

## Advice from a Graduating Senior

There is no way that a person can be fully prepared for the freedom, the temptations, and the challenges that lie ahead of them as they leave high school. It is part of growing up to make mistakes, fall flat on your face, and learn from it all. In my four years, I have done all of these things. If there is any advice I can give to a future college student, it would be the following:

- Study something YOU enjoy, not something that your parents want you to enjoy.
- Credit cards are bad.
- Friends will get you through hard times.
- You can survive on Top Ramen for four weeks, if needed.
- If you choose to drink alcohol, take it in moderation, and no matter what anyone ever says, it is not cool to drink and drive
- There is nothing better than a home-cooked meal, so enjoy it now.
- BS may work in high school, but it is seen for what it is in college.
- Make friends with at least one professor.
- A nice car can wait.
- Above all, enjoy it, because before you know it, you will be done. This is the last time in your life when it is okay to be broke, you can sleep in, you get two weeks off for Christmas and one week in the spring, and you still have limited responsibilities.

Good luck and have fun! I know I did!

UW Soul Participant BA, American Ethnic Studies Second Lieutenant, United States Air Force June 2003

### Welcome

We're glad that you have chosen the UW!

With the generous help of nine undergraduate researchers, we've been tracking 300 UW students for four years in a project called the UW Study of Undergraduate Learning (or UW SOUL). We've talked to UW undergraduates as they got started here (as you are!), moved through their courses and majors, and either graduated, continued into their fifth year, or left the UW for other reasons. This booklet reports some of the things that participants in the UW SOUL have said about their four years here—particularly about the first year. While you are reading this booklet, we want you to keep in mind the questions we raise throughout, beginning with this one, which we have asked students over the last four years:

### What does it mean to be educated?

On the next page, you can read 10 students' responses to that question. And this is the way this booklet will be organized. We'll pose a question, and then we'll tell you how UW SOUL students answered it, using their words as much as possible. Also, scattered throughout this booklet are boxes labeled "Turning Points." The quotations in these boxes are students' answers to a question we asked them in their fourth year at the UW: "Have you had any experience in the last four years that you consider a 'turning point'?" We encourage you to think of turning points you have experienced already, as you read about the experiences of others.

We hope that you find something useful in this booklet. And, once again, welcome to the UW.

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## What Does It Mean to be Educated?

- 1. "It is the confidence of being able to question things. Whatever you believe, you should be able to put it to the fire; you should be able to challenge it."
- "I know a guy who has not gone through college but who has taught me a lot. Being educated is being willing to learn through life's experiences, and what has been handed you...."
- 3. "To be educated means that you have looked at something from as many different points of view as you can think of."
- 4. "To be educated is to question, to question the truth. Whose truth is it? Why should that truth be my truth? What we are learning in college is to question."
- 5. "Being able to hold a conversation with someone and not blow up in their face because you disagree—to come to an understanding, even though you disagree."
- 6. "It involves open mindedness, new vision—seeing things in a different view—you take things in and critically analyze them."
- 7. "An educated person understands that there is more beyond their own little sphere of understanding."
- 8. "It doesn't mean knowing. It means being able to find knowledge. I think an educated person doesn't have to know the theory of relativity but they should be able to know they need to look in a physics book to obtain that information. That's always been the hallmark of an educated person to me—one who seeks knowledge not necessarily one who has it."
- "Having had the experience of having your own beliefs challenged—just figuring out one thing you didn't know before, if you can look at that from a new perspective."
- 10. "Sometimes it is knowing you can't know what you need to know."

## Introduction: UW SOUL

The University of Washington's Study of Undergraduate Learning\* has tracked 304 undergraduates for four years, beginning in 1999, when they entered the UW. About 64 percent of these students entered as freshmen and 36 percent entered as transfer students.

In the four years that we followed them all UW SOUL participants filled out more than 12 web-based surveys and answered approximately 24 open-ended email questions about their experience at the UW. About half of the 304 students participated in entry and yearly interviews and focus groups. This group also turned in portfolios of some of the work they had done each year, as well as reflective essays describing that work.

The UW SOUL focused on six areas of learning:

- writing
- critical thinking/problem solving
- information literacy
- quantitative reasoning
- understanding and appreciating diversity
- personal growth

The study's population is quite similar to the general incoming class of 1999, except that the SOUL students entered with somewhat higher high school GPAs and test scores than their non-SOUL counterparts and the SOUL group intentionally includes more under-represented minorities than the entering student population in 1999.

"I think in the last year I have really begun to appreciate this incredible opportunity I have had to learn. School used to be just a place where I was so focused on my grades that I really wasn't learning anything. It has been quite a freeing and enlightening experience to learn that life isn't about the grades. I finally have come to the realization, that yes, grades are necessary, but they really tell you nothing about a person's knowledge and who they are. That may seem like a stupid statement or something that is incredibly obvious, take your pick. But my first two years here, all I did was get by. I was rowing, and I managed to get everything done, but as I came to the summer before my junior year I looked back and realized I had learned nothing. Yeah, my GPA was a 3.7—very good—but I couldn't remember what I had learned the quarter before.

