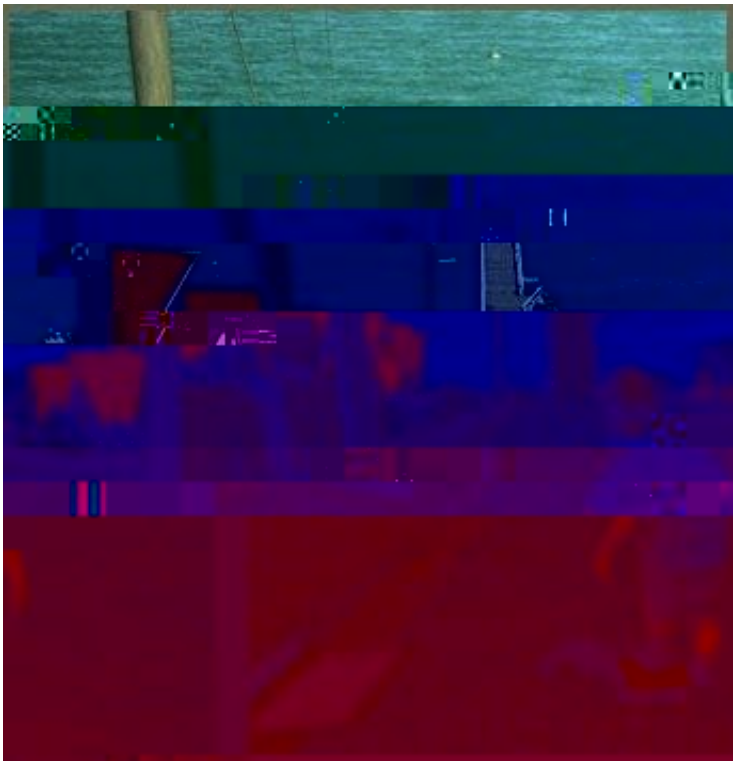
Actuarial Studies Certi cate Program Guide

March 3, 2010



by Trevor Aeschliman and Daniel He ron

Contents

1 Introduction 2

2 Starting O 3

3 The Preliminary Exams 5
- 3.1 Exam P 5
- 3.2 Exam FM 6
- 3.3 Exams MFE, MLC, and C 6

4 Studying for the Exams 7
- 4.1 Manuals 7
- 4.2 Study Advice 8

5 Actuarial Certi cate Program and VEEs 9

6 Resumes and Cover Letters 12
- 6.1 Resumes 12
- 6.2 Cover Letters 13

7 How to Get an Internship 14
- 7.1 Bene ts of Internships . . . .

1 Introduction

So you just heard the word \actuary" and you're not sure how to take it. Don't worry; you are just like everyone else, except that the profession has become a lot more relevant to your future.

Actuaries do several things, but what you really need to know at this point is that they work in risk management. Actuaries use probability, interest theory, and various other high-level mathematical and nancial topics to forecast risk and plan high cash- ow events accordingly. In general, one will hear of actuaries in the insurance or retirement industries, constructing and working with insurance or pension plans. They also work in property and casualty, enterprise risk management, and nancial consulting among other areas. Really, any time a thorough understanding of the expected nancial e ects of current statistics is needed, an actuary is the person for the job.

Now, you need to ask yourself what you are doing here. Have you always found yourself near the top of your math classes? Do you have an interest in economics, probability, or nance? Would you consider yourself a good communicator with a genuine interest in other people? If any of these t you, you are o to a good start. If all of them, you're probably in the right place. The actuarial profession runs on strong problem solving skills, a wide and deep understanding of business concepts, and the ability to explain and communicate di cult ideas to others. -329(e ec26(strong)]TJ80 -14.944 Td [(8-333(t28)-326(professi8y(ou)-)2no)2874

The most characteristic aspect of the actuarial profession is the exam process. In order to become certi ed as an actuary you must complete several extraordinarily challenging and time-consuming exams, covering many layers of di cult mathematical, economic, and nancial theory. The good side: You are rewarded very well (both nancially and personally) for the work that you will be putting in. The bad side: The exams are HARD. More detail on the exams will be given in Sections 3 and 4.

