## Chapter 1

# Welcome

"I don't think we're in Kansas anymore."

## **1.1** Introduction

My name is Justin Curry and I will be the facilitator for your learning in this course. I say facilitator, because learning is a cooperative and democratic effort. You are here under (supposedly) your own free will, so you should make the most out of the time we have.

I titled this course "Gödel, Escher, Bach: A Mental Space Odyssey" for a variety of reasons. The first part is not necessarily obvious. Although the three names allude to the **very famous** mathematician Kurt Gödel, the even **more prominent** artist Maurits Cornelis Escher, and finally the **musical genius** Johann Sebastian Bach, this course will **NOT** be about these three remarkable individuals. Rather, we will find that their spirits aboard our mental ship as we explore the ideas that surround the contents of this course.

So what is this course about? It will be a course in climbing mental mountains and crossing intellectual oceans; with Douglas R. Hofstadter's **Pulitizer Prize-winning** book "Gödel, Escher, Bach: An Eternal Golden Braid" often called GEB, as our guide book. I will not go any further in describing what GEB is about and save that for a later time.

Finally, you should really consider this class a "Mental Space Odyssey" – an ode to Stanley Kubrick's "2001: A Space Odyssey". I want you all to become very used to the idea of packing your bags and going on an intellectual vacation.

#### Your brain is about to go on a serious trip.

### **1.2** Class Philosophy

I have already alluded to the fact that this class is going to be a democratic one, and as such I offer you the following deal: When ever I am going to fast, too slow, too math-y, too lofty, I want you to yell "STOP!" Everyone learns very differently and has a certain set of interests that gets them pumped up, and another set of turn-offs that puts them to sleep. Hofstadter talks about GEB as a book which illuminates a central concept from multiple angles, so I need to know what angles work for you guys, and I will try my best to accommodate them. In short, "What gets you pumped up?"

There is one more thing. Whenver you hear something which you want to challenge, I invite you to call me out on it. If it will benefit the discussion, I will pause, hear your case and we will lock horns until the issue is resolved.

## 1.3 What is this document?

The course notes collected here represents a particular instance of a continuously evolving set of notes on GEB. It is intended to be a mildly cohesive, but more importantly comprehensive source for thinking about GEB, its nuances, its themes, and its inspired thinking (ha, recursive!).

Although GEB is a self-contained education, the sole purpose of this book is to supplant **GEB with outside resources!** For the time being, it will only cover certain key chapters of GEB. This reflects that fact that these course notes were orginally designed for a 10 and an 8-week lecture course. Certain areas are necessarily sacrificed, but there is always room in the future!

## 1.4 Acknowledgements

This is actually the product of many hands at work. Professor Jeff Elhaij at the Virginia Commonwealth University, taught a course in the Spring of 2001 based on GEB. Without his efforts, key parts of these course notes would be non-existent. Almost all of the study questions for the first three chapters and dialogues are his, and the logical content of this book is in part inspired by his course. I would also like to thank Wikipedia and all of the other GEB fans that have been infected by Hofstadter's thinking and have devoted a small (or large) part of their lives to GEB. **This book has changed many people's lives, and I hope it will impact you!** 

Finally I would like to offer special thanks to the following people for the following reasons in no particular order:

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