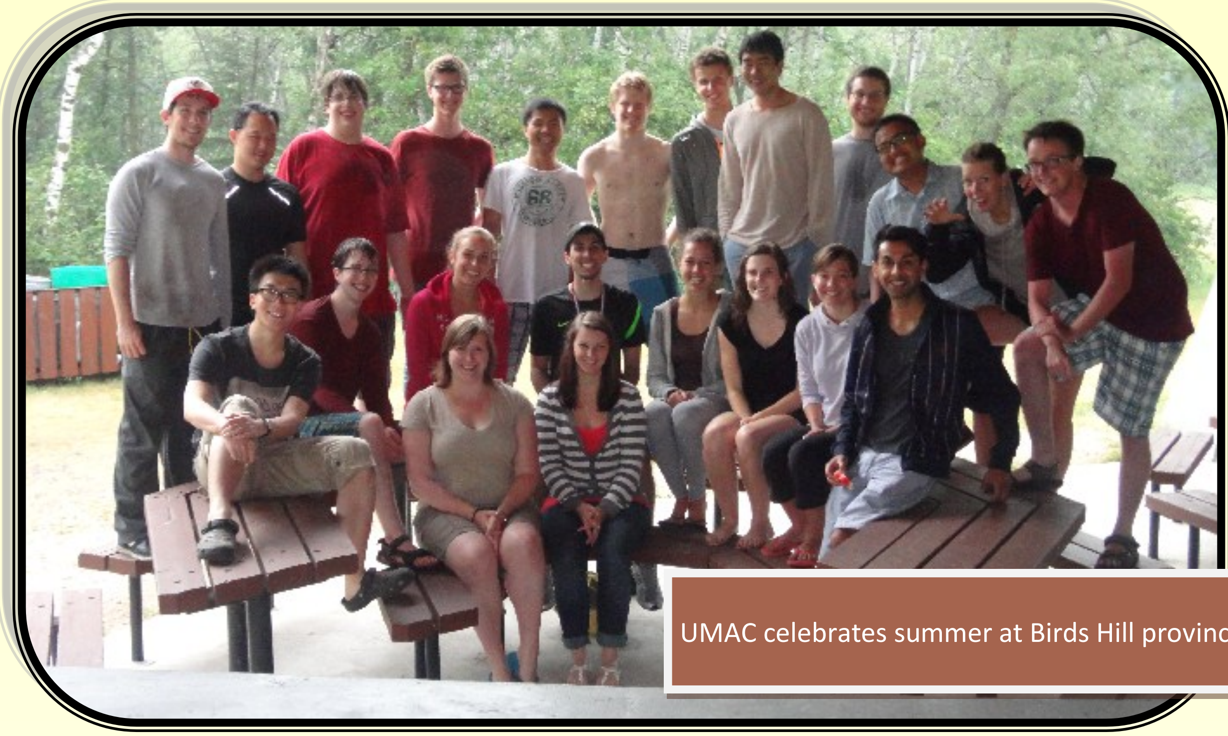
THE UNIVERSITY OF MANITOBA ACTUARIAL CLUB



UMAC celebrates summer at Birds Hill provincial park

September Info Sessions

Company	Manulife	Great West Life	Towers Watson	Sun Life	Signa	Great West Life	Mercer	Aon	Allianz
Day	Monday	Tuesday	Wednesday	Thursday	Monday	Tuesday	Tuesday	Wednesday	Thursday
Date	17th	18th	19th	20th	24th	25th	25th	26th	27th
Time	5:30 pm	6:00 pm	6:00 pm	6:00 om	5:00 pm	5:30 pm	7:00 pm	5:00 pm	5:30 pm
Location	4 Points Sheraton, (Pembina)	Great West Life Cafeteria	Canad Inns (Pembina)	4 Points Sheraton (Pembina)	107 Drake, U of M	Marshall Mcluhan Hall (U of M)	Hy's Steakhouse	107 Drake, U of M	108 Drake, U of M

What Class is this?