This short guide is intended to aid you in your decision to become an actuary, and if that indeed is the path you choose to follow, to help you get there with as little confusion as possible. Inevitably, you will run across some frustration here and there that isn't covered by this guide. The profession requires both brains and perseverance; understanding *and* work ethic.eranth161.191m8384(the)-384(w)27(ork)-if thatweu28(ork)-3f (ork)n

2 Starting O

Instead of attending three years of law school, or six to eight years of medical school, actuaries take exams while working. In the United States, these exams are administered through the Society of Actuaries (SOA) and the Casualty Actuarial Society (CAS) and are required in order to o cially be considered an actuary. Here are a few reasons why taking these exams is such a good deal (these are true for most companies):

- { Salary increases for each exam passed, and for reaching A.S.A. and F.S.A. designations
- { Bonuses for passing exams on the rst and sometimes second try
- { Paid study hours
- { Reimbursement for study materials

All of this can be incredibly appealing, because the $100,000+ that would otherwise have been spent on tuition for graduate work, medical school, etc. becomes $100,000+ of salary and bonuses. So, in e ect, you are a couple hundred thousand dollars ahead of someone who just graduated from law or medical school. The downside to this is that you will be working 40-60 hour weeks while attempting to study an average of 3 hours per night for exams (during study season).

There are several actuarial exams that you can potentially take, with later exams focusing on a speci c area within the actuarial profession. Every actuary, however, needs to take the preliminary exams. These exams are as follows:

- { Exam P/1: Probability
- { Exam FM/2: Financial Mathematics and Interest Theory
- { Exam MFE/3F: Actuarial Models { Financial Economics
- { Exam MLC/3L: Actuarial Models { Life Contingencies
- { Exam C/4: Construction and Evaluation of Actuarial Models

The letters in the exam names are their designated names through the Society of Actuaries, while the numbers on the right side of each slash represent their names in the Casualty Actuary Society, which is the organization you need to become certi ed in if you want to work in Property and Casualty. Most of the preliminary exams are interchangeable, so taking them all through the SOA will qualify you within the CAS as well. This manual will mostly cover certi cation through the SOA.

The rst designation that you should understand is the Associate of the Society of Actuaries (A.S.A.) designation. This designation is achieved upon completion of the ve exams listed above, Fundamentals of Actuarial Practice e-learning courses (FAP), an Associateship Professionalism Course (APC), and the following Validation by Educational Experience (VEE) courses:

- { VEE in Applied Statistics
- { VEE in Economics
- { VEE in Corporate Finance

These VEE courses will be explained more thoroughly in Section 5.

You will also need to at least be familiar with the Fellow of the Society of Actuaries (F.S.A.) designation. After reaching A.S.A., there are two 6-hour written exams to be taken in one of ve areas: Finance or Enterprise Risk Management, Investment, Individual Life and Annuities, Retirement Bene ts, and Group

3 The Preliminary Exams

extremely difficult course significantly easier. However, the course on derivative securities will give you a solid foundation for continued learning on some very confusing concepts. If you can't take Exam MFE until after you graduate, the derivatives course will give you a great start.

Exam MLC involves discounting cash flows while including the probabilities of the cash flows occurring. Exam MLC is often considered to be more difficult than MFE, and it is also a 3-hour exam while MFE is a 2.5-hour exam. A decent portion of the exam covers Markov Chains, which you will learn about in APPM 4560, Markov Processes and Queues. Neither of us has taken the exam, though, so we can't tell you how helpful the course is. It certainly will provide some benefit, but likely will only serve as an introduction for material that will be covered in much more depth.

Exam C is 3.5 hours and covers a wide range of material, including several methods for fitting models to statistics; this exam is almost always described as the most difficult of the preliminary exams. Most people say that it is the immense amount of material that makes this exam so difficult, rather than an equivalent level of intensive analytical problem-solving as is required for Exam MLC.

