

GE 8074  
GE 6075

## Professional Ethics in Engineering

1. What is Service learning? Why Service learning is important? Explain the characteristics of Service learning. Discuss its role in caring and sharing in society with suitable examples.

Service learning:

\* Service to humanity is one of the best way of expressing ones love and affection.

\* If one attempt to learn to do service and in that process if it is beneficial to the people and is called as service learning.

Service learning Importance:

\* Service learning tells that one has moral responsibility to increase the desirable effects and to decrease the harmful effects.

\* Any service should increases the desirable result.

\* A national study of Learn and Serve America programs suggests that effective service-learning programs improve grades, increase attendance in school, and develop students' personal and social responsibilities.

\* A growing body of research recognizes service-learning as an effective strategy to help students by  
 ⇒ promoting learning through active participation in service experience.

⇒ Providing structured time for students to reflect by thinking, discussing and writing about their service experience.

⇒ providing an opportunity for students to use skills and knowledge in real-life situations.

⇒ Extending learning beyond the classroom and into the community; and fostering a sense of caring of others.

Characteristics of service-learning:

⇒ Students are able to identify the most important issues within a real-world situation through critical thinking.

⇒ promotes deeper learning; there are no "right answers" in the back of the book.

⇒ Generate emotional consequences, which challenge values and ideas.

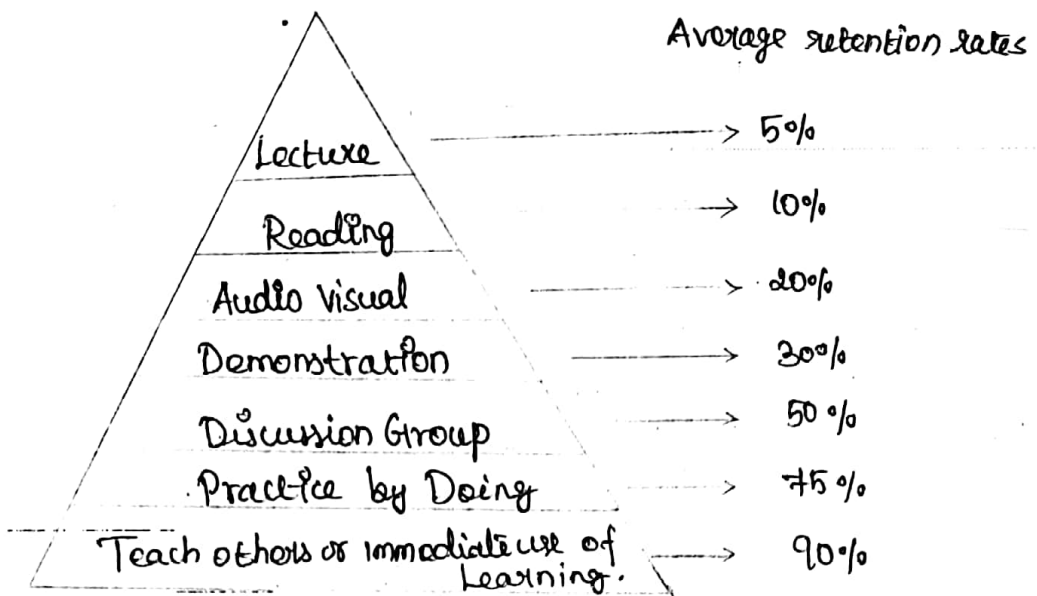
⇒ Supports social, emotional and cognitive learning and development.

Added Benefits: In other words, service-learning projects are like "mini internships".

⇒ They allow you to gain experience and make contacts while learning and earning a grade.

⇒ Many students have found real internships and summer jobs through contacts they created during 81 projects.

⇒ It is also a great source of reference for a future job search.



The learning pyramid

National Teaching Laboratories, Bethel, Maine

Role in caring and sharing in society with example:

Engineering Education:

⇒ Many engineering educators see service-learning as the solution to several prevalent problems in engineering education today.

⇒ In the past, engineering curriculum has fluctuated between emphasizing engineering science to focusing more on practical aspects of engineering.

⇒ Today, many engineering educators are concerned their students do not receive enough practical knowledge of engineering and its context.

⇒ Some speculate that adding context to engineering help to motivate engineering students' studies and thus improve retention and diversity in engineering schools.

⇒ Others feel that the teaching styles do not match the learning style of engineering students.