That was probably the number one thing that I learned, the most important thing I could have learned at the UW—that I am here on this earth to experience life. not just get through it. I quit crew and it was like all the curtains lifted. I could jump out of this box of my own making. Doors opened that I never knew were there. That is what college taught me, that is what the university and my few amazing professors taught me—there is so much out there to learn and if you open yourself up to it, you can reap the benefits. There is nothing more fulfilling than walking away from a class thinking, 'Wow... I never knew that,' or 'Wow, I would love to learn more about that.' For me, the most important thing has been the change I have made within myself and what I outlined (not very clearly, sorry) above."

## What Do You Want to Learn Here?

UW SOUL participants have told us that they have many goals for their own learning here and that, while good grades are important to them, learning means more to them than "booksmarts."

Here's one student's response to an interview question we asked her in her first weeks at the UW about what she wanted to learn here:

"I want to learn about life in the city, about science. I want to pick a field and become knowledgeable about it. I want to learn about the community, how it works. I want to learn about living with a person. The roommate experience is totally new to me. I want to learn how to compromise, how to work together, how to be a better leader, how to ride the Metro bus system, where all the cool places to hang out in Seattle are, what it feels like to live somewhere where it rains more than nine inches a year, how it feels to work with a professor who is on the cutting edge of knowledge and is passionate about what he is doing. I want to become more passionate about things."\*

In focus groups conducted every year, we ask UW SOUL students how they define college success. Every year, their answers are similar. College success means gaining knowledge and skills, getting good grades, finding something they love to do, making and spending time with friends, and learning about themselves.

#### Turning Points: Study Abroad

- "A major one was my study abroad time. That was huge. It was right after Sept. 11 in Berlin, taught by the Comparative History of Ideas Program (CHID) about topics I normally wouldn't touch with a 10-foot pole. But it really goosed me. I look around at buildings—these days still—to understand their architecture because of that time. I think about how things are constructed and why. We were trying to understand the identity components in things. Had I not done this trip, I would not have another side to me. I'm really glad today that when I am walking around, I am looking at negative space above a building. I don't just look at the functional nature of something. And I met really really wonderful people on that trip—friends who are thrown together just because you have all picked something, and several of them have remained in my circle of friends."
- "It started off with the International Studies 200 class and then worked its way into study abroad. That SIS 200 class made me realize that there was so much more than Seattle, and that there was so much more going on in the world and I needed to try to learn about it. And then I went to Italy to study abroad. That was the same kind of learning experience, but I experienced it for myself. I grew up a bit, traveled on my own, which was scary."

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of this booklet.

<sup>\*</sup> All quotations in this document are from UW SOUL participants unless otherwise noted.

<sup>\*</sup> You can read about this student's turning point on the last pages

## Who Are You Among the UW's New Students?

In Autumn 2003, approximately 1500 transfer students and 4800 freshmen will join the UW community.\* About 52% are females and 48% are males, reflecting the general undergraduate population at the UW where women slightly outnumber men.

### TRANSFER STUDENTS

- About 82% come from two-year colleges.
- 40-50% of every UW graduating class are students who transferred to the UW from another college.
- In terms of GPA, by the time they graduate transfer students can expect to perform a little better than students who enter the UW straight from high school. Average GPA for graduating seniors who entered the UW from high school: 3.12. Average GPA for graduating seniors who had transferred from Washington community colleges: 3.15 (3.23 for those who transferred from other Washington four-year institutions).

### **FRESHMEN**

- Entering the UW, approximately 80% were in the top fourth of their high school graduating class.
- 44% were in the top 10% of their high school graduating class.
- Represent 44 states and 28 countries. (68 countries are represented in the whole UW undergraduate population.)
- Average freshman GPA at the end of the first year: 3.02.
- About 40% graduate within four years, and the majority graduate within five years.
- 90% of UW freshmen return for the sophomore year, which is a very high retention rate in comparison to most other four-year colleges and universities.

### Turning Points: Transferring to the UW

"My university experience has changed how much I believe in myself. I am going to come away from here with a lot more confidence in what I can do. I had these preconceived notions about coming to the UW. It was larger than the city I was born in. I was overwhelmed by the system, the requirements. The confidence I have gained over the last two years was dealing with and overcoming those large institutional hurdles. The grades I have received in the classes have shown me that I am as potentially sharp as everyone else in the room. My small town experience hasn't negatively affected me, and in fact, it allowed me to bring things into the conversation that others may not have thought about. I guess I feel like if I can tackle these problems here—I feel like the world is my oyster. I think anything I want to do is accessible, and I can do it with confidence."

## What Helps Your Learning?

Each quarter UW SOUL participants fill out surveys that ask them what helps their learning. They also answer this same question in focus groups. Results from surveys and focus groups are similar. Students report the following things help their learning the most:

- Having course readings, assignments, lecture notes, or other content materials on the web
- Having professors/teaching assistants who are passionate, helpful, know their stuff, and care about students' learning
- Working with study groups and peers
- Liking the subject before they take the class
- Their own efforts—reading, studying, doing their homework, going to class, staying focused

In addition to these reasons, students often report in interviews that the courses they learn the most in are the ones that are the most challenging, "Good profs. A really good prof is someone who can communicate and knows his subject well, and when you are in the presence of that, you can't NOT learn.
You go to class."