To conclude this section we offer you a rather dramatic yet surprisingly accurate way of describing the exams to someone else (from a post on *www:actuarialoutpost:com*):

\Tell them you're taking a graduate-level course and: 1. There is no teacher. 2. You never have class. 3. Your classmates are some of the top analytical minds in the world. 4. There is only one exam. 5. 60% of the class will fail. 6. The class is only offered [twice] a year. 7. Repeat that very same process 10 times. 8. Oh, and you're competing against the top 40% from the previous class."

4 Studying for the Exams

4.1 Manuals

Different actuarial students (anyone who has started taking exams) use many different methods in their attempts to learn the material and pass the exams. There are many different companies that create manuals (BPP, ASM, Actex, and Actuarial Brew to name a few) and tons of different books, flashcards, study guides, etc. So where does one start?

As has been stated before, it's really up to you to find what works best for yourself. That said, the majority opinion does seem to support a few specific choices. ASM is often the preferred company from which to purchase a study manual, followed by Actuarial Brew, BPP, and then Actex.

A study manual can be a huge help, but is not 100% necessary. The authors of this college guide highly recommend that you start with a study manual, as each manual will give you a comprehensive walkthrough of the material that will be on the exam and nothing more. If you spend your time solely studying books, some material will be covered either more or less thoroughly than you need, and you also might end up studying material that you don't need at all.

For many people, supplementing the manual with textbooks or other manuals can be very helpful. Though the manual that you purchase will cover almost all of the required material (not all because the SOA

We recommend starting with the ASM manual for the exam that you are planning to take, and supplementing it with a book or a different manual if you feel that you should be grasping the material better. This is another place where it comes in handy to know other people who are studying for exams; you can ask questions about the material and possibly share study materials (and expenses). Another resource, *Actuarial Outpost*, is a good place to read about preferred manuals for certain exams.

4.2 Study Advice

As we said before, the goal is to be over-prepared when you take the exam. There is a lot resting on the outcome. So, overdetermine success. When it comes to choosing a start date, you may hear to be wary of starting too early. This is for the most part untrue; its a matter of keeping the material fresh in your mind, and you can do this with consistent review. If you apply even a few of the following suggestions to your study schedule, your chances of passing will increase significantly:

1. Start 16-20 weeks before the exam. This will allow you to study a more comfortable 20 hours per week.
2. Try to understand every detail your first time through. This will make things much easier to remember, and you will be able to see connections in the material that you might otherwise miss without a good foundation.
3. Think about the material when you're not staring at a book. If you keep some of the ideas in your mind as you go about your daily activities, you will be surprised at how much better you remember them. For example, if you are studying for Exam P, try to think of each distribution, its name, and how it works when you get bored somewhere or while you're walking around.
4. Keep track of problems that you had difficulty with (and write down why you found them difficult and what you learned) so that you can redo them once you finish the manual.
5. As you go through the material, keep a running sheet of equations and things you will need to know. They add up, and this will help you keep track.
6. After every two weeks of studying, set aside 3-4 hours to go back and do a few difficult problems from each previous section. The repetition will drill the information into your brain.
7. Try to finish the manual with 4-6 weeks left. Spend a couple weeks reviewing each section and doing problems.
8. For the last month, take many practice exams. Practice, practice, practice doing problems. This is where you truly prepare yourself.
9. Try to be prepared to take the exam with a week or so left. It's best to not make that last week a scramble.
10. Get adequate sleep and eat well the few days before the exam. Take at least the afternoon of before the exam; clear your mind and relax, knowing that you are ready to pass.

Make sure to read over the syllabus for each exam so you know which topics to focus on. The syllabi as well as example questions can be found on the SOA website. Also, check out some of the forums on *Actuarial Outpost* under the section for the exam you are studying for. Students will often discuss which topics under the syllabus are covered most on exams, as well as offer suggestions and answer questions for the material.

5 Actuarial Certificate Program and VEEs

This section will attempt to cover the courses that should be taken at CU in order to meet the VEE requirements and to prepare for the exams.

Getting the VEE credits finished before graduating is beneficial for several reasons. First, the courses that satisfy the VEE requirements simultaneously satisfy some of the requirements for the Actuarial Studies Certificate given by CU. Second, since you already have to take the majority of these courses and are paying to get a degree, why not get these courses out of the way and avoid spending extra time and money later? On top of that, it will put you even closer to having your A.S.A., and employers will appreciate (reward you for) that.

