# CURRICULUM VITAE: JESSICA E PILARCZYK

Division of Marine Science, Univ. of Southern Mississippi, 1020 Balch Blvd., Stennis Space Center, MS, 39529, USA; Tel: 228.688.2014; E-mail: jessica.pilarczyk@usm.edu

## EDUCATION

2006 – 2011: PhD (Geology; upgraded from MSc), McMaster University

1999 – 2004: BSc (Earth & environmental sciences, minor in biology), McMaster University

## EMPLOYMENT HISTORY

2016-: **Assistant Professor**, Division of Marine Science, School of Ocean Science & Technology, University of Southern Mississippi, MS, USA

2011-2016 **Postdoctoral Associate**, Department of Marine and Coastal Science, Rutgers University, New Brunswick, NJ, USA (transferred from University of Pennsylvania)

2012-2016 **Visiting Research Fellow**, Earth Observatory of Singapore, Nanyang Technological University, Singapore

2011-2012: **Endeavour Research Fellow**, Australia-Pacific Tsunami Research Centre, School of Biological, Earth and Environmental Sciences, University of New South Wales, Australia

## AWARDS

- Japan Society for the Promotion of Science (JSPS) Fellowship, 2015
- Australian Government Endeavour Research Fellowship, 2011-2012
- Outstanding Achievements in Teaching Award, 2002

### MEDIA

- "Sumatra tsunami threat remains", **Science**, 23 December 2013; http://news.sciencemag.org/archaeology/2013/12/sumatra-tsunami-threat-remains#disqus_thread
- "Sumatra coastal cave records stunning tsunami history", **BBC News** – Science & Environment, 11 December 2013; http://www.bbc.co.uk/news/science-environment-25269698
- "Was that a tsunami or a hurricane?", **Earth Explorer Online Magazine**, 5 November 2013; http://www.earthexplorer.com/2013/Was_that_a_tsunami_or_a_hurricane.asp

## CONVENED SESSIONS AND INVITED LECTURES

- *Convened sessions*: Geological records of extreme wave events, European Geosciences Union (EGU) General Assembly, Vienna, Austria, 17 – 22 April 2016, and 23 – 28 April 2017; Sedimentary archives of subduction zone earthquakes and tsunamis from coastlines of the Pacific Ocean, XIX INQUA Congress, Nagoya, Japan, 27 July – 2 August 2015; Sea-level changes from minutes to millennia (Session T30), Geological Society of America Annual Meeting, Vancouver, Canada, 19-22 October 2014
- *Invited lectures*: Mexican Geophysical Union (2016); University of Tsukuba, Japan (2015); Geological Society of America (GSA) Annual Meeting (2014); Rutgers University, NJ (2014); West Chester University, PA (2014); U.S. Geological Survey (USGS) at St. Petersburg, FL (2013); Universidad Catolica de Valparaiso, Chile (2012; 2013); Massey University, New Zealand (2012); Chester County Citizens for Climate Protection, PA (2012); University of Southern Mississippi (2012; 2015); University of Pennsylvania (2011); McMaster University (2006; 2007; 2010)

## RESEARCH GRANTS

*Total research dollars awarded independently to Pilarczyk equate to **$732,137***

- **National Science Foundation (NSF) Funding:**
  - **NSF** Tectonics Grant. Collaborative Research: Paleoseismic evidence of earthquakes and tsunamis along the southern part of the Japan Trench; lead-PI; $270,740; 2016-2019
  - **NSF** Integrated Earth Systems (IES) Grant. Collaborative Research: Controls on along-strike variations in locked and creeping megathrust behavior at the Hikurangi convergent margin; PI; $293,292; 2017-2021
  - **NSF** Rapid Response Research (RAPID) Grant: Sedimentary record of Cyclone Pam from Vanuatu: implications for long-term cyclone and tsunami records for the South Pacific; lead-PI; $21,750; 2015-2016
  - **NSF** Rapid Response Research (RAPID) Grant: Typhoon Haiyan – Environmental Impact on the Philippines; Co-PI; $21,365; 2014-2015
  - **NSF** Early Concept Grant for Exploratory Research (EAGER): Geologic evidence of tsunamis originating from the Japan Trench's southern segment; Co-PI; $31,970; 2012-2014