"I'm kind of a study group junkie. It helps because sometimes people catch what I don't catch, and just talking things through helps."

requiring them to think deeply about a subject and to demonstrate their thinking by writing papers, giving presentations, or completing projects. Furthermore, such challenging courses also prove to be students' favorite classes, as well as the ones in which they get their best grades. Some other interesting findings:

- Students report that using the internet for unassigned research is as important to their learning as using it for assigned research.
- Students find that talking with peers about ideas and values not directly related to class work helps their learning more than working with groups on class projects and papers.
- Feeling that their peers think they are intelligent and capable is as important to students' learning as feeling that their instructors think they are intelligent and capable.

### Turning Points: Study Groups and Professors

"I think a turning point in my career here at UW was actually last quarter. I learned that I couldn't take my classes as I had done the past three years. I learned that I wasn't studying to the best of my ability. In the past, I thought studying meant staying up really late and doing a lot of homework problems. But last quarter I learned that going in and having a one-on-one conversation with the professor really helps you learn. I don't know what changed me. I think it was the people I was doing my homework with. It was that we felt really comfortable with the way the professors were teaching the class, and that inspired us to go in and ask questions. And they really encouraged us to go to office hours.

<sup>\*</sup> Information on freshmen and transfer students on this page comes from the UW's Office of Admission Autumn 2003 enrollment figures are estimates and other figures are based upon the entering freshman and transfer classes of Autumn 2002.

#### Turning Points: Realizing What Matters

"At the beginning of this year, I realized I needed to get my butt in shape and start being self-motivated in regards to school. It hit me at the beginning of the quarter that I am going to be the first person to graduate in my family from college. I feel that a lot of weight is on my shoulders for me to do good. I think things coming down to the end of my college career adds to that. I think I have taken my classes or my time here for granted, and that is recognizing that I have put in some time but not as much effort as I could have. This year, I manage my time better. I actually manage it; I don't let it go to the wind, even though that is how my personality is. Life is too short to worry about things that don't matter. But I guess I realized that this really does matter to me. I've realized how much my mom has sacrificed for me to be in this place."

## What Hinders Your Learning?

Each quarter, we also asked UW SOUL participants what hindered their learning. Most students blame themselves for hindering their learning, as you can see from their top five responses below:

- Distractions/self-discipline—wanting to play instead of to study
- Their own procrastination
- Relationship worries—parents, girl/boyfriends, friends

"The first day you realize the world is not going to fall apart because you don't attend a class is a very dangerous day."

- Professors/TAs who were disorganized, confusing, or unclear
- Poor study habits

## 22 Things That Students Say Interfere with Their Learning

- 1. "My computer. Computer games."
- 2. "Napster."
- 3. "Living with a person who is not in school."
- 4. "The HUB. Socializing there."
- 5. "My boyfriend."
- 6. "I like TV."
- 7. "Napping at inappropriate times."
- 8. "I got sick this quarter. I took my finals with strep throat."
- 9. "Time budgeting. I have to shackle myself down to do what I need to do."
- 10. "If you are going to do well, don't make any friends."
- 11. "[The profs] were so bad, I ran out of doodle room on my note page, so I had to doodle on my pants."

- 12. "Five hours of commuting a day."
- 13. "Personal and family stuff."
- 14. "Just getting over the hump of getting started."
- 15. "Tetris!"
- 16. "Going shopping on the Internet."
- 17. "Parties don't help either"
- 18. "The rain."
- 19. "I miss one class and that makes it easier to miss the next one."
- 20. "A class so boring it would be less painful to stab a pencil into your leg."
- 21. "I have to work 40 hours per week to put myself through school."
- 22. "In some of my really big classes, people talk during the lecture, and it is really frustrating."

## What Do You Think of FIGs and TRIGs?

About 41 percent of UW SOUL participants were in Freshman Interest Groups when they entered the UW in 1999. Four years later as seniors, nearly 60 percent remained in social and/or academic contact with members of those groups—nearly 20 percent in frequent contact. Looking back on their FIG experience at the UW, 90 percent said that experience had been valuable in helping them get started at the UW, with 40 percent of those students saying that the FIG experience had been "very valuable."

One of the UW SOUL students who was in a TRIG had this to say about his experience at the beginning and end of his second year at the UW:

- October 2000: "The most important thing that happened to me last year was the transfer class I had. I ended up taking this TRIG right at the last minute, and I'm glad I did because it changed my life course here at the UW. I met four other transfer students who are now not only good friends but great study partners. We take a lot of our classes together and keep each other up on the good and bad courses. They are all dedicated students, as well, and provide me with a little booster when I need it."
- June 2001: "I made friendships in the TRIG that have lasted through my two years here."

#### Turning Points: Freshman Interest Groups

"Probably taking that first FIG. It was a dance and drama FIG that I signed up for during freshman orientation. I met this girl, and we just got to know each other. My intention for coming to the UW was to go into computer science. But she said, "Let's take this FIG." Ever since, I have been dance-motivated. If I hadn't taken that, I don't think I would have minored in Dance. Had I chosen to go the computer science path, I wouldn't ever have known what kind of joy dance brings me."