Below is a list of the courses through CU that satisfy the VEE requirements if a grade of B- or higher is obtained (from the SOA website, 12-28-09; the following list was found on the Applied Math website, under Recommended Options, and Actuarial Option).

Once you have completed the two courses for each VEE credit with a grade of B- or better, you are done with the necessary coursework for the A.S.A designation and can focus on the exams and then the FAP modules and the APC. It is important to note, however, that you can not apply for your VEE credit until you have passed two SOA examinations. You should talk to your advisor during your senior year about what you will need to do to verify with the SOA that you have completed the VEE requirements.

In order to receive the Actuarial Studies Certificate at the University of Colorado, you will need to take certain courses. The necessary and suggested courses are listed on the next page.

A. The courses listed below are the minimum required in order to complete the Actuarial Studies track of the CU program. Please note that you must score a \B+" or better in Calculus 1, 2, and 3. You must score a \C-" or better in all other courses (you also need a \B-" or better in all VEE courses to get credit through the SOA).

Required Mathematics Courses

1. MATH 1300/APPM 1350 Calculus 1 5/4 cr.
2. MATH 2300/APPM 1360 Calculus 2 5/4 cr.
3. MATH 2400/APPM 2350 Calculus 3 4 cr.
4. MATH 3130/APPM 3310 Linear Algebra 3 cr.
5. MATH 4510/APPM 3570 Probability 3 cr.
6. MATH 4520/APPM 4520+ Statistics 3 cr.
7. MATH 4540/APPM 4540+ Intro to Time Series 3 cr.

Required Economics Courses

1. ECON 1000 Intro to Micro/Macro 4 cr.
2. ECON 3070 Intermediate Micro 3 cr.
3. ECON 3080+ Intermediate Macro 3 cr.
4. ECON 4070+ Topics in Microeconomics 3 cr.

Required Finance/Accounting Courses

1. BCOR 2000*+ Intro to Accounting 4 cr.
2. BCOR 2200 Intro to Finance 3 cr.
3. FNCE 3010+ Corporate Finance 3 cr.

* BCOR 1020, Business Statistics, is a prerequisite for BCOR 2200. Students are advised to substitute a Math or Applied Math prob/stats course for this prerequisite.

+ The Society of Actuaries requires students to take certain college courses which will earn the Validation by Educational Experiences (VEE). Credit Courses marked with a + satisfy this requirement, provided a grade of B- or better is obtained.

B. Recommended courses:

1. APPM 4560 Markov Processes 3 cr.
2. MATH 4120/APPM 4120 Operations Research 3 cr.
3. MATH4650/APPM 4650 Numerical Analysis 3 cr.
4. FNCE 3020 Financial Markets & Institutions 3 cr.
5. FNCE 4030 Investment Management 3 cr.
6. ECON 3818 Computational Methods in Statistics 3 cr.
7. ECON 4818 Econometrics 3 cr.
8. APPM 4580 Applied Statistics 3 cr.
9. FNCE 4040 Derivative Securities 3 cr.

Students wishing to take courses in the College of Business cannot register until the first day of classes. Students may also take BCOR/FNCE courses in summer sessions. Alternatively, students may apply for admittance to the Actuarial Studies and Quantitative Finance Certificate Program which requires grades of B+ or better in their three semesters of Calculus. Students accepted into this program receive preferential treatment with respect to other non-business students when registering for business courses.

The last paragraph is important to note. If you choose to endeavor on this path to becoming an actuary through CU, it is very wise to earn the Actuarial Studies Certificate. In order to enter the program, you must have a B+ or better in all three semesters of Calculus (alternatively, you are granted admittance if you pass one of the exams). Once you enter the program, you are allowed to register for classes in the business school at the same time or even before business students. You can find the requirements for the Actuarial Certificate at: *www:colorado:edu=asqf=index:html*.

6. Finally, display any honors you have received, and then any extracurricular activities such as intramural sports, clubs, newspaper writing, mentoring or tutoring, etc. As we said earlier, always be able to explain how each experience made you into a better candidate for the position.