ACT 2020: Economic and Financial Applications
ACT 2120: Interest Theory
ACT 2210: Introduction to Risk Management
ACT 3130: Actuarial Models 1
ACT 3230: Actuarial Models 2
ACT 3340: Derivative Markets
ACT 4060: Actuarial Aspects of Investment Practice
ACT 4140: Actuarial Modeling Methods 1
ACT 4340: Actuarial Modeling Methods 3
IDM 4540: Time Series and Regression Analysis for Management

A message from our UMAC Co-Presidents

On behalf of the UMAC executive, welcome to the University of Manitoba Actuarial Club (UMAC)!

As the 2012-2013 Co-Presidents, we are very excited to be leading the executive committee in what will be a great year for University of Manitoba actuarial students. This year, the Warren Centre for Actuarial Studies and Research celebrates its first 100 years of excellence in actuarial science academia. Many UMAC events this year will be in celebration of this achievement. One of which will be the hosting of the Actuarial Students' National Association conference in Winnipeg this coming January.

Speaking of events, UMAC offers a number of services and events for you, the members! Services include a textbook/manual exchange program, study sessions, a mentorship program and of course, this newsletter. These services allow students to pass down and acquire study manuals, to learn from and interact with older students, who can share past experiences and advice with students who are new to the program, and stay up to date with UMAC events and actuarial issues.

Events include a combination of academic and social activities. The 'What is an Actuary?' event gives students a first-hand perspective from industry professionals, and the speed interview event preps student for their actuarial interviews. We also will be hosting the 51st annual Fish Dinner on October 11th, 2012, which is a great opportunity for students to network with each other and industry professionals while enjoying dinner and a keynote address.

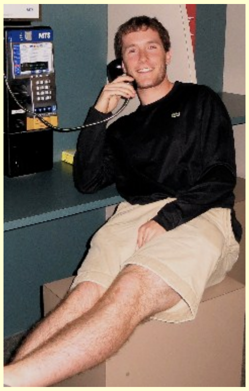
Stay tuned for more information about these events as well as fun social events that come up throughout the year! We hope to see you out at these events where we can get to know you and share with you the benefits of joining UMAC! All the best in the school year!

- **Keri and Aaron**

...But Keri and Aaron aren't the only people helping to keep UMAC alive and well this year. Let's meet the team!

Left to Right: Paul, Julia, Aaron, David, Michael, Keri, Twyla, Ying

Aaron Yanofsky Co-President



I am very excited to be UMAC Co-President for the 2012-2013 academic school year. Being the 100th year anniversary of the Warren Centre for Actuarial Math and Research, there are some great events lined up this year to celebrate our history. I hope everyone enjoyed the 'What is an Actuary' presentation and the mentorship kick-off BBQ. Feel free to stop by our office in Drake 123 from 1-4 pm Monday - Thursday throughout this month and say hi! If you cant make it by our office hours, please do not hesitate to contact me at aaronyanofsky@hotmail.com or contact our executive at umac-exec@lists.umanitoba.ca.

Keri Guenther Co-President

Hey everyone! For those of you who are new to the actuarial program and to those who I haven't gotten the chance to get to know, my name is Keri Guenther and I am one of UMAC's 2012-2013 Co-Presidents. To the new students, you've picked a great year to join the actuarial program seeing as this year marks the 100th year of actuarial excellence at the University of Manitoba! We have a lot of great events planned for the year, including hosting ASNA, and I hope to see all of our members taking advantage of the hard work your UMAC executive has put in to making these events happen. Feel free to stop me in the hallways or send an email my way (keriguenther@mymts.net)if you ever have any questions regarding the actuarial program, how to get involved in UMAC, or just the actuarial career in general.

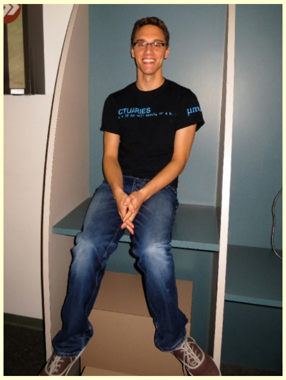
Twyla Nay Treasurer

My name is Twyla Nay and I am happy to be your UMAC Treasurer for this year. I am a 4th year student in the Science program and will graduate in May 2013 (fingers crossed!). I have passed three exams and plan to write more soon, so if you have any questions about exams or classes feel free to stop me. I'm always willing to chat. In my free time I love to watch movies, two-step, and cheer on the Jets! As treasurer, I will be dealing with the money; I plan to make this coming year worth your fees with lots of events and an awesome fish dinner. Let's make this year one to remember!