### What's Your Major?

UW SOUL participants have a lot to say about majors. First, they say that they are surprised that they have to apply to majors at the UW. As one student put it:

"One of the main things that I wasn't familiar with was that it is tough to get into the UW, but once you get here you have to get into a program. And getting into a program is hard. I didn't realize that when I came here."

"I love Community and Environmental Planning. It's not just a major; it's an experience."

Sometimes students believe that if they meet the published application guidelines for majors, they will automatically be admitted, but that is not always the case. For example, the website for the UW's School of Business lists a 2.5 as its required cumulative GPA for undergraduates applying for admission to the

Business School, most often in their sophomore year. However, the average GPAs of students who were actually admitted into the major in 2003 was 3.54.

"Accounting. It's hard—and that's the thing that's good about it."

Where do students get help in finding majors? Many students find their majors by attending a class that they love. Some students report getting help from

friends. Others say that it is important to talk to advisers and counselors, including those in the Gateway Center, the Office of Minority Affairs and its award-winning Instructional Center, and the departments. Here are some students' comments:

"Architecture. There isn't anything I'd rather be doing."

- "If there is one thing that I am disappointed in is that one doesn't really get an adviser until after one has declared one's major but it is those first two years when all one is taking is prerequisites that I think an individual adviser is the most important."
- "A counselor in OMA did make me feel that I could approach her if I needed anything."
- "My goodness, if it weren't for my counselor I would not even be enrolled. My counselor has helped me a tremendous deal of times. She meets with me whenever I need to. She goes through all of my options for the best schedule for me and really listens to me. That is so important...."
- "My department undergrad adviser had been a great help. She always had an answer to all my option questions. She walked me through all of the steps of applying to the department and offered advice as to what I should take. I think she really cares about the students."

"International Studies. What I love about it is the broad range of classes you can take."

"Cell and molecular Biology. It is a good major, because there are a lot of options about what kind of classes you can take."

#### Turning Points: Five Paths to the Major

- 1. "When I got denied for the second time for Business School, I didn't have a backup plan. I didn't know what resource to use to ask questions or get help to figure out what to do. It was just a coincidence that I found Law, Societies, and Justice. I was fed up with school, and I really contemplated just quitting. Then I got into LSJ, and I am glad I did. I totally love school, and I want to go on now."
- 2. "Maybe Political Science 203. 'Turning point' may be too strong a term, but that was a class that got me really interested in political science and the theory of it, international relations. You don't focus in the major, but after that, I took classes that were appropriate for an international relations major."
- 3. "Spring quarter of my first year here, I was doing architecture and it was terrible. I was awful. I had always thought I wanted to be an architect, and that quarter I realized I didn't want to be one. That was my first art class, too. I didn't know until the next quarter what I would be turning toward. I was stupid and continued with architecture the next quarter, just feeling like I should stick with it and that was even worse. Winter was when I knew I wanted to switch to art. I finally made that switch the next fall. There are connections between the two—I like structured built things, clean lines. I didn't like the flat drawing part of architecture. I have to have dimension in the stuff I do."
- 4. "Yes. When I took the murder class—Soc 275/LSJ 275. I was on the pre-med track and when I took that class, I switched. I took it the second quarter I was here. When Keppel came in and told us about the investigations on the Green River killer and Ted Bundy—how they had to take the smallest bit of evidence and think so far outside the box to come up with suspects—it just struck me that that was something I could see myself doing as a career."
- 5. "The first Landscape Architecture class, Spring 2001—beginning of the third year here. I got Professor S, and he was the one who made me go to Rome. That made me definitely decide to go to Landscape Architecture. Every quarter after that I took a class in Landscape Architecture. I had him for five quarters in a row. I got into a major that I felt I could actually do something with and that I would enjoy and that I could make decent money at. From then on, after that quarter I pursued that."

### How Hard is the UW?

On surveys about Autumn and Spring courses taken in their first year at the UW, about two out of five UW SOUL participants found their courses very challenging intellectually, while more than half found them somewhat challenging. Very few students reported that their courses were easy, as the table below shows.

Survey Question	Very Challenging		Somewhat Challenging		Fairly Easy	
	Fall	Spring	Fall	Spring	Fall	Spring
How intellectually challenging were your UW classes this quarter?	39%	42%	53%	53%	8%	5%

In email responses, more than half of the UW SOUL participants said that their courses were harder than expected, while about a third described their first year courses at the UW as about as hard as they expected. Two students' comments illustrate the email responses:

- "I was a Running Start student for two years, and I felt that I was at least a little bit better prepared for the classes here because I had that college experience....I think that I knew things here would be harder than the community college level, but I felt that I at least had an idea of what to expect. I guess that I feel a little overwhelmed. Things here are a lot harder than I expected, but it is possible that the classes that I am taking are just plain hard for anyone, but they are especially hard for a person of freshman age with junior status."
- "I think I was most surprised by the expectations of my professors. In high school, we were able to get away with more, miss more classes, study less. When I came to college, the bar was raised, and I was forced to try my very best in every class."