This list is not very strict. Depending on what you've done, you may want to arrange some parts differently, or add in some sections such as "Leadership," "Volunteer," or "Affiliations." Just remember that you want the details that will most-please potential employers to be mentioned earlier, and to stand out. If your description of an internship is too wordy, they may not spend as much time reading it as you would like them to.

Once you've finished documenting your experiences, skills, and achievements, have an advisor, some friends, Career Services, and others look through it and do any editing that they feel it may need. Errors on a resume quickly make you appear sloppy and careless.

One good way to buy some time during the viewing of your resume is to construct a good cover letter. If you put together an excellent cover letter, the resume-sorter might give yours a more thorough look-through.

6.2 Cover Letters

A cover letter needs to be a concise and engaging explanation of why the organization wants to hire you for the particular position that you are applying for. In other words, you want to make sure that it's of a comfortable length so that the reader can finish it quickly, as well as that it is interesting to read. Three to four paragraphs should be sufficient. You should try to split the cover letter up as follows:

- First paragraph: Describe the position you are applying for, and why you think the position is

7 How to Get an Internship

7.1 Bene ts of Internships

An internship is a great way to gain experience and insight into the actuarial eld. Although not necessary for landing a job, internships are a huge help for several reasons. First of all, internships are essentially a two-way interview: you get a chance to nd out if you like the eld and the employer, and the company gets a chance to learn about your abilities and work ethic before making an expensive commitment. Summer internships are generally considered by the company to be a three-month interview. Personally, we think having three months to impress a company is a lot easier than trying to sell yourself in a thirty-minute job interview. Take advantage of internships as they are a great resource for learning how everyday work in the actuarial eld could turn out for you in the future.

A few more of the many bene ts to internships are that you gain valuable experience in the eld, get a better idea of the type of work you'll be getting into, and get the opportunity to start o before you graduate rather than starting fresh right out of college. Having an internship under your belt going into your senior year of college will give you a HUGE advantage over other job applicants who are similarly quali ed yet lack an internship.

Remember, an internship isn't required for getting a full-time job, but it is highly desirable, as we will continue to try to convince you. Internships look great on resumes, especially when you place them near the top next to your exam results. Internships will often provide a lot of material to talk about during full-time job interviews, which makes them a great tool to use to impress the interviewers and convince them of how much you learned during your internship. If you happen to get an internship, make sure to document all of the things you do and learn throughout the experience, to better prepare you for discussing these things in job interviews.

And of course, there are numerous perks to internships during the internship itself. You get the opportunity to establish relationships with your co-workers which will often result in good references for future jobs, or as useful resources for information on other companies or other areas of the actuarial eld. Most summer internships will provide temporary housing or a housing stipend during your summer, and almost all internships in the actuarial eld are paid. You can expect an hourly wage of anywhere between $15 and $25 an hour, which is double or triple what some of your friends will be making at their typical summer jobs.

Finally, an internship will be the best way to decide whether you really want to be an actuary. The only way to truly get a good basic grasp on the profession is to spend three months practicing it. It took our entire rst internship to learn just the basics of what actuaries in our respective areas do. By the way, we may have forgotten to mention: internships are very, very good things to have.

7.2 Getting an Internship

By now you might be asking yourself how you can get in on this action. Don't worry, we've got you covered. The following are a few ways to nd that perfect rst step in the door.

1. The rst thing you should do is attend one of CU's actuarial open house meetings. These occur once per semester and consist of a panel of actuaries in the Denver area who come and talk about their experiences in the actuarial eld. Typical topics include the actuarial exams, internships, and

di erent areas of actuarial science. These panels are fairly informal, but you should come dressed in business casual with ve or six copies of your resume and cover letter. Contact the Applied Math department for the date and location of the actuarial open houses. This information is also normally sent out by email to Applied Math majors, so be on the lookout for this great opportunity.

2. Another good resource is CU's Actuarial Science and Quantitative Finance website. It's somewhat out of date as far as the right exam data and course numbering, but under the Actuarial Studies Track tab on the left hand side, there is an Internships link. This should take you to a pdf list of Denver companies who employ actuaries or o er internships. Check it out at: *www:colorado:edu=asqf=actuarial*$_s$*tudies=documents=internships:pdf* You should try to contact several of these companies while you are in college.