Ying Chen Secretary

My name is Ying Chen and I am UMAC's secretary this year. This is also the start of my fourth and final year in the program; I will be graduating with a B.Sc. degree in Actuarial Mathematics and Statistics. As a secretary, I will not sit in front of the secretary desk (let's pretend like there was one) and do "secret" things! I will try to update our social media as frequently as possible. I will also try to take care of the photographer job to make every one of you look like a movie, well, "little" star!

Paul Avery ASNA Representative



My name is Paul Avery and I am your ASNA Representative for the coming year. I know what you are thinking: What is ASNA? What do those letters mean? ASNA stands for Actuarial Students' National Association. It is a convention that takes place each year in January and has many great opportunities to offer every student! Employers and students from all over Canada meet at this event to network, conduct information sessions and seminars, carry out job interviews, and most importantly HAVE FUN! Since the convention is being held in Winnipeg this year, I expect each and every one of you to attend this amazing event! I hope that you have an amazing year

Julia Gundmundson Promotions Coordinator

My name is Julia Gudmundson and I'm going to be your Promotions Coordinator for the upcoming school year. I'm going to be the girl to come to if you want to volunteer to do a high school presentation on the Actuarial program. A little about me: I'm going into my 4th year at and just completed a summer co-op internship with Mercer. I love to water ski and travel and definitely enjoyed summer. Now that fall is here I'm sure you'll see my face in the hallways of Drake or at functions, so feel free to stop me and say hi or ask any questions you might have. Hope everyone has a great year and gets involved!

David Senensky Third Year Representative

My name is David Senensky and I am the third year representative for the 2012-2013 year! My responsibilities include organizing study sessions and the mentorship program, as well as other activities throughout the year. I'm entering my 3th year of university. This summer, I had the pleasure to intern for Manulife Financial in Waterloo. Outside of school, I love watching movies and hanging out with friends. Feel free to stop me in the halls if you have any questions about anything, or you just want to introduce yourself and say hi. I look forward to the upcoming year and making it the best it can be!

Michael Etkin Communications Chair

My name is Michael Etkin and I'm your communications chair this year. My job is to run the monthly newsletter, as well as keep you all up to date on important events and deadlines throughout the year. I'm in my 3rd year of university and 2nd year at the U of M. I enjoy teaching a lot so if you need help with homework, come see me anytime... although you may just end up helping me more than I help you. I also like playing poker, reading, and meeting new people. This year I'll be looking for Interesting stories from you, the actuary students, so please feel free to share anything and everything about yourself and how you got to be here. Looking forward to meeting you all!

The Mentorship Program

Are you currently taking first year Calculus (Math 1500 / Math 1700) or Interest Theory (Act 2120)? Are you beginning to learn about the actuary world? You don't have to go through it alone!

One of UMACs best programs is back again this year! The way it works is simple, we pair new students (you!) with older students to help you with everything from class selection to job applications. The actuarial world tends to overwhelm most people, especially in the first two months of school. We can provide some advice and companionship to help you through the worst of it. All you need to do is sign up! Come see David Senensky anytime and I will help you get paired up with a mentor. You have nothing to lose, and a lot to gain!

Have you passed Interest Theory (Act 2120)? Are you interested in gaining some volunteer experience while helping other students?

If you have been a mentee, then you already know how valuable the program can be. We've all had the experience of being overwhelmed by the vast amounts of information thrown at us in first year, now you can help another person with the pressure. Please consider signing up to mentor at least one student this year (two if you're feeling ambitious!). The mentorship program runs on volunteers, so don't be shy and come see me, (David), to get a sign up sheet.

