Mark attendance at ignite.byu.edu/cbe400/lectures

Who am I…

- I speak without a mouth and hear without ears. I have no body, but I come alive with sound.
- I can travel all around the world while staying in a corner?
- I am full of cities but have no houses. I have mountains, but no trees. I have water, but no fish.
- The more you take the more you leave behind.
- I occur once in a minute, twice in a moment, but never in a thousand years?

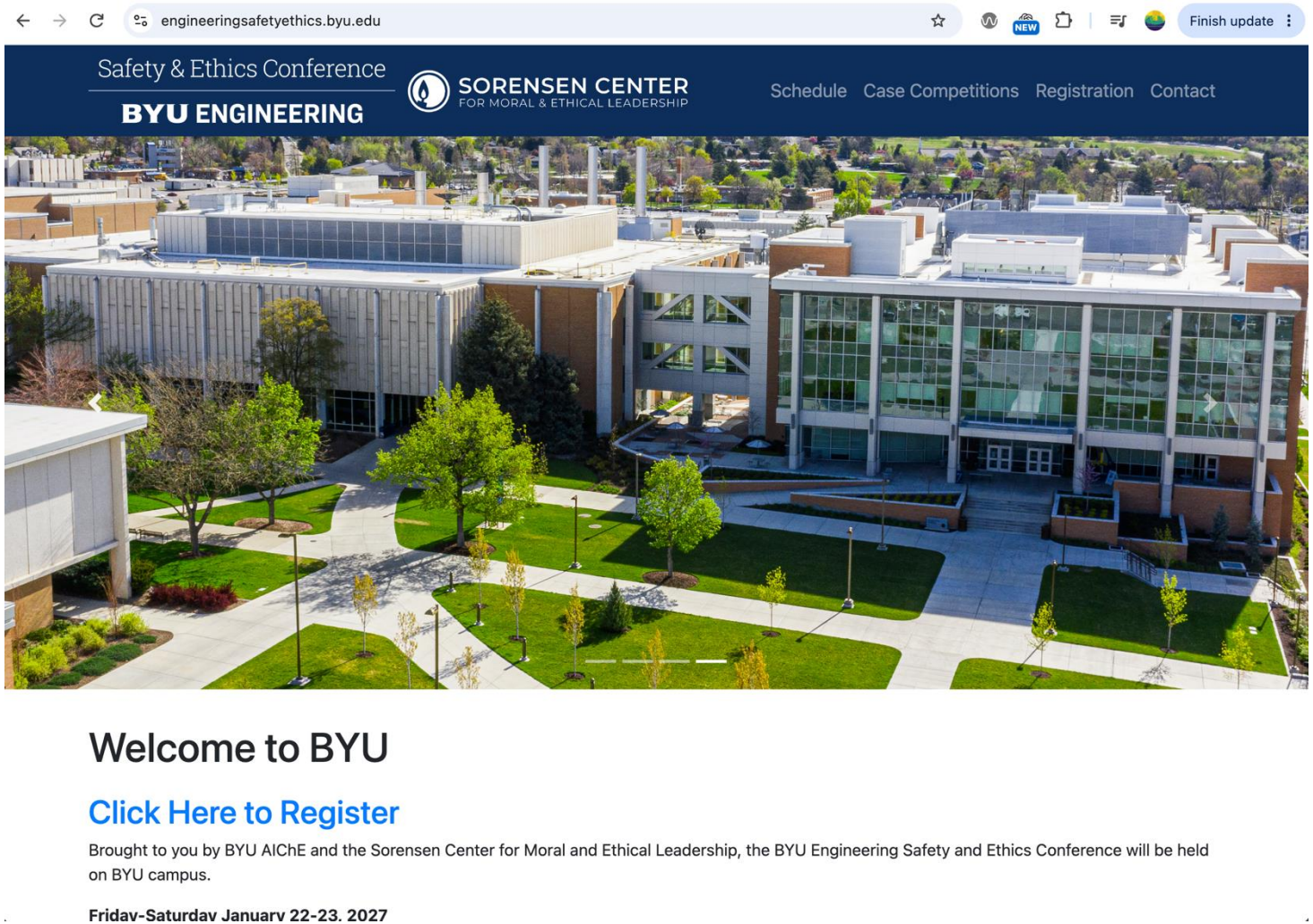
Show and Tell

Justin William

Dec 2: Ben Richards, Ben M, Isaac



Safety and Ethics Conference



Https://engineeringsafetyethics.byu.edu

Friday, Saturday January 22-23, 2027

- **Keynote**
- **Workshops**
- **Networking**
- **Case Competition**
- **Cash Prizes**
- **3 meals**