⇒ Many engineering faculty members believe the educational solution lies in taking a more constructivist approach, where students construct knowledge and connections between nodes of knowledge as opposed to passively absorbing knowledge.

⇒ Educators see service-learning as a way to both implement a constructivism in engineering education as well as match the teaching styles to the learning styles of typical engineering students.

⇒ As a result, many engineering schools have begun to integrate service-learning into their curricula and there is now a journal dedicated to service learning in engineering.

2. What is integrity? How integrity plays a major factor in work ethics? Discuss with suitable examples.

Integrity:

⇒ Integrity is the quality of being honest and having strong moral principles, moral uprightness.

⇒ It is generally a personal choice to uphold oneself to consistently moral and ethical standards.

⇒ In ethics, integrity is regarded by many people as the honesty and truthfulness or accuracy of one's actions.

⇒ One can describe a person as having ethical integrity to the extent that the individual's actions, beliefs, methods measures and principles all derive from a single core group of values.

⇒ Integrity is the bridge between responsibility in private and professional life.

⇒ A good test of integrity is how the individual behave when nobody around.

⇒ A person with integrity maintains poise composure at all situations.

Integrity in work ethics.

⇒ Integrity stretches to all aspects of an employee's jobs.

⇒ An employee with integrity fosters trusting relationships with clients, co-workers and supervisors.

⇒ Co-workers value the employee's ability to give honest feedback.

⇒ Clients trust the employee's advice.

⇒ Supervisors rely on the employee's high moral standards, trusting him not to steal from the company or create problems.

How to maintain integrity in work place examples:

⇒ Don't let teammates take the fall. Work together as a team. This builds trust and shows integrity:

⇒ Never steal supplies from the workplace.

⇒ If you find yourself in a conflict of interest, get out of it as soon as possible.

⇒ Don't accept praise or acclaim for someone else's work. That includes stealing someone's idea or pretending to have worked on a successful project.

⇒ When making a business deal, make sure everything is on the table and nothing was left out.

⇒ If your company asks you to do something against your personal code of conduct, refuse. If it means losing a good paying job, so be it. Find a more ethical company to work for.

3. Define Empathy. State and explain the elements, Benefits of empathy and compare empathy with sympathy. Discuss its role in the spiritual development for excellence in an organization with suitable examples.

Empathy :

⇒ Empathy means putting self in a position of someone else and thinking as the latter and reasoning suitable action.

⇒ It generates understanding, loyalty, peace of mind and higher productivity.

Elements :

⇒ 1) The ability to recognize emotions in oneself and others via different communicative cues such as facial expressions, speech, or behavior

⇒ 2) A cognitive components, also referred to as perspective taking or theory of mind, describing the competency to take over the perspective of another person, though maintaining the essential distinction between self and other.

⇒ 3) An affective component, that is sharing of emotional states with others or the ability to experience similar emotions as others.

## Empathy Vs Sympathy

⇒ Empathy is distinct from sympathy, pity and emotional contagion.

⇒ Sympathy actually means "I understand how you feel".

⇒ It is one step lower than empathy.

⇒ Pity is feeling that another is in trouble and in need of help as they cannot fix their problems themselves, often described as "feeling sorry" for someone.

⇒ Emotional contagion is when a person imitatively "catches" the emotions that others are showing without necessarily recognizing this is happening.

### Benefits:

⇒ Builds trust and respect.

⇒ Reduces tensions.

⇒ Creates a safe environment

⇒ Reduces stress and tension

⇒ builds teamwork

⇒ gains the customer's cooperation.

⇒ Tells customer "you are important" and I am not judging you.



Role in spiritual development for excellence in an organization:

⇒ There are 7 core principles to develop spirituality in organization.

⇒ 1. The space within: We create an internal space of stillness. Meditation is without doubt one of our most valuable tools in the development of this internal space of receptivity.

⇒ 2. To receive: we develop our ability to receive our full experience of what it is to be alive and fully present.

⇒ 3. To reflect: we deepen and strengthen our objective capacity for reflective thought.

⇒ 4. Respect: we learn to walk gently through life, treating ourselves, others and life itself with respect.

⇒ 5. Responsiveness: we heighten our awareness of our capacity for conscious choice and we develop our ability to live through mindful and considered action, actions that are truly responsive.