- **Other Competitive Funding:**
  - **Japan Society for the Promotion of Science (JSPS; Japanese NSF)** Research Grant Supplement: Geologic evidence of tsunamis originating from the Japan Trench's southern segment: evidence from the Kujikuri Beaches, Chiba Prefecture, Japan; PI; $3,200; 2015
  - **Fondecyt (Chilean NSF)**: Is central Chile immune to giant earthquakes and tsunamis? (Grant #1110848); international collaborator; $7,200 for Pilarczyk; 2012-2014
  - **PADI Foundation** Research Grant: Identifying tsunami risk for coastlines of the South Pacific (Polynesia); PI; $9,500; 2010-2012
  - Loeblich and Tappan Student Research Award (**Cushman Foundation for Foraminiferal Research**): Microfossil taphonomic analysis as an indicator of paleo-tsunami deposits; PI; $1000, 2009-2010
  - **Ontario Graduate Scholarship** (OGS); $45,000; 2005, 2008-2009
  - **Geological Society of America (GSA)** Research Grant: Testing foraminiferal taphonomy and stable isotope analysis ($\delta^{13}C$ and $\delta^{18}0$) as a paleo-tsunami indicator for arid environments: Sur Lagoon, Sultanate of Oman; PI; $3,120; 2008-2009
  - **Natural Sciences and Engineering Research Council of Canada** (NSERC) Canada Graduate Scholarship (CGS); 2007-2008; $17,500
  - **Canadian Meteorological and Oceanographic Scholarship** (NSERC supplement); 2007-2008; $5,000
  - Other funding from **Cushman Foundation**, **United Nations**, and **McMaster University**; $1500

## ACADEMIC SERVICE

- Guest Editor, *Marine Geology* Special Issue on Extreme Waves, 2016
- Manuscript/proposal reviewer for *NSF*, *Proceedings of the National Academy of Sciences* (PNAS), *Geology, Nature Communications, Nature Scientific Reports, Sedimentology, Journal of Foraminiferal Research*, *Marine Micropaleontology*, *Pure and Applied Geophysics*, *Palaeogeography Palaeoclimatology Palaeoecology*, *Holocene*, *Quaternary Research*, *Quaternary Science Reviews*

- Member of the following societies: American Geophysical Union (AGU); American Quaternary Association (AMQUA); Asia Oceania Geosciences Society (AOGS); Cushman Foundation for Foraminiferal Research; The Explorers Club (SM'11); Geological Society of America (GSA); Paleontological Society
- Outreach Committee, Chair, University of Southern Mississippi, 2016 -:
- Academic curriculum committee, Faculty member, University of Southern Mississippi, 2016-:
- Chief Organizer of the first School of Geography & Earth Science's Research Forum, 2007-2008
- Graduate Teaching Assistant (TA) workshop leader, 2006

## OUTREACH ACTIVITIES

- Co-PI for Earthwatch, co-lead a two-week field course for high school students covering the concepts of sea level and climate change research in Chesapeake Bay, MD, 2014
- Invited Speaker, Rutgers University Alumni event at President Barchi's Residence, 2014
- Visiting Scientist, 4-H Climate & Environmental Change Teen Summit, Rutgers University, 2014
- Mentored undergraduate research internship students, University of Pennsylvania, 2012-2013
- Public lecture to the Chester County Citizens for Climate Protection, West Chester, PA, 2012
- High School Outreach Committee representative, McMaster University, 2006-2007

## STUDENTS SUPERVISED

- *University of Southern Mississippi*: Thomas Kosciuch (PhD, current); Anne Griffis (MS, current); Stephen Mitchell (Hons BSc, current)
- *Rutgers University*: Tiffany Otai (BSc, 2015)

