**Wyoming State Engineer’s Office**

Administering Wyoming’s Water Resources

---

**Supreme Court Decrees**

**North Platte River Compact, 1950** –


**Supreme Court Decrees**

North Platte River, 1945 – Modified 2001

- Supreme Court ruled that Wyoming can annually irrigate up to 226,000 acres above Guernsey Reservoir. Natural flow is split below Whalen Dam: 25% to Wyoming and 75% to Nebraska.

- Laramee River, 1922, 1936 & 1957 – Allows Colorado to divert up to 39,750 acre feet.
“Specify Everything. When something goes wrong it’s always the engineers fault!”
“After everything that is done a technical report must be written telling about what exactly has
been done.”
“Western prepared me and because of that I has prepared for UW.”
“There can be many hang-ups on the job. Everything has to be checked with the government and
other agencies.”
“The best and worst part of the job is always being needed.”
“As long as you’re showing up your doing good.”
Take more English in college—it will help with the reports that you have to make all the time
for all the projects.”
“Expect the unexpected.”
“The only time you get to leave your desk is for onsite calls to fix a problem that you missed.”
Show up to class, pay attention, and do your homework.”
“A model is just a best guess, there never right. They are close as we can get.”
“As far as being a transfer student from WWCC, I felt I had a jump on everyone else.”
“Engineering is Global.”
“Engineering is very broad and is needed much.”
“Why engineering? There is excellent employment!”
“There is a shortage of people in Science Technological Engineering Mathematics (STEM).”
“The difference between a job and what the average engineer does is that it’s not a nine-to-five work setting; you have to have passion for what you are doing, because you will be doing a lot of it. You have a lot of professional responsibility, but it is very fun to do.”
“Take as much ES (Engineering Science) classes as possible.”
“Engineering is a Lifelong endeavor.”
“To be a good Civil Engineer you must be able to predict future problems and solutions.”
“Get an internship for the practical knowledge that you will need to get the job you want for the rest of your life.”
“Do not study to become an expert in one field.”
“Look for jobs in many different parts of engineering until you find the job that you want.”
“Why would you want to become an engineer? There is a shortage of engineers in the world today, it has excellent employment opportunities, and it is a great platform to launch a career.”
“Employers look for engineering grads because of their problem solving skills.”
“Nuclear Energy should be our source of energy.”
“Engineering is the liberal arts degree of the 21st century.”
Muhammad Perry,
University of Wyoming

“Our facility is so advanced that many companies turn to us for analysis.”
“Being a part of a new process is very exciting.”
“It’s like drinking from a fire hydrant—most of it just goes past your ears.”
“With time, you will fit to what you do.”
“Politics will over ride a good engineering decision every time.”
“L.C. Bishop made most of the compacts.”
“Always opening text books and always learning.”
“Every day there is a challenge and a lot of different things to do.”
“A lot of opportunity in all types of Engineering.”
“Study groups can shorten the learning curve.”
“In the west water is distributed in a first come first serve bases.”
“After you graduate from college, you always keep learning.”
“One of the plus of being an engineer is there is always a new challenge.”
“Engineers do a lot more than just engineer: they also do accounting, public speaking and a lot more.”
“Develop your people skills. You will be interacting with people and it is necessary to keep in mind mutual interest. Self interest gets nothing done.”
“Mess up and it comes back to haunt you.”
“There are always issues on construction projects.”
“Remember the importance of compromise.”
“Wyoming was the first state to register engineers.”
“Get exposure to other fields.”
“To be an engineer it requires a person to have a lot of different attributes.”
“People skills are extremely important.”
“A masters degree raises pay and is easily obtained right after your Bachelors degree rather than breaking and coming back.”
“Compromising is a very important part of engineering.”
“There is no one right answer, there are many be as open minded as possible.”
“An engineer degree is basically an education to solve problems.”
“Engineering always has something else going on.”
“We (engineers) are truly educated to solve problems.”
“Water is such a precious commodity, it is truly Wyoming’s gold.”
“Stick your nose in everything possible.”
“Theory versus Practicality—’it fit in AutoCAD’. Looking at the rest of the surroundings to make sure the design works is the difference between good and excellent engineers.”
“Our designs will affect the lives of many people.”
“Leave your desk as much as possible.”
“The best thing an engineer can do is balance theory with practicality.”
“The go-to guy is the engineer when people have a question they can’t answer.”
“Well respected engineers get in there and actually see the process through and take the extra step to ensure the quality and take helpful advice from experienced people working on the equipment you design.”
“Be as open minded as possible and make sure to listen to others.”
“Leave your desk as much as possible and put your nose into everything that you can—80 to 90% of an engineer’s time is spent behind a desk. It will help you be a better engineer.”
“I am the guy who will keep your systems running.”
“Talk to the professors; get help.”
“Mechanical Engineers are starting to grow. Many people are starting to go into it.”
“Civil Engineering departments have a lot to do with water.”
“Don’t be afraid to ask for help.”
“Transferring students have a harder time than those who don’t.”