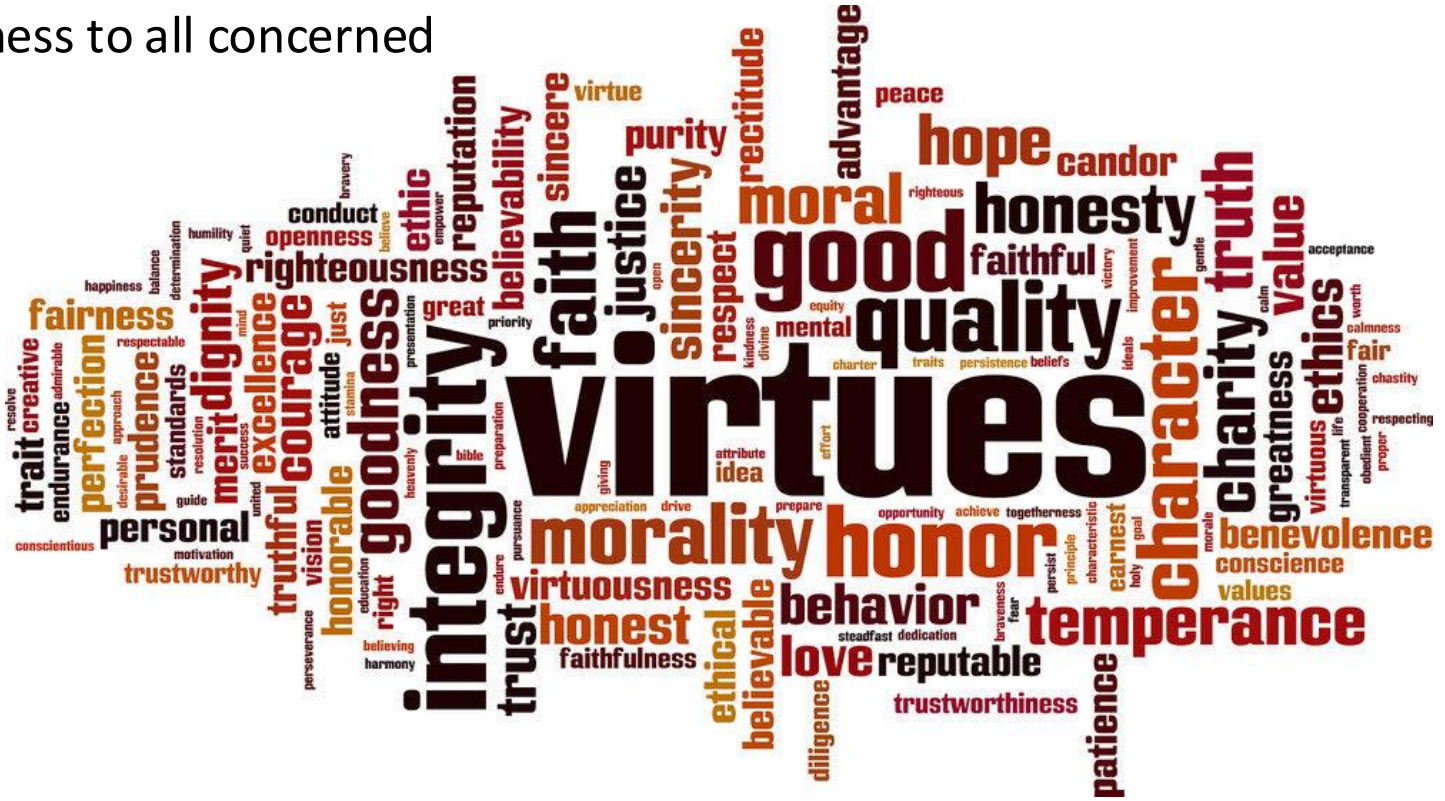
Evaluation Checklist

- ✓ Is the solution logical?
- ✓ Does the proposed solution solve the real problem?
- ✓ Is the problem permanently solved, or is this a patchwork solution?
- ✓ Are all the criteria and constraints satisfied?
- ✓ Does the solution have the desired impact?
- ✓ Is the solution economically, environmentally, politically, and ethically responsible and safe?
- ✓ Have you used the different types of Socratic questions—for example, have you challenged the information and assumptions provided?
- ✓ Have all the consequences of the solution been examined—for example, does it cause other, more serious problems?
- ✓ Have you argued both sides—the positive and the negative?
- ✓ Has the solution accomplished all it could?
- ✓ Is the solution blunder-free?
- ✓ Have you checked the procedure and logic of the arguments?