## PUBLICATIONS

### Refereed Articles in journals (students supervised are underlined)

1. Soria, J.L.A., Switzer, A.D., **Pilarczyk, J.E.**, Siringan, F.P., Khan, N.S., Fritz, H.M., *in review*. Typhoon Haiyan sedimentary records with hybrid signatures from Leyte Gulf coastlines. *Sedimentary Geology*.
2. Rubin, C.M., Horton, B.P., Sieh, K., **Pilarczyk, J.E.**, Daly, P., Ismail, N., Parnell, A., *in review*. Variable recurrence of giant tsunamigenic earthquakes from a 7,500-year cave record on the northwestern coast of Aceh, Sumatra. *Nature Communications*.
3. Kosciuch, T.J., **Pilarczyk, J.E.**, Hong, I., Fritz, H.M., Horton, B.P., Rarai, A., Harrison, M.J., Jockley, F.R., *in review*. Foraminifera reveal a shallow nearshore origin for overwash sediments deposited by Tropical Cyclone Pam in Vanuatu (South Pacific). *Marine Geology*.
4. Hong, I., **Pilarczyk, J.E.**, Horton, B.P., Fritz, H.M., Kosciuch, T.J., Wallace, D.J, Dike, C., Rarai, A., Harrison, M.J., Jockley, F.R., *in review*. Sedimentological characteristics of the 2015 Tropical Cyclone Pam overwash sediments from Vanuatu, South Pacific. *Marine Geology*.
5. Soria, J.L.A., Switzer, A.D., **Pilarczyk, J.E.**, Tang, H., Weiss, R., Siringan, F., Manglicmot, M., Gallentes, A., Lau, A.Y., Lin, A.C.Y., Ling, T.K.W., *in review*. Typhoon Haiyan storm surge carried two distinct sediment assemblages on the carbonate coast of Hernani, Samar, central Philippines. *Marine Geology.*
6. Matsumoto, D., Sawai, Y., Yamada, M., Namegaya, Y., Shinozaki, T., Takeda, D., Fujino, S., Tanigawa, K., Nakamura, A., **Pilarczyk, J.E.**, 2016. Erosion and sedimentation during the September 2015 flooding of the Kinu River, central Japan. *Nature Scientific Reports* 6, 34168.

7. **Pilarczyk, J.E.**, Horton, B.P., Soria, J.L.A., Switzer, A.D., Siringan, F., Fritz, H.M., Khan, N.S., Ildefonso, S., Doctor, A.A., Garcia, M.L., 2016. Micropaleontology of the 2013 Typhoon Haiyan deposit from the Leyte Gulf, Philippines. *Sedimentary Geology* 339, 104-114.
8. Kelsey, H., Engelhart, S.E., **Pilarczyk, J.E.**, Horton, B.P., Rubin, C.M., Daryono, M., Ismail, N., Hawkes, A.D., Bernhardt, C., Cahill, N., 2015. Accommodation space, relative sea level, and the archiving of paleo-earthquakes along subduction zones. *Geology* 43, 675-678.
9. Sieh, K., Daly, P., McKinnon, E.E., **Pilarczyk, J.E.**, Chiang, H.-W., Horton, B.P., Rubin, C.M., Shen, C.-C., Ismail, N., Vane, C., 2015. Penultimate predecessors of the 2004 Indian Ocean tsunami in Aceh, Sumatra: stratigraphic, archaeological and historical evidence. *Journal of Geophysical Research – Solid Earth* 120, 308-325.
10. Dura, T., Cisternas, M., Horton, B.P., Ely, L.L., Wesson, R.L., Nelson, A.R., **Pilarczyk, J.E.**, 2015. Coastal evidence of mid-Holocene earthquakes and tsunamis in central Chile. *Quaternary Science Reviews* 113, 93-111
11. **Pilarczyk, J.E.**, Dura, T., Horton, B.P., Engelhart, S.E., Kemp, A.C., Sawai, Y., 2014. Microfossils in coastal environments as indicators of paleo- earthquakes, tsunamis and storms. *Palaeogeography Palaeoclimatology Palaeoecology* 413, 144-157.
12. **Pilarczyk, J.E.**, Goff, J., Mountjoy, J., Lamarche, G., Pelletier, B., Horton, B.P., 2014. Sediment transport trends from a tropical Pacific lagoon as indicated by *Homotrema rubra* taphonomy: Wallis Island, Polynesia. *Marine Micropaleontology* 109, 21-29.
13. Brown, A., Reinhardt, E.G., van Hengstum, P.J., **Pilarczyk, J.E.**, 2014. A coastal Yucatan sinkhole records intense hurricane events. *Journal of Coastal Research* 30(2), 418-428.
14. **Pilarczyk, J.E.**, Horton, B.P., Witter, R.C., Vane, C.H., Goff, J., Chagué-Goff, C., 2012. Sedimentary and foraminiferal evidence of the 2011 Tohoku-oki tsunami on the Sendai coastal plain, Japan. *Sedimentary Geology* 282, 78-89.
15. **Pilarczyk, J.E.**, Reinhardt, E.G., 2012. *Homotrema rubrum* (Lamarck) taphonomy as an overwash indicator in marine ponds on Anegada, British Virgin Islands. *Natural Hazards* 63 (1), 85-100.
16. Reinhardt, E.G., **Pilarczyk, J.E.**, Brown, A., 2012. Probable tsunami origin for a shell and sand sheet from marine ponds on Anegada, British Virgin Islands. *Natural Hazards* 63 (1), 101-117.
17. **Pilarczyk, J.E.**, Reinhardt, E.G., 2012. Testing foraminiferal taphonomy as a tsunami indicator in a shallow arid system lagoon: Sur, Sultanate of Oman. *Marine Geology* 295-298, 128-136.
18. **Pilarczyk, J.E.**, Reinhardt, E.G., Boyce, J.I., Schwarcz, H.P., Donato, S.V., 2011. Assessing surficial foraminiferal distributions as an overwash indicator in Sur Lagoon, Sultanate of Oman. *Marine Micropaleontology* 80, 62-73.
19. Donato, S.V., Reinhardt, E.G., Boyce, J.I., **Pilarczyk, J.E.**, Jupp, B.P. 2009. Particle-size distribution of inferred tsunami deposits in Sur Lagoon, Sultanate of Oman. *Marine Geology* 257, 54-64.

