MINI QUIZ: BINARY CONVERSION OF PROTOCOL BUFFER

Consider the following Protocol Buffer schema definition:

```
message Student {
    required string name = 1
    repeated uint32 courses_taken = 2
}
```

Produce the binary protocol buffer representation of these students:

```
Courses by ID:
0: Algorithms,
1: Architecture,
2: Databases,
3: Operating Systems,
4: Math for Engineers,
1028: Languages

"Mary Lambsworth" has taken Algorithms and Databases
"Jack B. Quic" has taken Languages
```

> Note: Yes it is strange that languages has ID 1028 even though it could just as easily be ID 5. In an examination of Protocol Buffers why is 1028 a more interesting value than 5?

> Tip: Don't convert the string to UTF-8 by hand. Use a tool.