Some Important Dates

Thursday September 20th: Speed interview signup

Thursday September 27th: Application deadline for most summer actuarial internships

Monday October 1st: Actuarial Scholarship applications due **

Tuesday October 2nd: Speed interviews

Thursday October 11th: Fish Dinner

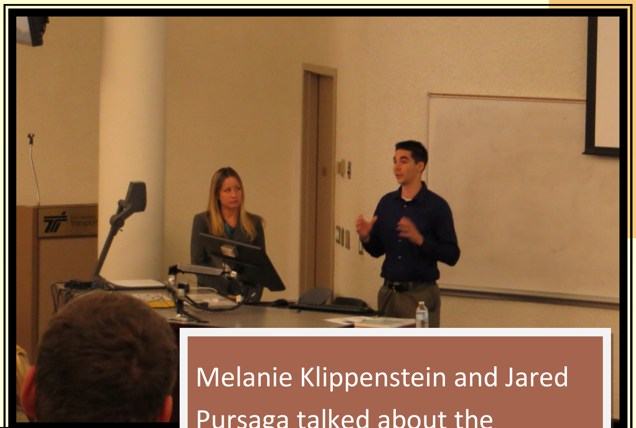
The 51st Annual Fish Dinner

The fish dinner takes place on Thursday, October 11th. This year, the event is being held at Bergmanns on Lombard; located at 620-167 Lombard Avenue. The reception will commence at 5:30pm and the dinner will begin at 6:30. This event is an excellent chance to meet and engage with peers, as well as professionals from the industry. In addition, this years keynote speaker is Nicole Fende, ASA, President and Chief Numbers Whisperer of Small Business Finance Forum, host of the well acclaimed SmallBizFinance Show on BlogTalk Radio and author of *How to be a Finance Rock Star.* It promises to be an informative evening full of fun and memories. The cost for UMAC members is $30 so please consider filling out a form at the UMAC office located at 123 Drake.

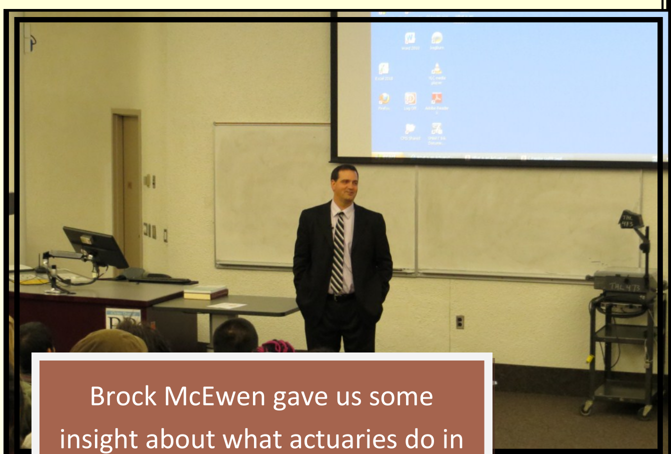
**http://umanitoba.ca/faculties/management/programs/undergraduate/ffscholar.html

What is an Actuary?

On Tuesday, September 11th, UMAC hosted the annual, What is an Actuary? event which was a great success with the record breaking number students who attended. Students had the opportunity to hear about common actuarial roles in health and life Insurance, pensions and consulting, and property casualty insurance. A special thank you to our speakers, Charly Pazdor, Brock McEwen, Melanie Klippenstein and Jared Pursaga.



Melanie Klippenstein and Jared Pursaga talked about the different tasks that a P & C actuary would do for a company



Brock McEwen gave us some insight about what actuaries do in life insurance, and why they do it

Charly Pazdor spoke about the life and work of an consulting actuary

Winnipeg Hosts ASNA

As UMAC's ASNA Representative, I am extremely excited to tell you all that the 24th Annual ASNA Conference will be held in Winnipeg, Manitoba on January 5th & 6th, 2012!

The Actuarial Students' National Association annual conference is a gathering of students, industry members, and employers from across Canada and from the United States. There are many events that take place over a period of four days that students can experience. Some of the events include: a Mingling Party in which students can meet one another and play ice breaker games; a Career Fair where students can meet with prospective employers and build relationships with members of the industry; Informational Seminars where guest speakers will talk about various subjects concerning the actuarial profession; and always-important social events!

This year, the ASNA Convention Committee is introducing a Case Competition, which will be held on January 5th, 2012. The Case Competition is meant to give students a chance to showcase their technical and soft skills, compete against the best actuarial schools in the country, represent our University, and possibly win a prize! If you are interested in representing the University of Manitoba in this year's case competition, please contact me.