### Chapters within books of edited volumes

1. **Pilarczyk, J.E.**, Horton, B.P., 2015. Mollusca. *In*: Shennan, I., Horton, B.P., Long, A. (eds.), Sea Level Handbook. John Wiley and Sons.

### Other publications

1. **Pilarczyk, J.E.**, Cochran, U., Litchfield, N., Clark, K., Hayward, B., Lamarche, G., Horton, B.P., 2013. White paper: Paleoseismology at the Hikurangi Margin. *Geodynamic Processes at Rifting and Subducting Margins (GeoPRISMS)*.

2. Horton, B.P., MacInnes, B., Gonzalez, F., Hemphill-Haley, E., Switzer, A., Witter, R., Tanioka, Y., Bourgeois, J., Weiss, R., **Pilarczyk, J.E.**, 2012. White paper: Long-term records of tsunamis (and storms) with insights from recent events. *National Science Foundation (NSF)*.

### Conference abstracts (first author only)

1. **Pilarczyk, J.E.**, Reinhardt, E.G., Donato, S.V. Paleotsunami records from arid environments: an example from Sur Lagoon, Oman. IGCP Project 639 Meeting "Sea Level Change from Minutes to Millennia". 9 - 14 November 2016. Muscat, Oman.
2. **Pilarczyk, J.E.**, Sawai, Y., Namegaya, Y., Shinozaki, T., Tanigawa, K., Matsumoto, D., Tamura, T., Fujiwara, O., Shishikura, M., Horton, B.P., Dura, T. Paleoseismic evidence of earthquakes and tsunamis along the southern part of the Japan Trench. Mexican Geophysical Union (UGM) Annual Meeting. 30 October – 4 November 2016. Puerto Vallarta, Mexico. ***Invited talk***
3. **Pilarczyk, J.E.**, Sawai, Y., Horton, B.P., Namegaya, Y., Shinozaki, T., Tanigawa, K., Matsumoto, D., Dura, T., Fujiwara, O., Shishikura, M., 2016. Paleoseismic evidence of earthquakes and tsunamis along the southern part of the Japan Trench. European Geosciences Union (EGU) General Assembly. April 17 – 22. Vienna, Austria.
4. **Pilarczyk, J.E.**, Horton, B.P., Soria, L.J., Switzer, A., Fritz, H.M., Siringan, F., Khan, N.S., Ildefonso, S., Ramos, R., Doctor, A., Garcia, M., 2016. Sedimentary and microfossil record of the 2013 Typhoon Haiyan deposit from the Philippines. AGU Ocean Sciences Meeting. February 21 – 26. New Orleans, LA, USA.
5. **Pilarczyk, J.E.**, Soria, L.J., Switzer, A., Siringan, F., Khan, N.S., Fritz, H.M., Horton, B.P., Ildefonso, S., Ramos, R., Doctor, A.A., Garcia, M.L., 2015. Sedimentary and microfossil record of the 2013 Typhoon Haiyan deposit from the Leyte Gulf, Philippines. XIX INQUA Congress. July 27 – August 2. Nagoya, Japan.
6. **Pilarczyk, J.E.**, Sawai, Y., Horton, B.P., Namegaya, Y., Tanigawa, K., Dura, T., Fujiwara, O., Shishikura, M., Shinozaki, T., Vane, C.H., 2015. Geologic evidence of tsunamis impacting coastlines adjacent to the southern part of the Japan Trench: a case study from the Kujukuri Beaches, Japan. XIX INQUA Congress. July 27 – August 2. Nagoya, Japan.
7. **Pilarczyk, J.E.**, Sawai, Y., Horton, B.P., Namegaya, Y., Shinozaki, T., Tanigawa, K., Fujiwara, O., Shishikura, M., Matsumoto, D., Dura, T., 2015. Geologic evidence of tsunamis in Kujukuri. Japan Geoscience Union. May 24-28. Chiba City, Japan.
8. **Pilarczyk, J.E.**, Sawai, Y., Horton, B.P., Namegaya, Y., Shinozaki, T., Tanigawa, K., Fujiwara, O., Matsumoto, D., Dura, T., 2015. Assessing modern sediment distributions as tsunami indicators for coastlines facing the Japan Trench. Japan Geoscience Union. May 24-28. Chiba City, Japan.
9. **Pilarczyk, J.E.**, Soria, L., Switzer, A., Siringan, F., Khan, N., Fritz, H., 2014. Characterizing the 2013 Typhoon Haiyan deposit from the Leyte Gulf, Philippines: Implications for long-term typhoon records. Mid-Atlantic Regional Climate Symposium. November 21, 2014. New Brunswick, NJ.
10. **Pilarczyk, J.E.**, Sawai, Y., Horton, B.P., Tanigawa, K., Dura, T., Namegaya, Y., Fujiwara, O., Shishikura, M., Shinozaki, T., Vane, C.H., 2014. A 1,000-year geological record of tsunamis impacting coastlines facing the Japan Trench: evidence from the Kujukuri Beaches, Chiba Prefecture. Geological Society of America (GSA) Annual Meeting. October 19-22, 2014. Vancouver, Canada. ***Invited talk***
11. **Pilarczyk, J.E.**, Cisternas, M., Horton, B.P., Ely, L., Dura, T., 2014. Foraminiferal evidence supports a tsunami origin for a 2-km-inland buried sand layer in Central Chile. FORAMS 2014, the International Symposium on Foraminfera. January 19-34, 2014. Concepcion, Chile.

