@startuml

namespace bertini

Node ¡—— Operator
Node ¡—— Symbol
Operator ¡—— Plus
Operator ¡—— Minus
Operator ¡—— Negate
Operator ¡—— Times
Operator ¡—— Divide
Operator ¡—— Exp
Operator ¡—— Log
Operator ¡—— Sine
Operator ¡—— Cosine

Symbol ¡—— Variable
Symbol ¡—— PathPariable
Symbol ¡—— Coefficient

Function o– Node

class Node

..
disallow empty instantiation?
this might be acheieved by pure virtualism
..
virtual SetPrecision(int prec)
..
virtual Evaluate()
..
virtual String()

–

-Node() private so that empty construction prohibited.
this may help protect against errors in parsing

class Operator
empty virtual class?

class Variable
..
Evaluate() virtual
return current value
..
String() virtual
return name

$class Plus + Plus(Node, Node)..String()$

$class Minus + Minus(Node, Node)..$

$class Negate + Negate(Node)..$

$class Times + Times(Node, Node)..$

$class Divide + Divide(Node, Node)$

$class Polynomial Node to top of the tree$

$class Symbol empty virtual class$

@$enduml$