3. Start talking to companies as early as possible in your college career. Above all else, if you can make and maintain a contact within an organization, your resume will quickly rise to the top of the pile next year. Another reason the open houses are so useful is that they allow you to directly communicate with several representatives from di erent organizations. If you physically meet and communicate with an individual working at a company during your sophomore year, then in your junior and senior years you'll already have a contact at the company whom you can ask to forward

7.4 Extra Advice

On top of simply answering questions and talking about yourself, you need to appear friendly and easy to talk to.

- Be confident, happy, and excited. Dont forget to smile.
- Look them in the eye during the interview.
- Ask the interviewers questions about themselves. Try to discover something that the interviewer likes, and if you can get them to talk about it and also be genuinely interested in what they are saying, they will likely remember you as an enjoyable person to talk to. Being genuine is key; we'll leave achieving that up to you.
- Never be modest about something you have accomplished or achieved.
- Always express a sincere interest in their company.
- Write down questions you have about the company or the field or the work you will be doing, and bring them to the interview and sit them right in front of you. Always ask a few questions at the end of the interview when they give you the opportunity. This shows you have interest, which will in turn increase their interest in you. It is also a great chance to learn from someone who already knows what it's like to be an actuary.
- Finally, follow up with a call or email thanking them for their time; this will also show you are still interested. Of course, in order to do this you will need their contact information, which you can get at the end of your interview.

So you've landed an internship, and you are pretty much set. Don't worry about knowing anything on your first day. They expect you to know absolutely nothing. Your first day will likely consist of meeting lots of people (and trying to remember their names), and filling out paperwork. During the internship, it is very important to keep track of, or at least remember, all of the things that you do. Write down projects and assignments that you work on, difficulties that you have, and situations in which you needed to take initiative. When you're applying for jobs, this documented information will be extraordinarily helpful.

Now that you have had an internship, you are well on your way to getting a job, which we will cover in the next section.

8 How to Get a Job

Much of the information in the previous section still applies, but there are a few di erences.

If you have had an internship, the questioners will want to know about it. They will quiz you on what you know about the profession now and why you are still interested in it. They will also want to know a little about the work you did, not because they are actually interested, but because they want to see how well you understand what you did and what you learned. Be prepared to discuss situations where you discovered something or took some initiative to solve a problem on your own instead of asking. Be able to describe things you learned about the job that you didn't foresee and express them in a positive light. We repeat: they want to know that you can think quickly and analytically, communicate e ectively, and work hard. Try to come up with situations from your job in which these qualities were exhibited.

It is a good idea to come up with around 15 situations before the interview and think about what you will say about them. During the interview you can use these situations as examples and responses while they quiz you.

If you have not had an internship, the questions will likely be very similar to those mentioned in the previous section. As before, recall situations in which you exempli ed desirable qualities and situations that you learned from, and prepare to answer the usual questions.

Organizations looking for entry-level workers may want to know about your plans for the future and your ability to handle the speci c tasks that are required for your chosen area. For example, if you choose to become a consultant in the retirement eld, the company will want to hear about how you handle a more volatile work schedule, and what would make you a good consultant. Be prepared to explain exactly why you expect to do well with every requirement as well as your unwavering interest in doing so. It is also good to somehow sneak in some long-term goals such as when you hope to reach your A.S.A or when you will take your next exam.

Finally, location is now an issue. If you limit yourself to one area, getting a job may be a bit more di cult.

These get you the job o er:

1. Oral communication skills.
2. Your knowledge of the company as perceived by interviewers.
3. Answering simple questions correctly.
4. Answering the unusual questions correctly.
5. Putting up with HR.
6. Appearance.

Remember to go to several company websites for companies that employ actuaries and nd testimonials of employees. Read them and try to remember as much of what they say as you can. Then, in your interview, keep these remarks in mind. Knowing how to BS is a communication skill, and what will really make you stand out is being able to think quickly and turn any question into something that e ectively communicates the idea that the organization will bene t from hiring you.