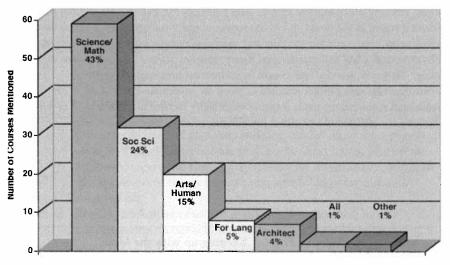
#### Turning Points: Becoming a Camera Guy

"Another turning point for me came this year. I've been doing independent films with people I've met on campus, and I've built connections all along the line by accident—someone will help out with one project or be an actor in another, remember me, and ask me to help with their project. I've done that for the past three years here, and this year that has taken off. There's an actor in one of the first projects I worked on who is an excellent actor and a writer, and he has teamed up with this guy whose parents bought him all this equipment. They formed a production company, and they figured that I was a camera guy, even though I haven't had that much experience behind the camera. So I kind of fudged my way through our first project. All I needed was to have the camera in my hands and figure it out, through experience. Now I am a camera guy for this guy, and we are producing some really cool stuff, and I am really excited about that."

# Will You Have Trouble in Your Classes During Your First Year at the UW?

About 77% of the transfer students and 88% of the freshmen in the UW SOUL said that they had done badly in at least one class in their first year at the UW. Most of those students (about 89%) defined "doing badly" as getting a bad grade, and the average grade they considered "bad" was 2.6. The range of "bad grades" students reported was 3.9-0.8.

The courses in which students felt they had performed badly in that first year are categorized on the chart below. As the chart shows, 43% of the courses students felt they had done badly in were math/science classes, followed by social science courses. The courses that freshmen reported doing badly in were especially concentrated in these two areas, while transfer students reported a wider variety of courses.



Most students blamed themselves for doing badly:

"I didn't like the material. It was high level—organs and so forth, and I didn't think they explained enough. The textbook wasn't that good. That was one factor in my not studying. I also got a computer game in the winter, and that was a serious factor too. It took all winter quarter to beat." (Transfer student)

"I think I didn't realize how much work I had to do at the start, that I had to go over it and teach myself what I had to learn there. In high school, if most people didn't understand it, you would go over it in class, but that's not what happened here." (Freshman)

## What Makes the UW Challenging?

According to UW SOUL participants' responses to email questions about the level of expectations at the UW, the main sources of challenge are:

- Balancing the personal and academic
- Reading level and amount
- Learning to write and think in the disciplines
- Asking questions in and outside class
- Level of thinking required to do well
- Time it takes to complete schoolwork
- The need to learn/work on one's own

One student speaks about the level of challenge at the UW, midway through the second year:

"I have been in 200 and 100 level classes in my one-and-a-half year history here at the UW. The workload has been satisfactorily tough. In my International Studies 200 class, we were asked to write six one-page papers in the quarter plus a major paper about a region in the world and its international historical significance. This was challenging to be constantly writing and reading about class work and outside material. Another class I had that quarter was Environmental Science 110. This was an easier class. However, we also had to turn in an Internet presentation about an environmental science topic and had to go on an environmental field trip. The additional requirements made learning much more worthwhile. Nearly all of my classes have required me to stretch my thinking in some way here at the UW."

#### Turning Points: Keeping up with the Math

"The science classes were too challenging. That's what made me change my mind about my major. That was really painful because I really wanted to get into engineering, but I couldn't keep up with the math and stuff. I switched to architecture after the first quarter of my second year."

## What Do You Need to Know... ... about Balance?

In focus groups and interviews, students talk about balance—about keeping all the things that matter to them central in their lives. School matters, but so do friends and family, social and political issues, free time, self-reflection, romance, and fun. However, it is not easy to maintain a balance, and students

"One thing I guess I would say that people don't know is that college is a blast. They always talk about academics, but it is a blast. It absorbs you more than either high school or community college."

sometimes find they need to let one thing they value slip to take care of another.

#### From a Focus Group of Freshmen:

- Student 1: I think about relationships far more than about academics or than anything else. If you had to measure the time I spend thinking and involving myself in relationships, it would be far more than even study time. Romance and friendships.
- Student 2: I agree.
- Student 3: I think that is more important than studying all the time. There's the books part and then there's getting along in the world.
- Student 4: It's like another kind of learning.
- Student 5: What we learn in the classroom is just a fraction of what we are learning here.

#### From a Focus Group of Transfer Students:

- Student 1: Having a balanced life—something I am really in need of right now. I want to go out and play, eat, and sleep and work. I am a person outside of this school, outside of this job. And I want all of these places to understand this. I play chess, play drums, write, and read. There are lots of things I want to be able to do to have a well-rounded life.
- Student 2: Yeah, I think most of us feel that way. We are pretty much concentrating on our schoolwork and we have to go to feed ourselves. But here, it kind of feels like the weight of the world is on our shoulders, and I would like just one day to go out and screw off and not do anything, sleep in until noon. I know that day will come eventually.
- Student 3: Same thing—having a balanced life, not just doing the studies but doing the things you enjoy.