Ethical Evaluation

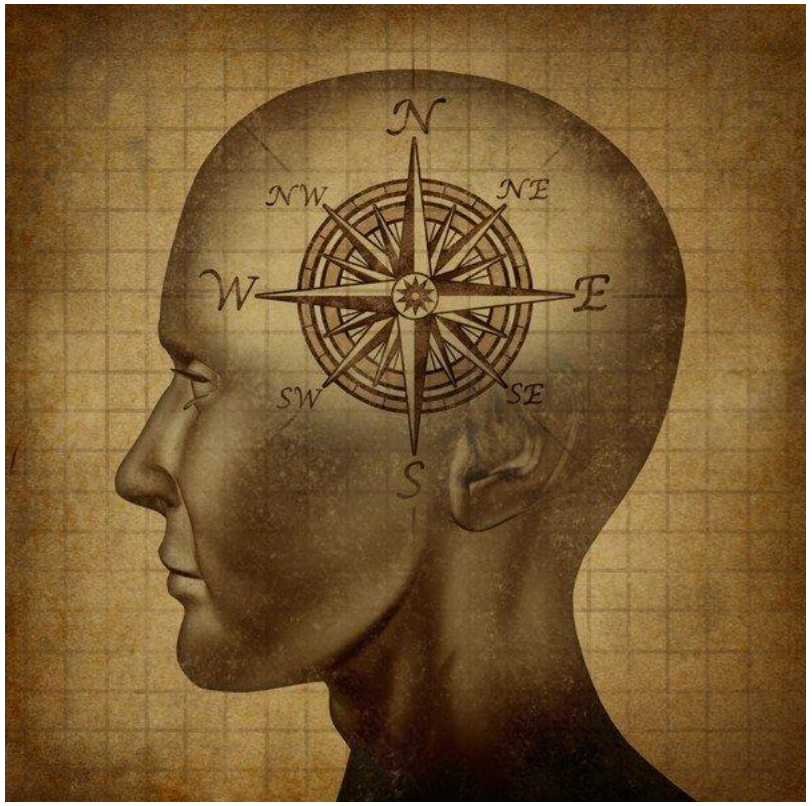
Four Classical Virtues

- **Prudence** thinking about a moral problem clearly and completely
- **Temperance** avoid being either rash or suppressing emotions
- **Fortitude** not moving blindly away from something we don't like
- **Justice** having the will to act in truth on the way things actually are and to act with fairness to all concerned



Ethics Checklist

- **Is it legal?** Will I be violating the law or company policy?
- **Is it balanced?** Is it fair to all in both the short term and long term? Does it promote win/win relationships?
- **How will it make me feel about myself?** Will it make me proud? Would I feel good if my decision were published in the newspaper? Would I feel good if my family knew about it?



The Five Ps

- **Purpose** — Is your objective one you can stand behind? Does it hold up when you look at yourself in the mirror?
  Virtue: Prudence
- **Pride** — Can you take pride in your solution? Have you avoided both false pride and self-doubt?
  Virtue: Justice
- **Patience** — Have you taken time to think through the solution's consequences?
  Virtue: Temperance
- **Persistence** — Have you stayed committed without giving up too soon on a fair, balanced solution?
  Virtues: Temperance and Fortitude
- **Perspective** — Does the solution fit your ideals and beliefs—and the bigger picture?
  Virtues: Prudence and Justice

Case Study: Holiday Gift

Henry is in a position to influence the selection of suppliers for the large volume of equipment that his firm purchases each year. At holiday time, he usually receives small tokens from several salespeople, ranging from inexpensive ballpoint pens to a bottle of liquor. This year, however, one salesperson sent an expensive briefcase stamped with Henry's initials. This gift is very much out of the ordinary.



Case Study: Bidding

Steve is a design engineer for a large chemical company. There are two competitive pieces of equipment that are sold to do a job required by the process he is working on. Equipment from ABC Inc. is widely advertised and sold, but Steve has heard through the grapevine from his competitor's plant that ABC's equipment tends to break down unexpectedly and often. However, there is no way for him to document this information. XYZ Corporation makes equipment that will do the same job but is much more expensive. Steve knows from his own experience that this equipment is quite reliable. It is company policy to obtain competitive bids, and in such a situation ABC would certainly win. Steve deliberately rigs the specifications by inserting unnecessary qualifications that only the XYZ equipment will meet.