In the coming months, you will hear a lot more about this amazing conference and what it can offer you as an actuarial student, so make sure you read each UMACtuary newsletter. Registration information will be provided next month and if you have any questions about the ASNA conference, please feel free to email me at ***pauljavery@gmail.com***.

Have a great month and I look forward to seeing you at ASNA!

Winnipeg Convention Center

Visit the UMAC website for academic information, a calendar, special services, ASNA information and more!

http://umanitoba.ca/actuary_club/

My Co-op Experience at Manulife

By Joseph Qian, Actuarial Campus Ambassador

University of Manitoba

I had my first Co-op term working in the Capital Management Team in Manulife Financial's Toronto office from January to April 2012. My main role was to help prepare the annual Dynamic Capital Adequacy Test (DCAT). I was also assigned to a few other tasks; including the upgrades of several Excel based tools, the reconciliation of Minimum Continuing Capital and Surplus Requirements (MCCSR) submitted by different business units, and the preparation for Manulife's Stress Test under the U.S. Federal Reserve guideline.

As an annual report prepared for senior management and regulators, DCAT examines the company's financial strength under several potential adverse scenarios. It is not only a regulatory requirement, but also a commitment by the company to provide reliable service to our customers in any situation. The preparation for the report is a large undertaking as Manulife offers a diverse range of products in 22 distinct countries or territories. Combined together, these scenarios can produce completely unique effects on our assets and liabilities. In addition, DCAT also needs to be articulated in a detailed, but easy-to-digest manner as a variety of stakeholders use the information to make informed decisions. I found it interesting to see how the accounting and corporate finance knowledge is combined with the actuarial concepts in the report.

My work term was challenging from the beginning. As I was learning my role, my manager was very approachable and always had time to answer my questions. My colleagues taught me many useful tricks and techniques to solving problems quickly and efficiently. I began to develop stronger data manipulation skills above and beyond what I learned in school, and discovered that these skills were necessary to becoming a successful actuary.

Co-op at Manulife was also a fun experience. After work, my manager and colleagues invited me to team events, such as "Capital Guys Night" to help me adapt to the team and company culture. Apart from my team's outings, there were many events for co-op students organized by the Co-op Committee and by the Co-op students ourselves. I really enjoyed the "Job Shadow Day," where all the Co-ops were encouraged to spend a day with another Co-op student learning about their partner's role and their department. I was surprised to learn how different my shadow partner's role was from mine. He was working on reconciling the actuarial reserves of some of Manulife Financial's products. While my tasks were mainly on the corporate level, his tasks were more focused on the specific products. I also enjoyed the end of the term presentation. Co-op students were divided into groups to prepare for a presentation to colleagues and leaders on a given topic within 24 hours. Although challenging, the leadership, time management, and teamwork I acquired from this session was extremely valuable and provided me with skills unique from what I developed from academics alone. The Co-op students' community organized quite a few interesting events as well. We started a tradition to go out every Thursday night together for activities such as dinner, movie, bowling, skating.

Overall, my work term was a great experience. I grew my technical and soft skills and added to my academic actuarial knowledge. Most importantly, I became more confident in my own skills and knowledge and my commitment and motivation to become an actuary has greatly increased.

The Poker Room

Check out the Poker Room for some interesting Texas Hold Em strategy as well as updates on potential poker games in and around the university!

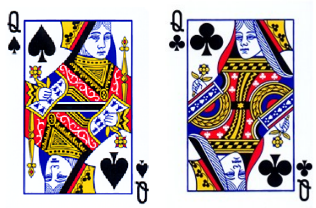
Texas Hold em is, in the short term, a game of luck. However, over time, the randomness of probability begins to give in to the law of large numbers and therefore, poker becomes a game of strategy and skill.

If you want to learn how to play the game, there are many resources on the internet teaching viewers how to play. These articles will focus on strategy assuming you know the basic rules and betting structures of the game.