One student said this: "I study an astronomical amount of time. But I began to realize that I want more from my life than that. It is important for me to be able to go out and take a bike ride when it is nice out, and to go out to see my grandparents. I think my values shifted a little last year when my grandmother died. I realized that sometimes you have to seize the moment, and do what is more important than school."

### ...about Reading?

About two out of every five UW SOUL students say that the amount and kind of reading required by their UW courses is what makes courses challenging and many of those students report that they are required to do more reading and to read at a higher level than they were asked to do at their previous institutions. This difference is stronger for freshman than it is for transfer students, but transfer students report it as well.

"The amounts of reading are exceptionally high. For instance, in my German class, we had to buy about 7 books, a thick reader, and there exists a large number of items on reserve, as well. The amount of reading due for each class is, I feel, humanly impossible."

### ...about Writing?

Students say that the writing they find the most challenging at the UW in their first year is argumentative writing and writing in the disciplines. Departments at the UW represent disciplines, and how departments go about creating knowledge and communicating what they know differs from one to the other. Therefore, although rules of grammar and punctuation largely stay the same across the disciplines, what counts as "good writing" varies from one discipline to another, which surprises many new students. A few of the things that vary include:

- The purposes for writing
- What counts as a "thesis" or statement of purpose, how it is stated, and where it is placed
- What is "arguable" in the discipline and what is not
- The preferred organizational patterns or formats for each discipline
- What counts as evidence in the discipline, how it is incorporated into the argument, and how it is cited

Four students' quotations illustrate how first year students experienced this change in writing:

- "In Environment 201, my writing style didn't work. There was some difference there that I couldn't figure out."
- "For political science, I pretty much had no clue what I was doing, and my grade on the paper reflected that."
- "All of a sudden in philosophy, here are a whole new set of rules that pertain only to philosophy papers."
- "The most difficult writing I've done is probably the history papers I'm writing now,
  just because I don't know how to write a history paper. I know how to analyze
  books and novels, but I don't know how to include the historical context and other
  people's opinion."

## ...about Critical Thinking?

In interviews, UW SOUL students (and professors) tell us that critical thinking, like writing, also varies from discipline to discipline. For example, they describe differences in:

- The purposes for critical thinking (for example, how best to manipulate and shape objects in the world in Engineering and Art, how to challenge explanations in Sociology and English)
- What they have to do to engage with and understand content
- Kinds of questions they need to ask of the subject matter and where those questions focus
- Question-asking methods they are supposed to use
- How and whether results of the thinking process are produced

How much critical thinking in one discipline differs from critical thinking in another discipline depends largely on how similar the methods and content of the two disciplines are. Sociology and Psychology, for example, will be more similar than Sociology and Drama.

Here are three students' comments about the critical thinking they have done at the UW and the words of Barbara Wakimoto, a Professor in Biology:

"I just don't walk around thinking in Darwinian logic. It is a mode you have to get into. It's the kind of thinking that says we are animals. Staying in that train of thought is challenging."

"My critical thinking is learning to use three-dimensionality and convert it into twodimensionality. I need to understand the laws of perspective and optical illusion."

"There's critical thinking for English and for a more mathematical type of problem, a lab."

### BARBARA WAKIMOTO, Associate Chair, UW Biology Department From an Interview on Thinking in Biology

"I am a biologist/zoologist, and I am sure that when you interview faculty from different disciplines, there will be different ideas about creativity, synthesis and critical thinking. In all sciences, critical thinking is very very important. We view it as the ability to take information, and evaluate it in a way that you ask if it is correct, if it is logical, and if you can incorporate it in some sort of larger framework for understanding. So we absolutely use critical thinking in our courses since this is how we do science. If you ask us what our end goal is for our students it is to 'think like scientists'. In essence this really means embracing an approach of critical thinking. It is all wrapped up in a package of critical thinking and includes, perhaps most importantly, taking new observations and synthesizing them in a framework of what you know to build new ideas."

Turning Points: "I Let Go of All of My Fears..."

"I had a mystical experience in my ballet class. I felt comfortable with the movement enough to play with the music. I let go of all my fears of falling, messing up a step, and being watched. Then, I just felt the music of the cello through my entire body."

### ...about Math & QR?

Sometimes disciplines at the UW are different from versions students previously experienced. For example, students report that math and quantitative reasoning (QR) are quite different at the UW than they were in students' high school and community college classes. Three differences:

• Students say that in high school they are given equations to solve. In contrast, Mathematics at the UW asks students to read a word problem, figure out what it is asking them to do, understand how to translate that into equations, solve the equations, and then interpret the solution in the language of the word problem.

"Here it has been more problem solving where most of the problems are in word form, where in high school it was mechanical—just numbers. Here they teach you the concept behind all the mathematics, whereas in high school, they just kind of told you what it was. Now I am starting to learn the concepts behind things, and it is starting to make sense."

• UW SOUL students tell us that in high school, when they were tested in their math classes, they were asked to solve equations like those they had been doing as homework. At the UW, students say that they often are asked to use the math they have been doing in class to take the next step and solve a related but new problem. Students report a similar change between high school Chemistry and Physics and UW Chemistry and Physics courses.

