## Division of Continuing Education

Module 3: Threads in Go

Topic 2.1: Basic Synchronization

## **Synchronization**

 Using global events whose execution is viewed by all threads, simultaneously

| <b>1</b> : x = 1     |            |
|----------------------|------------|
|                      | 1: print x |
| <b>2</b> : x = x + 1 |            |

Want print to occur after update of x



## Synchronization Example

## Task 1

$$x = 1$$
 $x = x + 1$ 
**GLOBAL EVENT**

Task 2

```
if GLOBAL EVENT print x
```

- GLOBAL EVENT is viewed by all tasks at the same time
- Print must occur after update of x
- Synchronization is used to restrict bad interleavings

