# Syllabus 2022 SPRING

# CS 610-301 SURVEY OF PROGRAMMING LANGUAGES

CRN: 13071 , CREDITS: 3

# General Information

## Contact Your Instructor

 **Name:** R.B.Abhyankar

**Email:** R.B.Abhyankar@indstate.edu

**Office:** Root Hall, A-182

## Lecture, Exam, Office Hours

This is an asynchronous online class. Instructor prefers communication via email.

**Final Exam:** Details will be provided later.

**Instructor Office Hours: 8**:00 a.m. to **9**:00 a.m. , MWF via land line:

812-299-5177, and also by appointment.

**Website**: There is a Blackboard Site for the course.

## Prerequisites

CS 101/CS 151

## Required Textbook(s)

## [1] Programming in Haskell, Second Edition, by Graham Hutton, Cambridge University Press,

 ISBN: 978-1-316-62622-1.

[2] Gentle Introduction to Dependent Types with IDRIS by Boro Sitnikovski, Kindle Edition, available from Amazon.com:

 https://www.amazon.com/Gentle-Introduction-Dependent-Types-Idris-ebook-dp-B07H5M32YM/dp/B07H5M32YM/ref=mt\_other?\_encoding=UTF8&me=&qid=1637520860

## Course Announcements

You should regularly visit the BlackBoard site for the course, and check for assignments, quizzes, and other announcements.

Most announcements will be also sent to your ISU email address.

## Classroom conduct (for face-to-face classes)

You may not use cell phones, iPods/music players, etc. during class. You should be civil and respectful to both the instructor and your classmates, and you should arrive to class a few minutes before the scheduled lecture so you are ready for lecture to begin on time. You may use your computer during class if you are using it to follow along with the examples that are being discussed. You may not check email, facebook, work on other courses, etc. during class.

# Course Description

The official description of this course from the catalog is :

An introduction to programming in a wide variety of programming languages and paradigms.  Paradigms include: imperative/procedural, object-oriented, functional, logic, and scripting.  A focus is placed on obtaining basic proficiency in many languages.  A second focus is on understanding language theory, design choices, and implementation.

# Course Outline

Programming Paradigms: Logic Programming, Functional Programming, Object Oriented Programming , Concurrent Programming, Aspects of Theory, Implementation, and Applications.

Normal Content

Programming in Haskell, Idris, Erlang, Ocaml : Applications.

Theory and implementation aspects:Syntax, Semantics, Verification.

# Learning Outcomes

After completing the course, the student should be able to explain and utilize Programming Language concepts.

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# Expected Amount of Workaml

If you take this class seriously and get what you should out of it, some weeks you will likely be spending around 4 **hours/week** or more on the class. The students who get A’s in their CS courses and have an easy time finding jobs do spend this much time on this course. Not everyone would need to spend this much time and not all weeks will be the same, but you should plan on putting in whatever time it takes.

# Grading and Assignments

The students of this course have the following responsibilities: read assigned readings before lecture, attend lecture, complete homework assignments, take in-class quizzes, take exams, and complete a project. Late submission of work will not be accepted.

DISTRIBUTION OF POINTS

 Assignments: 45 %

 Quizzes: 45 %

 Final Exam: 10 %

## CS Course Policies

Note that this course follows all standard CS course policies. In particular check the CS course policies related to - cheating/plagiarism, attendance, missing exams. See <http://cs.indstate.edu/info/policies.html> for details.

## Late Homeworks/ Assignments

Late submission of assignments may not earn full credit due.

##

## Start Homeworks Early

We suggest attempting a homework assignment the day it is given, or the day after, so that if you have a problem you can ask early. If you continue to have problems in trying to complete the assignment, you will have time to ask again. Many of the homework assignments require thought and problem solving, which takes “time on the calendar” not just “time on the clock”. By that we mean that spending two hours on 3 consecutive days may be more productive than trying to spend 6 hours at once on the assignment.

## Grade Cutoffs

GRADING SCALE:

Percentage Minimum Grade

95 and up A

90-94 A -

87-89 B +

84-86 B

80-83 B -

77-79 C +

74-76 C

70-73 C -

67-69 D +

64-66 D

60-63 D -

59 and below F

Our goal is that the different grades have the following rough meaning.

**A+/A**
You can do *all* the assignments *on your own*.

**B+/A-**You understand nearly everything, and should be all set to use this knowledge in other courses or in a job.

**B-/B**

Most things you understand very well and a few you might not (more towards the former for a B and more towards the latter for a C).

**C/C+**
Learned enough and have the minimum skills to move on in the subject.

**D+/C-**
You did put some effort in, and understand many things at a high level, but you haven’t mastered the details well enough to be able to use this knowledge in the future.

**D-**

Students will normally *not* get an F if - you attend 80% of the lectures, complete some of the assignments up through the end of the course, and get nearly half of the problems on the final exam correct.

**F**
Normally, students that get an F simply stopped doing the required work at some point.

# Blackboard

The course has a blackboard site. Click [here](http://blackboard.indstate.edu) to go to blackboard. You should see this course listed under your courses for the current term.

# Academic Integrity

Follow the standard CS course policies in terms of what is and is not allowed on assignments: <http://cs.indstate.edu/info/policies.html>

Please ask the instructor if you have doubts about what is considered cheating in this course.

# Special Needs / Student Disabilities

Indiana State University recognizes that students with disabilities may have special needs that must be met to give them equal access to college programs and facilities. If you need course adaptations or accommodations because of a disability, please contact us as soon as possible in a confidential setting either after class or in my office. All conversations regarding your disability will be kept in strict confidence. Indiana State University's Student Support Services (SSS) office coordinates services for students with disabilities: documentation of a disability needs to be on file in that office before any accommodations can be provided. Student Support Services is located on the lower level of Normal Hall in the [Center for Student Success](http://www.indstate.edu/services/student-success/cfss) and can be contacted at 812-237-2700, or you can visit the ISU website under A-Z, [Disability Student Services](https://www.indstate.edu/services/student-success/cfss/student-support-services/disability-student-services) and submit a Contact Form. Appointments to discuss accommodations with SSS staff members are encouraged.

Once a faculty member is notified by Student Support Services that a student is qualified to receive academic accommodations, a faculty member is obligated to provide or allow a reasonable classroom accommodation under ADA.

# **Disclosures Regarding Sexual Misconduct**

*Standard language included in the syllabi for ISU courses.*

Indiana State University fosters a campus free of sexual misconduct including sexual harassment, sexual violence, intimate partner violence, and stalking and/or any form of sex or gender discrimination. If you disclose a potential violation of the sexual misconduct policy I will need to notify the Title IX Coordinator. Students who have experienced sexual misconduct are encouraged to contact confidential resources listed below. To make a report or the Title IX Coordinator, visit the Equal Opportunity and Title IX website:<http://www.indstate.edu/equalopportunity-titleix/titleix>.

The ISU Student Counseling Center – HMSU 7th Floor | 812-237-3939 | [www.indstate.edu/cns](http://www.indstate.edu/cns)

The ISU Victim Advocate – Trista Gibbons, trista.gibbons@indstate.edu

HMSU 7th Floor | 812-237-3939 (office) | 812-230-3803 (cell)

Campus Ministries - United Campus Ministries | 812-232-0186

 <http://www2.indstate.edu/sao/campusinistries.htm>

[www.unitedcampusministries.org](http://www.unitedcampusministries.org/) | ucmminister2@gmail.com

321 N 7th St., Terre Haute, IN 47807

For more information on your rights and available resources<http://www.indstate.edu/equalopportunity-titleix/titleix>