"In high school, in an examination situation, we didn't have to do the kind of leap into problems we had never seen before."

• Transfer students and UW freshmen report that at their previous institutions, quantitative reasoning often was confined to math courses. At the UW, quantitative reasoning is part of many disciplines, including the social sciences, as well as the physical sciences and engineering courses.

"The classes here ask us to apply information as opposed to simply regurgitate formulas and facts. It is more an information-processing based learning, as opposed to information collecting. I am still figuring this out. No one ever said that to me. If anything, I was led to believe that science classes here would be more fill-in-the blank and less think-for-yourself."

Don Marshall, a UW Professor in Mathematics describes thinking in math in the box on the next page.

#### DON MARSHALL, UW Mathematics Professor

From an Interview on Thinking in Mathematics

"The kind of behavior or thought process that we would like to develop in our students and do develop in our students generally involves the following:

You take a problem, which has been described maybe in terms of physical qualities. And out of that problem you extract what is called a mathematical problem—a very precisely defined mathematical problem. Then you use some mathematical tools, which hopefully you are learning as part of the course, to solve that mathematical problem. Then you analyze the solution and convert it back into statements about the original physical problem.

So a thought process is going on in there, and it is a process of trying to convert the problem stated in English words into something precisely-stated mathematically. There is a certain type of thinking involved in trying to do that, and that includes making leaps of understanding about what is meant by the definitions of various words, what the author is really intending, picturing, if you like, what is really going on in the problem, and then being able to figure out how to convert that into a mathematical statement.

The thought process for solving a mathematical problem is different from the process of converting the problem into mathematics or converting the mathematics back into the solution of the original problem. Both are important types of thinking."

### Turning Points: Undergraduate Research

"My undergraduate research experience with a faculty member in Mechanical Engineering opened a lot of different doors for me. A lot of things have come out of my working with that one professor. For one thing, I am probably working on this internship because of that research position. I also was able to obtain a TA position in Engineering because of that, and I got a Mary Gates Research Training Grant for that. My best friend had taken a class from the professor and worked for him for about a year, and he kept telling me what he was doing and the research interested me. I decided that I kind of wanted to do research there, because my best friend was there. The professor is very open to having new students work for him, so he let me in. It was really helpful to gain real world experience while still being in school. I was assigned one project, and there were no limits on it, similar to my senior-level Chemical Engineering class. I had free reign to decide where I wanted to take the project."

## ...about Asking Instructors Questions?

Students report having a hard time asking questions in class and often, even asking questions outside class. This is true for both freshmen and transfer students. As two students put it:

"My greatest challenge was learning to communicate with professors, especially in settings of 30 or more students. This is an obstacle which I have to try to overcome with each new professor, each new personality."

"In really big lecture halls, sometimes the professor almost doesn't seem like a real person, and they seem unapproachable. It is like the feeling you get when you meet a celebrity—like you shouldn't be talking to them because they are in one space and you are in another."

Why do students think they should ask questions? One reason is that asking questions helps them learn more, which a UW SOUL student described in the "Turning Points" box on "Study Groups and Professors." Another reason is that asking questions, especially in office hours, helps students become more closely connected with faculty members, who then often become mentors or research advisors.

#### Turning Points: Learning to Lead

"The second year was great because I started training and racing with the UW Cycling team (Husky Racing). Having never been a collegiate athlete [when I went to college the first time], I felt like it was something I missed out on and would never get to experience. I was not surprised to find the amazing sense of pride I felt (and still feel) every time I roll to the start line, wearing purple and gold with my teammates.

I think that this year managing the UW Cycling team has been a turning point. Doing that this year, I have learned an incredible amount of patience, and I didn't realize when I took on the role that I would be in a leadership position where people on the team would actually look to me for leadership. I found myself in the role of being a coach and I felt highly unqualified at first. It was a lot more than just taking care of the logistics of racing. I think that putting myself in that position was interesting, because I have always been in the other positions—looking to someone else for their advice, their confidence and their leadership. I think this is the same situation as in India—where you can't wait for the experts to come and tell you what to do. You have to seize the moment and do what needs to be done."

## What Advice Might You Give to New Students?

"I would tell students coming from the community college to go to the four-year school and hang out for a while, talk to students, and see what is going on. Don't depend on brochures that are printed to bring students in. There really are two different worlds: the college from the eyes of the administrators and the college from the eyes of the students. Go talk to the students who are walking the walk. I did everything I could, but I was still surprised by the difference between the four-year and the two-year school."

Beginning in their second quarter, we asked UW SOUL participants what advice they would give students coming into the UW from their own high schools and community colleges that they thought those students might not know. The answers that they gave most frequently over the four years were:

- Take responsibility for yourself and your own learning.
- Take advantage of the options offered here, including opportunities on/off campus, resources, and the great variety of classes here. These are valuable in themselves and great ways to meet people.
- "Think about your major."
- Get involved in organizations, academically and/or socially.