⇒ 6. Resolution: Through our increasing insight and self-awareness we seek resolution of any past challenging experiences.

⇒ 7. Relationship: And lastly we understand that as human being we are fully relational and that when we embrace our daily living and our

capacity for conscious intention through the principles of spiritual empathy,

⇒ "Rather than dreaming of having more, we dream of being more" ..

4. Discuss the role of yoga for professional excellence and stress management.

1. Increased flexibility:

⇒ Many athletes incorporate yoga into their workout schedules to improve or maintain flexibility.

2. Emotional Boost

⇒ Both yoga and meditation improve mental focus and provide a general feeling of well-being.

3. Better Diet.

⇒ Studies suggest that practicing yoga improves fitness and body awareness, leading to better eating habits.

4. Improved Health:

⇒ Adding yoga or meditation to our life it will improve our health and we can participate in more physical activities.

Physical benefits

⇒ At a physical level, meditation does the following things.

⇒ Lower high blood pressure -

⇒ Lower the levels of blood lactate, reducing anxiety attacks.

⇒ Decreases any tension-related pain, such as,

tension headaches, ulcers, insomnia, muscle and joint problems.

- ⇒ Increases serotonin production that improves mood and behaviour
- ⇒ Improves the immune system.
- ⇒ Increases the energy level, as you gain an inner source of energy.

Mental Benefits:

- ⇒ Anxiety decreases
- ⇒ Emotional stability improves
- ⇒ Creativity increases
- ⇒ Happiness increases
- ⇒ Meditation and yoga sharpens the mind by gaining focus and expands through relaxation.
- ⇒ Meditation makes you aware - that your inner attitude determines your happiness.

Effective way for stress management.

- ⇒ Yoga and meditation are two best and effective ways for stress management.
- ⇒ Regular yoga practice helps to reduce stress response in your body, according to a study in the 2010.
- ⇒ Meditation is also an effective stress reducer that is used to help reduce anxiety, panic disorders and agoraphobia, an anxiety disorder.

5. Write a short note on (i) Honesty (ii) Co-operation  
(iii) Commitment (iv) Character.

(i) Honesty

⇒ Any human being should inherent with honesty

⇒ Honesty in acts, honesty in speech and honesty

in beliefs.

⇒ Honesty is the fundamental virtue in human relationship even though it may be difficult to follow some times.

⇒ Two aspects of honesty

1) Truthfulness - meeting responsibilities concerning truth-telling.

2) Trustworthiness - Meeting responsibilities concerning trust.

(ii) Co-operation

Cooperation is the process of working or acting together. In its simplest form it involves things working in harmony and is pooling up of resources for a common good or cause.

The basic idea is focusing of collective efforts at the societal level in production and distribution of shareable social goods.

Shareable social goods are roads, means of transport, communication systems, civil

amenities, utilities like water, electric and gas supply, health care systems, recreational facilities

⇒ At employee level it amounts to team work.

⇒ At family level, it amounts to sharing the burden of earning a living, looking after aged and children, housekeeping and hospitality.

(iii) Commitment

⇒ It means adhering or devotion to a moral ideal in a practice of engineering.

⇒ It is not working for monetary benefits.

⇒ Involve, identify, love oneself with work and to contribute to the maximum extent possible.

(iv) Character:

⇒ It is a combination of integrity, usefulness, understanding, conviction, courage, loyalty and respect.

⇒ It is to maintain composure and poise.

⇒ It is sure footedness and confidence without arrogance.

- ⇒ It is self discipline, considerate and knowledge
- ⇒ It is learning from the past mistakes.
- ⇒ Character can be seen as a combination of many moral values and beliefs.
- ⇒ Character building starts from infancy and continues to grow as one grows.

6. What is spirituality? What are the spiritual traits to be developed for excellence in an organization? Discuss with suitable examples.

Spirituality!

⇒ Spirituality raises a man above the materialistic world into a realm where he seeks peace and real happiness.

Spiritual traits to be followed in organization.

1. Connect your work to your value system.
2. Look at things positively.
3. Treat others well.
4. Take some time for yourself.
5. Get to know your coworkers.
6. Speak to your boss about ideas you have to spread workplace spirituality.

7. Be mindful

8. put people first

9. find others who feel the same.

10. Slow down

11. Take stock regularly.

1. connect your work place to your value system.

⇒ Don't just take a job just because it is high paying and has a lot of benefits.

