

# Language Study: Erlang

Some history and advice as we begin our  
adventure. . . .



# Advice

- ✦ Attend every class. Don't miss even one.
- ✦ Put your devices away (unless we are doing interactive exercises) and pay attention in class.
- ✦ Take notes in class (in pencil) on paper.
- ✦ Rewrite your class notes into a new notebook as a form of studying.
- ✦ Do every lab. Sometimes twice. Commit to GitHub.
- ✦ Work on your labs and projects every day.



# Advice

- ✦ Attend every class. Don't miss even one. Why?
  - > If you're not in class I will never have the opportunity to invite you to join a faculty research project, or the IBM Joint Study, or a hackathon, or a CCAC project, or an ECRL project, or a Summer Fellowship, or the Marist Innovation Lab.
  - > If you're not in class I will never know you well enough to write you a letter of recommendation or recommend you to an employer.



# ADVICE from Dr. Helen Rothberg



- ✦ **A**ction — Do more, say less. Pursue your interests. Ask for help when you need it.
- ✦ **D**etermination — Stick to it and get things done.
- ✦ **V**ision — What are you trying to become? What do you want to do with your life? How will you get there?
- ✦ **I**ntegrity — Tell the truth all the time. Don't create or participate in drama.
- ✦ **C**ommunication — Be attentive and dig in, even if it's hard.
- ✦ **E**mpathy — Dare to care about yourself and others.



# Do Not Make Excuses

- ✦ I love Chris Algozzine, but I don't give a damn about Capping.
- ✦ These people failed the class.

----- Original message -----

To: Alan Labouseur/FAC/Marist@Marist

Subject: Projects

Date: Sun, Dec 9, 2018 8:33 PM

Also, I wanted to say sorry for the subpar work. I've just been incredibly overwhelmed by capping. I enjoy having you as a professor and I don't want you to think I'm just blowing your class off, I've just been trying to keep my head above water.

----- Original message -----

To: Alan Labouseur/FAC/Marist@Marist

Subject: Projects

I chose to dedicate my productive hours towards my capping project, due to the fact that I prioritize my team's performance highly.

- ✦ Don't even mention Capping to me. Seriously.
- ✦ Work on your project and assignments **every** day.



# Do Not Make Excuses

- ✦ This is not acceptable:

----- Original message -----

To: Alan Labouseur/FAC/Marist@Marist

Subject: RE: Projects

Hi Professor Labouseur,

I just looked at my email this morning, I'm surprised you didn't get my work. I thought I pushed it Sunday, But I now realize I didn't set upstream origin for the branch, so it didn't actually get pushed. I've just re-pushed this morning so you can review it.

- ✦ I did not “review it”. The grade remained the same.
- ✦ If you cannot figure out GitHub, you will not be earning a CS / ITS / Cyber / Data Science degree.



# Academic Honesty

- ✦ These are individual projects. All work must be your own.
- ✦ Any violation of this will result in your **immediate** and **automatic** failure of this class.
- ✦ This is your only warning. The next time we talk about this it will be in the context of me telling you that you have failed this class.
- ✦ I am serious. Ask prior students.



# Academic Honesty

✦ I will be checking your work against...

- your class
- other classes
- all past projects and...

## Labs and Projects

**Lab Zero** - Limericks in LaTeX

**Lab One** - Erlang's history and interactive environment. This **document** is not the answer.

**Lab Two** - Recursive functions

**Lab Three** - Interactive Fiction. This **program** is a simple (and silly) start. Yours must be more robust and more elaborate.

**Lab Four** - Client/Server Tic-Tac-Toe

**Final Project** - Distributed Adventure Game



# Academic Honesty

✦ I will be checking your work against...

- your class
- other classes
- all past projects and...
- GitHub

73,974 code results Sort: Best match ▾

Teino1978-Corp/erlang-otp  
[lib/megaco/test/megaco\\_test\\_deliver.erl](#)

```
59 i("process_received_message -> entry with"
60     "~n ReceiveHandle: ~p"
61     "~n ControlPid: ~p"
62     "~n SendHandle: ~p",
63     [ReceiveHandle, ControlPid, SendHandle]),
...
71 megaco:process_received_message(ReceiveHandle, ControlPid,
72     SendHandle, BinMsg,
73     Extra);
```

● Erlang Showing the top five matches Last indexed on Mar 24

mosaic-cloud/mosaic-distribution-dependencies  
[dependencies/otp/17.1/lib/megaco/test/megaco\\_test\\_deliver.erl](#)

```
57 process_received_message(ReceiveHandle, ControlPid, SendHandle, BinMsg) ->
58 i("process_received_message -> entry with"
59     "~n ReceiveHandle: ~p"
60     "~n ControlPid: ~p"
61     "~n SendHandle: ~p",
```

● Erlang Showing the top four matches Last indexed on Mar 23

mosaic-cloud/mosaic-distribution-dependencies  
[dependencies/otp/15b03-1/lib/megaco/test/megaco\\_test\\_deliver.erl](#)

```
57 process_received_message(ReceiveHandle, ControlPid, SendHandle, BinMsg) ->
58 i("process_received_message -> entry with"
59     "~n ReceiveHandle: ~p"
60     "~n ControlPid: ~p"
61     "~n SendHandle: ~p",
```

