coggle
made for free at coggle.it

- Start
- Introduction
  - Who I am
    - From where I came
    - Where I am now
      - East Los Angeles
      - Baby
    - Broad overview of what has happened
      - with teaching
        - Artemis
        - Quality
        - Liberal arts
      - With research
        - IceCube Gen2
        - Addition of ONR projects
      - With service
        - ESAC
        - DLR/ERC
        - WSP
        - Artemis and CEC
      - With advising
  - What I will cover
    - Pertinent background
      - Neutrino physics
        - IceCube
          - Radio
    - Specific time period, four areas plus major plans
- COVID-19
  - Protecting and raising my child
  - Expeditions and quarantine
  - Tenacity
  - Jokes! East Los Angeles
  - Working from home and productivity
- Teaching
  - Overall philosophy
    - Building on what is already there, growth
      - Methods
        - Online Modules
        - Traditional Teaching Modules
          - PER Modules
            - PI
            - PhET
          - Lab Modules
        - OER
      - Liberal Arts Courses
        - CON2 Courses
          - Antarctica
            - Self-reflection
            - Indigenous engineering
            - Exploration Literature
          - Latin America
            - Cross-cultural exchange of scientific thought
              - Two-way, not central/peripheral
        - College Writing Seminar
          - Honing skill, clarity
          - Preparation for future courses
            - Summer Math 080 section
              - Application of PER methods worked
          - Inclusion, belonging to a community: gaming with my students
      - Physics Majors
        - Courses
          - Scores
            - Written evaluations
      - Non-majors
        - Courses
          - Scores
            - Written evaluations
    - Teaching goals and departmental goals
      - Explain how those goals are being met in each course category
- Scholarship
  - Mathematical Physics of Askaryan Radiation
    - Computational Electromagnetism (CEM)
    - Drone development
    - The five key areas
      - Neutrino Research
      - IceCube Gen2 Membership
  - Open-source antenna design
    - Firnware, software, hardware (antennas) development
  - Connections to Neutrino Research
    - CEM Phased Array Design
  - Radar testing and communication applications
    - 3D Printing of RF antennas
  - Engineering research
  - Office of Naval Research
    - Background
      - The history of IceCube
        - Radio expansion
          - Necessity
          - Potential
        - My background
          - Before Whittier College
            - Success with students at Whittier College
              - Connections to teaching
- Advising
  - Gaining financial support
    - Equipping Whittier College labs
      - Building student careers
        - Building pipeline program between NSWC and Whittier College
  - Benefits of open access journals from the perspective of equity and inclusion
    - Italian connection through open access journal
  - Connection to teaching
    - Advising first-years
      - How many?
      - How often?
    - Navigating the first year, course selection
      - Connections to mentoring first-years and first year orientation
        - Retention Strategies
      - Equity, access
        - Used free technology to boost access and streamline schedule
          - Worked around students' work schedules
      - Discernment of major
    - Advising Whittier Scholars Program Majors
      - Project development
      - Deployment organization
      - Credit from other programs
      - Thinking broadly across disciplines
        - Polishing the finished product, connections to research and writing
        - Nicolas internships, including at UC Irvine
          - Iceland
          - Antarctica
      - Advising Majors
        - Discernment of what *kind* of major: theory, experiment, engineering, ICS
        - Graduate school
          - Connection to research
            - Coaching on path to publication, training
          - Letters of Recommendation
        - Private sector
          - Advising on Social Media and Resume building
- Service
  - Service to Department
    - Mentoring majors
    - Self-Study and accreditation
  - OER Workshops
    - OpenStax
    - Open-access
      - DSP
  - Summer working groups
    - LaTeX tutorials
  - ESAC 2 Years
    - Articulating how the GPA and test criteria are applied
  - ERC/DLAC
    - Analytics of admissions data
    - Senior thesis archival policy creation
  - CEC/Artemis
    - Equity and Inclusion
  - First Year Orientation
    - Equity and Inclusion: belonging
  - Whittier Scholars Program
    - Found my calling