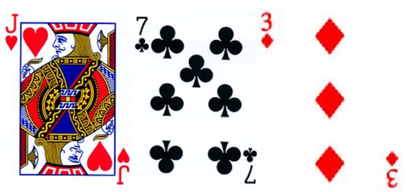
This weeks lesson: Analyzing the Flop

The first 3 community cards are called the flop. By the end of a poker hand, anyone who hasn't folded can use 7 cards to make the best 5 card hand. Of those 7, 5 of them are known after the flop (2 in our hand, 3 on the board). What we should take from this is that your hand strength is defined most clearly right after the first 3 cards are revealed. After the flop, we are looking for at least one good pair, or a draw to a straight or flush. Let's look at some hand examples. **Note**: The hand difficulties are shown in brackets.

Our Hand

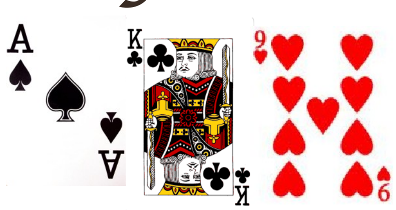


Flop 1



Flop 1: (2/5) — We have a pair that is higher than the highest pair on board, (overpair). We have a strong pair which means we should bet, and raise if someone has bet to us. However, it is important to remember that we only have 1 pair, so we are usually not looking to get all the money in right away.

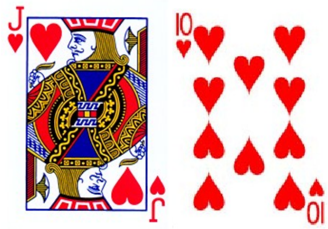
Flop 2



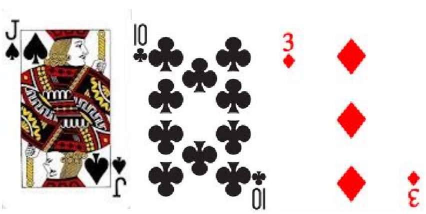
Flop 2: (1/5) — We are done with the hand. Surprised? Let's take a closer look. QQ is actually the 3rd best hand you can start with in Texas Hold em, which was good news before the flop. But notice the flop. The Ace and the King are both higher than our Queen, which means that any opponent who had any one of the 3 remaining Aces or Kings in their hand now beats us. Equally importantly, if we are losing, the only 2 cards that can save us are the 2 remaining Queens. It sucks that those 3 cards came, but such is life. Check for free and fold if anyone bets.

The Poker Room

Our Hand

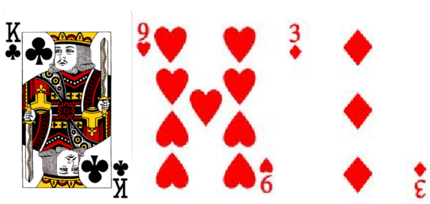


Flop 1



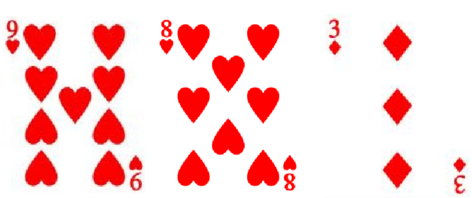
Flop 1: (1/5) — Our hand here is 2 pair, Jacks and Tens. This is a very strong hand and we should be looking to bet big, or raise big if someone has bet already. The circumstances would have to be extraordinary to fold our hand here.

Flop 2



Flop 2: (2/5) — We do not have a pair, so that is bad news. Notice, that if a Queen comes, we will have a straight. Some simple probability shows that our chance of making a straight on the next card (the Turn) is 4/47 so just under 1/12. Since this is a low chance, we should check to see a free card, and fold if anyone bets. Note that our chances of turning our hand into a straight by the River is just less than 1/6. These calculations are covered in STAT 2400. In this case:
prob(making a straight) = (4/47) + (43/47)(4/46) = 0.16466

Flop 3



Flop 3: (3/5) — We do not have a pair. Notice however that any Q or 7 will give us a straight. In addition, another heart will give us a flush. Therefore, 15/47 or just under 1/3 of the remaining cards in the deck will improve out hand to at least a straight, which is very powerful. Whenever we have at least 12 cards that can improve us to a straight or flush, we can play the flop strong and bet or raise if someone bets into us.