John Haynes,
Assistant Dean
Colorado State University

“The biggest mistake is not asking for help.”
“Don’t be afraid to ask questions.”
“Always pay attention to detail, and make sure to stay ahead of the curve—don’t procrastinate.”
“Be happy with what you do”
“Be organized—use spread sheets of deadlines.”
“Always be looking for better opportunities.”
“Stay ahead of the Curve by taking an assortment of classes”
“Keep your eyes open all the time, jobs can come and go.”
“Work at the negotiation skills, throughout all your lives; you have to sell your idea.”
“Do not rush out of school—take your time.”
“Companies look at your resume and try to find where you have acquired leadership skills.”
“To be successful in college you must be organized.”
“Engineers have happy satisfying jobs.
“Pay attention to details.”
“Engineering is not a 9-5 Job; it may require more working hours.”
“One of the biggest things that helped me was to be organized.”
“Don’t be afraid to ask questions”
“Be well rounded, and make sure you can build what you design.”
“Don’t be worried if you don’t know all the stuff.”
“Keep with it, it’s worth it in the long run, I love my job.”
“Learn to do budgets it will save a lot of headache”
“Look at projects from the perspective of the whole, determine requirements, allocate them to sub systems, determine how to prove that requirements have been met”
“Pay attention to the details: details are very important.”
“Get as much internship experience as possible. Companies want to hire someone with at least a little experience.”
“Take plenty of English classes you will be using English more than you think.”
“Engineers take risks every day when they are designed a certain machine that might cost millions or contact a building that may serve thousands of people each day.”
Allison Rutter  
Rocky Mountain Institute

“I wish I had paid more attention in economics.”
“Push yourself emotionally, physically, and mentally.”
“Learn it well enough to explain it.”

Coriena Chan  
Rocky Mountain Institute

“Seek out opportunities to interact with others.”
“Get more sleep…be more alert.”

John Simpson  
Rocky Mountain Institute

“Take your time in school, don’t be in a hurry to get out and get a job.”
“Maintain a positive mental attitude.”
“Don’t bull your way through life, find ritual getaways.”
“Have fun while you’re learning.”
“Engineering is more about time management.”
“If you can’t explain it to someone else in simple terms, then you don’t understand it well enough.”
“Have fun while you’re in college”
“Control your mental, emotional, and physical energy”
“It’s not enough to know just about your field.”
“Make a design yours but use other people’s ideas.”
“Do not procrastinate very much—only enough that you can have some fun.”
“Think of ways to make the design as different as possible but still functional.”
“Keep your performance up no matter what is happening to you.”
“Time management can be the best thing to do both at school and at work.”
“Public speaking is a very good class to have for the fact that you will have to get up in front of people and telling them the progress on their project.”
“Try and get a more broad platform not a certain focus”
“Think like Leonardo Davinci.”
“Be an all around engineer, look at all aspects.”
“Pay attention to business and other aspects of your degree.”
You must learn how to communicate with people not in the same field as you.”

PROFESSOR
Craig Thompson

STUDENTS
Alina Fatima
Biruck Tesenfu
Brandon Lucas
Brock Fiedler
Caleb Simnitt
Jared Radosevich
Joe Giralt
Kody Pivik
Markus Ballinger
Nickolas James
Robel Sintayehu
Rodney Dollar
Taylor McCort
Thomas Bekele
Tyler Hamilton
Weston Lintz
Dear Future Engineers:

July 31, 2008

for ES 1069: Orientation to Engineering. Check out the enclosed schedule and discover when it is. We will have an orientation and discovery period. We will also hold additional sessions for engineering applicants to help them understand the requirements for enrollment. We are committed to helping you transition into our program with ease.

Your Gear: To prepare for the field course, please note carefully the course and times. This is a block course, meaning the entire course takes place in one week. Be sure to bring appropriate clothing and footwear for outdoor activities. We will also be hosting several social events and outdoor activities. Be sure to bring a camera and a notebook. We will have a list of recommended equipment available upon request.

Money: We try to keep expenses to a minimum. We will be buying food and pop and staying in the dorms. Please bring $25 ($10 each) and any personal needs. For the night out, we will be buying food and pop and staying in a local restaurant. Please bring $25 ($10 each) and any personal needs.

Academics: Read the attached course outline. This is an informal field course. You will need to bring a notebook and a small bag for outdoor activities. We will be having a final exam on the last day of the course. We will be providing a study guide for those interested. We will also be providing a two-page section in the booklets we will be printing.

Drink energy! 2. Preparatory to the initial meeting, you can prepare by downloading the final exam. If you think you need it, you can bring it with you. We will be meeting 5 PM or order it.

Best wishes,

[Signature]

PS: A small thank-you to all who helped with the preparation of this packet.
WATER UNIT CONVERSIONS

1 cubic foot = 7.48 gallons = 62.4 lbs
1 gallon = 8.3 pounds
1 litre = 0.264 gallon
1 acre-foot = 43,560 cubic feet
1 acre"foot/day = 325,851 gallons
1 second"foot/day = 1,984 acre"foot/day
1 cubic foot/second = 1,728 cubic feet/day
1 cubic foot/second" = 448.8 gallons/day
1 gallon/second" = 128.47 cubic feet/day
1 gallon/minute" = 0.0695 cubic feet/day
1 million gallons = 3,618 acre"foot"

Pocket Water Facts

sponsored by:
The State of Wyoming Water Planning Team
Visit the Water Plan Web site
http://waterplan.state.wy.us/
Wyoming Water Development Commission
@ 307-777-7026
http://waterplan.state.wy.us/
Wyoming State Engineer's Office
@ 307-777-7130
http://waterplan.state.wy.us/
Water Resources Data System
@ 307-766-6651
http://www.wrds.unr.edu/

Agility to innovate,
Strength to deliver
Ball Aerospace & Technologies Corp.
www.ballcom