12. **Pilarczyk, J.E.**, Sawai, Y., Horton, B.P., Namegaya, Y., Dura, T., Fujiwara, O., Vane, C.H., 2014. Assessing modern foraminiferal distributions as a tsunami indicator for coastlines facing the Japan Trench. FORAMS 2014, the International Symposium on Foraminfera. January 19-34, 2014. Concepcion, Chile.
13. **Pilarczyk, J.E.**, Rubin, C.M., Sieh, K.E., Horton, B.P., Daly, P., Ismail, N., 2013. Predecessors of the 2004 Indian Ocean tsunami in a coastal cave, Aceh Province, Sumatra. American Geophysical Union (AGU), December 9-13, 2013. San Francisco, CA.
14. **Pilarczyk, J.E.**, 2013. Foraminifera as indicators of paleoearthquakes and tsunamis. GeoPRISMS Planning Workshop for the New Zealand Primary Site. April 15-17, 2013. Wellington, New Zealand.
15. **Pilarczyk, J.E.**, Horton, B.P., Witter, R.C., Vane, C.H., Goff, J., Chagué-Goff, C., 2012. Sedimentary and foraminiferal evidence of the 2011 Tohoku-oki tsunami on the Sendai coastal plain, Japan. Geological Society of America. November 4-7, 2012. Charlotte, NC.
16. **Pilarczyk, J.E.**, Horton, B.P., Witter, R.C., Vane, C.H., 2012. A comparison of the 2011 Tōhoku-oki and A.D. 869 Jōgan tsunami events on the Sendai coastal plain, Japan: implications for post-depositional change. AMTRAK Club Conference: Soil to Sea Geomorphology. 18-19 May 2012. Philadelphia, PA.
17. **Pilarczyk, J.E.**, Horton, B.P., Witter, R.C., Vane, C.H., Goff, J.R., Chagué-Goff, C. The applicability of fossil foraminifera as a paleo-tsunami indicator: evidence from the 2011 Tohoku and A.D. 869 Jogan tsunami events. American Geophysical Union. 5-9 Dec 2011. San Francisco, CA.
18. **Pilarczyk, J.E.**, Reinhardt, E.G., *Homotrema rubrum* (Lamarck) taphonomy as an overwash indicator in coastal ponds from Anegada, British Virgin Islands. Geological Society of America. October 31 – November 3, 2010. Denver, Colorado.
19. **Pilarczyk, J.E.**, Reinhardt, E.G. Testing Foraminiferal Taphonomy as a Paleo-Tsunami Indicator in an Arid System Lagoon: Sur Lagoon, Sultanate of Oman. Geological Association of Canada – American Geophysical Union. May 24-27, 2009. Toronto, Canada.
20. **Pilarczyk, J.E.**, Reinhardt, E.G., Schwarcz, H.P. The Control of Elevation on Foraminiferal, Geochemical and Sedimentological Parameters in a Shallow Lagoon: Sur, Sultanate of Oman. American Geophysical Union. December 14-19, 2008. San Francisco, CA.
21. **Pilarczyk, J.E.**, Reinhardt, E. Assessing the Link Between Elevation and Taphonomic Trends of Benthic Foraminifera in a Lagoon. Geological Assoc. of Canada/Mineralogical Assoc. of Canada. May 26-28, 2008. Quebec City, Canada.
22. **Pilarczyk, J.E**., Reinhardt, E.G. Tsunami Detection in the Middle East: Examining the 1945 Makran Trench Tsunamite. Advancement for Earth Sci. Research (AESRC). April 10-11, 2008. Ottawa, Canada.
23. **Pilarczyk, J.E**., Reinhardt, E.G. Characterization of Modern Benthic Foraminiferal Assemblages for Paleo-tsunami Detection in Sur Lagoon, Oman. Geological Society of America. October 28-31, 2007. Denver, Colorado.
24. **Pilarczyk, J.E.**, Rink, W.J. Loggerhead Sea Turtle Nesting Preference for High Geomagnetic Field and Field Gradients. CAGONT: Ontario Division of the Canadian Association of Geographers. October 13-14, 2006. McMaster University, Hamilton, ON.
25. **Pilarczyk, J.E.**, Boyce, J.I., Rink, W.J. Regional Scale Studies of Loggerhead Nesting Preference for High Geomagnetic Field Intensity. 24th Annual Symposium on Sea Turtle Conservation and Biology. February 22-29, 2004. San Jose, Costa Rica.

