Spring 2023

Seminar in Translational Artificial Intelligence
GMS 5905; Section 44BH; 1 Credit

CLASS MEETING INFO
4:30PM-5:20PM Wednesdays
Communicore C1-017

INSTRUCTOR
Manuel Arreola, PhD; arreom@radiology.ufl.edu; 352.265.0293
Office Hours: By appointment

Reza Forghani, MD, PhD; rfor0004@radiology.ufl.edu; 352.265.0293
Office Hours: By appointment

TEACHING ASSISTANTS
N/A

PRE-REQUISITES/CO-REQUISITES
N/A

OBJECTIVES
To provide an in-depth overview of translational artificial intelligence and its impact on the science of Medical Physics.

REQUIRED TEXTBOOKS & SOFTWARE
N/A

MATERIALS AND SUPPLY FEES
N/A

RECOMMENDED MATERIALS
N/A

COURSE SCHEDULE

<table>
<thead>
<tr>
<th>Week 1</th>
<th>Wed Jan 11, 2023</th>
<th>Dr Forghani</th>
<th>Health Informatics, Artificial Intelligence, and Internet of Things: A High Level Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 2</td>
<td>Wed Jan 18, 2023</td>
<td>Dr Arreola</td>
<td>Artificial Intelligence in Medical Physics</td>
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<tr>
<td>Week 3</td>
<td>Wed Jan 25, 2023</td>
<td>Dr Maleki</td>
<td>Machine Learning Algorithm Generalizability</td>
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<td>Week 4</td>
<td>Wed Feb 1, 2023</td>
<td>Dr Forghani</td>
<td>Pixel Based AI and &quot;Imaging Omics&quot;: Texture Analysis, Radiomics, and Deep Neural Networks for Medical Image Analysis</td>
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<td>Week 5</td>
<td>Wed Feb 8, 2023</td>
<td>Dr Coombs</td>
<td>Imaging AI Algorithms for Use in Clinical Practice and the FDA Regulatory Process</td>
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<td>Week 6</td>
<td>Wed Feb 15, 2023</td>
<td>Dr Forghani</td>
<td>Non-Pixel Based AI Applications</td>
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<td>Week 7</td>
<td>Wed Feb 22, 2023</td>
<td>Dr Bryan</td>
<td>The Imitation Game: Computers and Radiologists</td>
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The Foundation for The Gator Nation
An Equal Opportunity Institution
ATTENDANCE POLICY; CLASS EXPECTATIONS; MAKE-UP POLICY
Students are expected to attend each class period. Periods which may be missed should be brought to the attention of the Instructor as far in advance of the class period as possible. In the event of an unexcused absence, it is the student’s responsibility to obtain and review the material that was covered during that class period.

Excused absences must be consistent with university policies in the Graduate Catalog and require appropriate documentation: https://gradcatalog.ufl.edu/graduate/

EVALUATION METHODS

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<thead>
<tr>
<th>Assignment</th>
<th>Total Points</th>
<th>Percentage of Final Grade</th>
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<tr>
<td>Timely Attendance</td>
<td>100</td>
<td>50%</td>
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<tr>
<td>Active Participation</td>
<td>100</td>
<td>50%</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>100%</strong></td>
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GRADING POLICY

<table>
<thead>
<tr>
<th>Percent</th>
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<tr>
<td>93-100</td>
<td>A</td>
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<tr>
<td>90-92</td>
<td>A-</td>
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<td>87-89</td>
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<tr>
<td>80-82</td>
<td>B-</td>
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<td>77-79</td>
<td>C+</td>
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<td>73-76</td>
<td>C</td>
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<tr>
<td>70-72</td>
<td>C-</td>
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<td>D-</td>
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More information on the UF grading policy may be found in the UF Graduate Catalog: https://gradcatalog.ufl.edu/graduate/

STUDENTS REQUIRING ACCOMMODATIONS
Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center: https://disability.ufl.edu/get-started/. Once registered, students will receive an accommodation letter which must be presented to, and discussed with, the instructor when requesting accommodation. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

COURSE EVALUATIONS
Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at
Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluer.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

UNIVERSITY HONESTY POLICY
UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Student Conduct Code (https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. If you have any questions or concerns, please consult with the instructor or TAs in this class.

SOFTWARE USE
All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

STUDENT PRIVACY
There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: http://registrar.ufl.edu/catalog0910/policies/regulationferpa.html

CAMPUS RESOURCES

Health and Wellness

U Matter, We Care
Email: umatter@ufl.edu, Phone: 352-392-1575; Website: https://umatter.ufl.edu/

Counseling and Wellness Center
Phone: 352-392-1575; Website: https://counseling.ufl.edu/

Student Health Care Center:
Phone: 352-392-1161; Website: https://shcc.ufl.edu/

University Police Department
Phone: 352-392-1111 (or 911 for emergencies); Website: http://www.police.ufl.edu/

UF Health Shands Emergency Room/Trauma Center
Phone: 352-733-0111; Website: https://ufhealth.org/emergency-room-trauma-center
Location: 1515 SW Archer Road, Gainesville, FL, 32608

GatorWell Health Promotion Services
Phone: 352-273-4450; Website: https://gatorwell.ufsa.ufl.edu/

Academic Resources

E-learning Technical Support
Email: helpdesk@ufl.edu; Phone: 352-392-4357; Website: https://helpdesk.ufl.edu/

Career Connections Center
Phone: 352-392-1601; Website: https://career.ufl.edu/
Location: Reitz Union, Suite 1300

Library Support
Website: https://uflib.ufl.edu/
Teaching Center
Phone: 352-392-2010 or 352-392-6420; Website: https://teachingcenter.ufl.edu/
Location: Broward Hall

Writing Studio
Phone: 352-846-1138; Website: https://writing.ufl.edu/writing-studio/
Location: 2215 Turlington Hall

Student Complaints (On-Campus)
Website: https://sccr.dso.ufl.edu/policies/student-honor-%20code-student-conduct-code/

Student Complaints (On-Line)
Website: https://distance.ufl.edu/state-authorization-status/#student-complaint