### Turning Points: The Global Classroom

"Every class and every professor has given me something new and valuable at the UW, but if I had to pick out one class, it would be the Global Classroom project that I was fortunate to participate in during the 2002 school year. It was unlike any other project. The concept was to create learning opportunities for faculty and students across international boundaries by collaborating with the School of Arts and Design at Tsinghua University on creating posters on a central theme, water awareness. From this project, I really learned what learning through exploration meant. The students had to make a lot of the decisions along the way. From that point on, I began to learn to see many things within context rather than just accepting them on a surface understanding. The global project was also the first time that I really worked in groups. I learned to appreciate others' thoughts and working together. Overall, it was a project that really changed my perception of learning and school."

### What Do You Regret?

We asked graduating seniors if they had any significant regrets about the way they had done college and, if so, what those regrets were. Nearly one third had no regrets. There were few clear trends in the kinds of regrets that the remaining two-thirds of the UW SOUL participants described. Three that recurred were:

- About 16% wished they had been more involved in academic, extracurricular and social activities, including internships, study abroad programs, clubs, athletics, and other UW-related experiences, often as a means for meeting a wider variety of people. This comment echoes advice UW SOUL participants would give new students (see previous page).
- About 8% said that they wished they had started out with a different direction in mind, because they felt they had wasted time.
- About 6% said that they wished they had been more academically motivated and self-disciplined about their schoolwork right from the start.

As one student put it: "I regret not getting more involved in a lot of different ways. I feel that if I had gotten involved in some of the UW government activities, I would have enjoyed that. I think I should have gotten involved in some of the intramural activities. I think I would feel like I had really experienced college if I had done more of these things. I feel like there is so much to do here, and I didn't experience much of it."

### Turning Points: Leaving and Coming Back

"In my junior year—I felt I had no friends and no direction, and I was not enjoying school. I had a lot of friends in high school, had direction, and loved school, so I couldn't figure out what I was doing wrong. I tried all different kinds of things. But I felt trapped by the scientific limitations on the degree I was pursuing, and felt I didn't have a chance to be creative. It was really tough that last quarter before I left, so I decided that something more than my diet and my roommates had to change. I enrolled at another state university. I needed a different university with a whole different set of assumptions.

And it was true. Everything was different. The students, the teachers, the classes, even my apartment. I thought I was going to major in Communication. I found I had strong skills in communication—working in groups, creativity—through all these tests I took at the UW. Two or three weeks into it, I realized that Communication was not for me. I realized that what I wanted to do was get a degree in a natural resource field and communicate well in it, not try to get a degree in Communication and then

continued...

weasel my way into a natural resource area. So four weeks into my first quarter at the other university, I hated my one Communication class. I made up my mind to come back to the UW, but it was at the end of winter, and logistically at that point to move back to Seattle, it would have been really difficult. I thought my parents would flip their lid if I didn't take classes spring quarter, so I took 10 credits in senior level religion classes. I decided to take something fun, and I had had a religion class that was fabulous. I took a class on Daoism and on the Hebrew Bible. They were wonderful classes, and I felt like I had a break and learned some of the stuff I wanted to learn without having to relate it to my degree. Then spring quarter I started organizing to come back, and in the fall of 2002, I came back. I re-enrolled in the major I was in when I left. What I wanted to do never really changed.

There were two turning points there—the decision to leave the UW and the decision to come back. I felt that I was able to take hold of things and make decisions to get out of a bad situation at both times. It felt good to make a decision to change things in a big way. It helped me to have some physical and emotional distance from the situation I was in, so I could look back on it and say, 'Is this what I want? What can I change and what will remain the same?' I feel that I was able to look at it and see both the positives and the negatives once I had some distance. It is definitely better since I have been back.

Also, how I've looked at things has changed. Now I've realized that college is all in a very short time line, that it is not for forever. I have been able to let things go that bother me but that I can't do anything about. I feel that the situation may not have changed that much, but that I've changed. I've changed how I look at everything. I realize that not everything is exactly what I want. I can't do everything.

It also gave me some perspective on things I had taken for granted at the UW—like things being online and you can access them at any time, things being organized. Some of the stuff in other places is not quite as well organized. And I really could see how the weather, the size of the city—things that you think might be trivial when you come out of high school—these little things can have a huge influence on your experience."

### The List of Questions

As you move through your first year at the University of Washington, think about how *you* might answer these questions from time to time.

### YOU AS A LEARNER AT THE UW

- -What helps your learning?
- -What hinders your learning?
- -How hard is the UW really?
- -What makes the UW challenging?

### YOUR UW EDUCATION

- -What does it mean to be educated?
- -What are you learning?
- -What do you need to know about reading?
- -What do you need to know about writing?
- -What do you need to know about critical thinking?
- -What do you need to know about math and quantitative reasoning?
- -What do you need to know about asking instructors questions?
- -What's your major?

### REFLECTIONS ON YOUR UW EXPERIENCE

- -What do you need to know about balance?
- -What advice might you give new students?
- -What do you regret?
- -Where do you fit in the UW community?
- -What are your own turning points and how did they change you?

## Once more, welcome, and all the best to you as you begin this important journey.

UW SOUL

Office of Educational Assessment

FIRST YEAR PROGRAMS

Office of Undergraduate Education