● Erlang Showing the top four matches Last indexed on Mar 23

GitHub Code Search

rust-lang/rust

library/std/src/sys\_common/wtf8.rs 886 lines (785 sloc) | 27.43 KB [view on github.com](#)

```
48 /// Format the code point as 'U' followed by four to six hexadecimal digits.
49 /// Example: 'U+1F4A9'
50 impl fmt::Debug for CodePoint {
51     #[inline]
52     fn fmt(&self, formatter: &mut fmt::Formatter<'_>) -> fmt::Result {
53         write!(formatter, "U+{:04X}", self.value)
54     }
55 }
56
57 impl CodePoint {
58     /// Unsafely creates a new 'CodePoint' without checking the value.
59     ///
60     /// Only use when 'value' is known to be less than or equal to 0x10FFFF.
61     #[inline]
62     pub unsafe fn from_u32_unchecked(value: u32) -> CodePoint {
63         CodePoint { value }
64     }
65
66     /// Creates a new 'CodePoint' if the value is a valid code point.
67     ///
68     /// Returns 'None' if 'value' is above 0x10FFFF.
69     #[inline]
70     pub fn from_u32(value: u32) -> Option<CodePoint> {
```

**class CodePoint**

Definition

```
44 pub struct CodePoint {
    value: u32,
    fmt: u32,
    from_u32_unchecked: u32,
    from_u32: u32,
    from_char: u8
}
```

in this class:

- value: u32
- fmt: u32
- from\_u32\_unchecked: u32
- from\_u32: u32
- from\_char: u8

see all 9 symbols

24 matches in this file

```
50 impl fmt::Debug for CodePoint {
51 impl CodePoint {
52     /// Unsafely creates a new 'CodePoint' w...
53     pub unsafe fn from_u32_unchecked(value: ...
54     CodePoint { value }
55 }
```

Show more references



# Write Original Code

- ✦ Infuse your code with your personality.
  - variable names, code conventions, and style
  - structure and modularization
- ✦ Write grammatically correct comments and steep them with your personality. Be snarky, clever, and funny if you like. I want to get to know you by reading your code.
  - Comments should say things about the code that the code cannot say about itself.
- ✦ List collaborators (including AI), references, and sites consulted in a comment block at the top of each file.



# What about using an AI?

- I've been teaching my teenage son to drive. We started with golf carts and then moved to a real car in empty parking lots.
- He's making incremental progress built on a solid foundation (and cart paths). But he's a long way from driving in F1.
- If I were to put him in an Aston Martin he'd surely hurt himself and others.
- AI code generators are like F1 racecars. Until you have a solid foundation you're only going to hurt yourself and others by using them. But if you feel that you're ready... DRS is enabled so go for it!





# When using an AI

- As ever, anything that's not 100% yours and yours alone **must be marked and cited with sources**. Whether you get help from an online AI, a tutor in the programming lab, or a random student sleeping outside of Marion Hall, you have to acknowledge that help and cite it or it is unquestionably plagiarism. Copying and pasting from a Hall of Fame project or GitHub or some other online source is unquestionably plagiarism unless you cite it; and this is no different.
- How do you cite it? Let's ask ChatGPT . . .



# When using an AI



Write a citation for ChatGPT in ACM reference format



As of my last knowledge update in September 2021, there isn't a specific ACM (Association for Computing Machinery) reference format for citing AI language models like ChatGPT, as these models are relatively new and standards may not have been established at that time. However, you can follow a general citation format in accordance with ACM guidelines, and adapt it as needed based on any new guidelines that may have emerged after my last update. Here's a general citation in ACM format:

less

Copy code

```
[Author(s)]. [Year]. "ChatGPT: A Language Model for Natural Language Underst
```

Please replace `[Author(s)]`, `[Year]`, `[Name of the Conference or Journal]`, `[Volume number](Issue number)`, `[Article number]`, `[Page numbers]`, and `[DOI if available]` with the specific information relevant to the version or publication of ChatGPT you are citing. If there are specific guidelines or recommendations from ACM for citing AI language models as of 2023, I recommend following those guidelines for the most accurate and up-to-date citation format.



# When using an AI

- I'm interested in learning about how well (or not?) AI-assisted software development works for you. If you make use of an AI you must document your experience with it for every project: the chat interactions, what worked and what didn't, challenges, unexpected occurrences, etc. Include a reflection about the experience as well. I'm interested to learn from you and your experiences with this new technology.
- Remember: plagiarism is one of the few sins where it is easier to receive permission than forgiveness. So if you are at all unsure about any aspect of this, ask me about it first.



# Before asking me for help

- ✦ Review your code yourself by reading it from the perspective of someone seeing it for the first time.
  - Consider your variable names — are they descriptive?
  - Did you write plentiful comments about why you made those choices rather than what the code does?
  - Examine your code conventions and style — is it consistent?
  - Fix anything that's missing, unclear, or confusing.



# When asking me for help

- ✦ Explain the problem clearly. Context matters.
- ✦ Describe several test cases that illustrate the problem.
- ✦ Tell me what you observed when looking at your code line by line. (Do not ask me for help unless you have already done this. Seriously.)
- ✦ Make sure the latest version is committed on GitHub and include a link to it in your e-mail.