⇒ These sorts of jobs may not align with your value system, and you may find it difficult develop any sort of workplace spirituality.

⇒ Instead, choose a career that focuses on your core beliefs. If you want to do something that gives back to the world, focus your skills so that you can do work that fulfills that.

2. Look at things positively:

⇒ If you are able to take frustrating situations and bring light to them, you will be better at your job, and you will treat those around you better.

⇒ Try to use positive words when you talk about the situation.

3. Treat others well:

⇒ Bringing this kind of kindness to the workplace

can be contagious.

⇒ Not only will it make you more positive, but it allows you to spread joy to others.

4. Take some time for yourself:

⇒ Work on incorporating things like meditation, prayer, or mantras into your workday, depending on the sort of spirituality you practice.

⇒ These are work (things) that can be done at your desk without anyone even noticing.

⇒ They can be quick moments throughout the day that bring you back to your spirituality and allow you to focus better at work.

5. Get to know your coworkers:

⇒ Getting to know what's important to those around you can only benefit the business.

⇒ Whether it's a work issue or something that is happening in their personal lives.

⇒ The more you learn about your coworkers, the more you will be able to sympathize with them.

6. Speak to your boss about ideas you have to spread workplace spirituality.

⇒ Come up with a few ideas that align with the company's values and bring them to your



Supervisor: Be passionate about it.

⇒ Have a clear understanding of what will be required of the company and how this will not only make the community better, but also how it will improve the business.

7. Be mindful

→ Being mindful of yourself is one of the most valuable things you can do bring your spirituality to work with you each day.

⇒ If you are fully aware of your actions and words, you will make decisions that align with your values.

8. Put people first:

⇒ put your customers first. Listen to what they want and figure out ways that you can help and connect with them even more than you do now.

9. Find others who feel the same.

⇒ If you don't feel comfortable speaking about your spirituality at work, discuss it with your friends that you have outside of the office.

⇒ Ask them how they implement spirituality at work without making others around them uncomfortable.

10. Slow down.

⇒ Slow down when you can. Even when it feels like it's impossible to slow down, simply take a moment and step back from the situation.

⇒ Take a few deep breaths. Slowing down is easier than you think.

11. Take Stock regularly.

⇒ Take Stock regularly of how you are applying your values to your practice of spirituality at work.

⇒ No matter what your beliefs or values are, it is important to carry them with you both in your personal life and when you're at work.

⇒ Be true to yourself, and if you feel that you are not able to carry your values with you at work then it may be time to find somewhere that you can.

7. Write a short note on (i) work ethics (ii) civic virtue (iii) Respect for others (iv) living peacefully.

(i) Work ethics:

⇒ By one's work one cannot harm others.

⇒ Any worker cannot escape accountability.

⇒ Worker has the moral responsibility to see

that no other person's right, private or freedom is impaired or transgressed.

⇒ It is a value based on hard work and diligence

⇒ It also a belief in the moral benefit of work and its ability to enhance character.

⇒ The following five characters ensure the possession of work ethics in an employee:

a) Reliability

b) Dedication.

c) Productivity

d) Co-operation

e) Character.

(ii) Civic Virtue:

⇒ Good citizen demand civic virtue.

⇒ It is the principle of not harming the surroundings it also includes,

a) living peacefully

b) Respect for others

c) Protecting the environment

d) Being normally and ethically good.

Importance:

⇒ Civic virtue both expresses and builds trust and co-operation in the citizenry, and it is these qualities - "social capital" - that make everything else go well.

## (iii) Respect for other:

⇒ Respect for other individuals can be shown in many forms, but the following four ways may teach you how to respect others opinions, also the need of self-respect in the society, in an organization, wherever people being together while working, living and when they meet publicly.

1. Showing gratitude
2. Respecting others opinions
3. Respecting your enemies
4. Respecting yourself.

## (iv) Living peacefully:

Ten ways to stop stressing & start living peacefully.

1. Take time for silence.
2. Get rid of stuff
3. Give yourself a safe space
4. Create a budget
5. Organize your time and self
6. Stop being influenced by media.
7. Be rational
8. Exercise.
9. Express gratitude.
10. Trust yourself.

⇒ Remember these things

- a) worrying accomplishes nothing
- b) worrying is bad for you
- c) it is opposite of trust and peace
- d) it put your attention in wrong direction.