

# CS 438/590: Artificial Intelligence

## Assignment 4 – Fall 2022

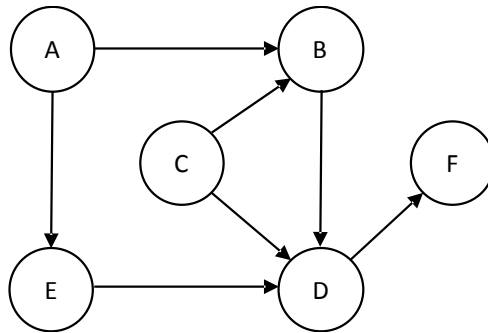
Dr Eren Gultepe

*Assistant Prof of Computer Science, Southern Illinois University Edwardsville*

### *Bayesian Network and Distributions*

#### **Problem 1 [5pts]**

For the Bayesian Network below, write the joint probability expressed as a product of the individual conditional probabilities.



#### **Problem 2 [5pts]**

Draw the Bayes Network associated with the following joint distribution:

$$P(A)P(B|A)P(C)P(D|A, B, C)P(F)P(E|D, F)$$