**Assessment for Module 2: Introduction to Anaerobic Digestion**

***Instructions:***

1. *Watch the video for each topic.*
2. *Answer the questions for that topic. You are welcome to type your answers to this Word document.*
3. *Email the completed document to jrichmond@vtc.edu.*

**2.1 The anaerobic digestion process**

1. Is composting aerobic or anaerobic?
2. Is anaerobic digestion anaerobic or aerobic?
3. Which is typically higher, and why: BOD or COD?
4. Give at least three reasons that the US is behind Europe, and much of the world, in implementation of AD technology.

**2.2 Applications of anaerobic digestion**

1. What environmental problems are caused by release of untreated, high-strength organic wastes to land or water? Give at least three examples.
2. What factors prevent more widespread use of AD on US farms? Give at least three examples.

**2.3 A snapshot of AD in Vermont (2015)**

1. Typically, what percentage of the cost of Vermont farm AD has been covered by government grants or loans?
2. What is the Cow Power program and how does it interact with the public?

**2.4 Products from anaerobic digestion**

1. What is the difference between biogas & biomethane? Define each term.
2. Energy content of biogas:
3. What is the energy content of biogas in Btus?
4. How efficient is an internal combustion engine at producing electricity?
5. Why are farmers sometimes more interested in producing separated solids than biogas?

**2.5 Environmental benefits & concerns: placing anaerobic digestion into context**

1. What is GHG power of methane?
2. Which technology exposes pathogens to higher temperatures, anaerobic digestion or composting?
3. Anaerobic digestion produces a number of gases. Which two are most toxic to animals and humans?
4. What is a CAFO?

***What are your three biggest questions or interests in AD?***