9 Being an Actuary

Now that you have a good topical understanding of the actuarial profession, as well as an idea of where to start, you're probably asking, \Why would I spend all of that time and e ort?" In fact, there is a multitude of reasons that a person would want to pursue a career as an actuary. It does, however, take a certain type of personality.

Actuaries tend to be perfectionists. You need to be able to nd enjoyment in working very hard to achieve a goal. If you are very good at math and communication and are willing to put in the e ort, the actuarial profession could be the perfect challenge.

If you are reading this manual, you probably t the necessary criteria. But why be an actuary rather than an engineer, a doctor, or a lawyer? It's up to you. The actuarial profession provides much steadier work hours than doctors, many lawyers, and probably many engineers. It has excellent job security once you've managed to land a job, and the pay is excellent.

Life after college will be di erent than you expect. Many people turn away from the actuarial profession because they don't immediately see the great career for what it can be. With any job after college, life is going to change. After erratic sleep schedules, homework assignments, and di erent classes every four months, routine and repetition can be disconcerting. Whatever you end up doing, you are going to have to make some unpredictable adjustments.

Finding the perfect profession can be frightening and confusing. You should constantly be asking yourself how you feel about the possibilities you are considering. On the journey, be aware that the appreciable qualities of an experience are often things that you aren't even looking for; it's easy to come up with a paradigm of a good experience and close yourself o from enjoying new things that initally seem pointless. Always be open to discovering a di erent way of enjoying the world. We all grow up mocking our parents for drinking tea and listening to Beethoven, but with an open mind we can eventually uncover what it is that others have found so enjoyable.

Actuaries spend a lot of time at computers, at least for the rst few years. They have to take many di cult exams, and especially when things like marriages, kids, or family problems show up, exams combined with the job can be stressful. However, few careers will challenge your intellect constantly, surround you with friendly and intelligent people, provide a comfortable working environment, and compensate you so well for it. Not only that, but the exams don't last forever. The actuarial profession has consistently been ranked as one of the top jobs by most major surveys for the past few years{there is a reason that many actuaries are happy.

Brief as it was, the information in these 20 pages took a few years to come to understand. We truly hope that this guide will allow you to get a good running start at becoming an actuary. The University of Colorado is an incredible place to earn a degree, but makes becoming an actuary more di cult than a university with a full actuarial science major. However, independent thinking will carry you very far in life, and the individual e ort that you put into progressing through the exam process will undoubtedly be noticed by employers{not only that, but you will learn many things that you otherwise might have missed out on. The challenge of becoming an actuary has been incredibly rewarding, and we wish you the best in nding the same satisfaction with your college experience and future career.

10 Author Biographies

TREVOR AESCHLIMAN

I grew up in the small town of Burlington, Colorado, riding horses and participating in the school's wrestling program. After graduating from high school, I spent a year at the Colorado School of Mines. Engineering was not my thing, so I transferred to CU and spent the next four years in philosophy and applied math courses. During college, I engaged in several extracurricular activities, considered being a lawyer for a little while, and spent two and a half years as president of the CU Philosophy Club. I graduated from the University of Colorado in May 2010 with a B.S. in Applied Mathematics, the Actuarial Studies Certi cate, and a minor in philosophy.

As for becoming an actuary, I passed Exam P at the end of my second year at CU, passed Exam FM my third year, and had an internship with Towers Perrin (now Towers Watson) the summer before my nal year of college. Currently, I am incredibly excited about the actuarial profession, perhaps even too excited, and hope to spend at least the rst few years out of college working in retirement and bene ts.

DANIEL HEFFRON

I spent my childhood and high school years in Rogers, Arkansas and graduated with the intention of attending college in the great state of Colorado. I entered CU knowing I wanted to major in Applied Mathematics, but with no idea of what I wanted to apply it to. I quickly discovered my dislike for solving engineering problems and just as quickly turned to the economics and business elds for other options. I graduated in May 2010 with a B.S. in Applied Mathematics with the actuarial option and an economics minor.

Before college, I held typicwithooooandand7athem7nterv27(for)-(o)-anthem7ntner-370(heanthem7n)as68(ahem7n)s(.