## RESEARCH COLLABORATORS

Earth Observatory of Singapore (*Daly, Gouramanis, Rubin, Sieh, Soria, Switzer),* U.S. Geological Survey (*Atwater*, *Nelson*, W*itter*), Geological Survey of Japan (*Matsumoto, Namegaya, Sawai, Tanigawa*), Rutgers University (*Dura, Horton, Shaw*), British Geological Survey (*Vane*), Universidad Catolica de

Valparaıso, Chile (*Cisternas*), McMaster University (*Reinhardt*), University of Sydney (*Dominey-Howes*), University of New South Wales, Australia (*Goff, Chagué-Goff*), Smithsonian Institution (*Megonigal*), West Chester University (*Nikitina*), Tufts (*Kemp*), University of Rhode Island (*Engelhart*), University of Southern Mississippi (*Wallace*), Humboldt State University (*Kelsey*), University of North Carolina, Wilmington (*Hawkes*), University of Philippines, Diliman (*Siringan)*, GNS Science New Zealand (*Clark, Cochran, Litchfield*)

## TEACHING EXPERIENCE

2017: **Instructor**, University of Southern Mississippi, USA

Coastal Sediments: Reconstructing Coastal Change for graduate (MAR 684) and undergraduate (MAR 620) students

2016: **Co-Instructor**, University of Ottawa/Carleton University field course to San Salvador, Bahamas

2011–2013: **Recurring Guest Lecturer**, University of Pennsylvania, USA
Coasts (GEOL-419-001); Climate Change (ENVS-204-001); Oceanography (GEOL-130-001)

2012: **Field Course Lecturer**, University of New South Wales, Australia
Natural Hazards field school to New Zealand (GEOS 3621)

2006-2011: **Field/Teaching Assistant** for field courses, McMaster University, Canada

Undergraduate geology and marine science field schools: Northern Ontario, Canada (GEO 3FE3; 2006, 2009, 2010); Sultanate of Oman (GEO 4FE3; 2007); Martha's Vineyard, USA (GEO 4E03; 2006); Florida, USA (GEO 4E03; 2010); Bahamas (GEO 4E03; 2011)

2006: McMaster University Teaching Assistant (TA) workshop leader (*Invited)

2006: **Completed Education 750 – Principles and Practices of University Teaching course** (graduate level), McMaster University, Canada

2002-2011: **Teaching Assistant**, McMaster University, Canada

## VOLUNTEER EXPERIENCE

2011: **Habitat for Humanity**, Negombo, Sri Lanka

2010: **Habitat for Humanity**, Phnom Penh, Cambodia

2005-2008: **Terry Fox Foundation for Cancer Research**, Milton, Ontario, Canada