

# JULIA S. REECE

Associate Professor

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## RESEARCH STATEMENT

My research interests include the mechanics and transport properties of sediments and sedimentary rocks, subsurface pressures/stresses, submarine landslides, physical and chemical diagenesis, sediment transport in coastal and fluvial systems, as well as unconventional shale gas reservoirs. I use field samples and data and employ a suite of laboratory techniques including sedimentological and geotechnical experimentation (grain size, Atterberg Limits, uniaxial consolidation) and micro-scale imaging techniques (petrographic and scanning electron microscopy). Research areas include Gulf of Mexico, Cascadia, Nankai Trough offshore Japan, and the Midland Basin (Spraberry and Wolfcamp Formations). I am currently expanding my research interests and collaborations with other groups around campus. Among those is the Extraterrestrial Engineering and Construction Research (EXTEC) initiative, which is a partnership between NASA, academia, industry, and labs and facilities in the TAMU Colleges of Engineering, Architecture, and Geosciences.

## EDUCATION

- 2011     **Ph.D. in Geosciences**, The University of Texas at Austin, Austin, TX  
Dissertation title: *Compression and permeability behavior of natural mudstones*  
Advisor: Dr. Peter Flemings
- 2006     **Diplom (M.S.) Geosciences**, University of Bremen, Bremen, Germany  
Thesis title: *Numerische Simulation von Fluidbewegungen im obersten Sedimentstockwerk in Abhängigkeit von physikalischen Sedimenteigenschaften*  
Advisor: Dr. Katrin Huhn
- 2004     **B.S. Geosciences**, University of Bremen, Bremen, Germany  
Thesis title: *Sedimentationsprozesse am Kontinentalrand nördlich von Spitzbergen: Rekonstruktion nach Logging-Daten*  
Advisors: Drs. Tobias Mörz and Rüdiger Stein

## ACADEMIC APPOINTMENTS

- 2022 – present     **Associate Professor**, Dept. of Geology and Geophysics, Texas A&M University
- 2014 – 2022     **Assistant Professor**, Dept. of Geology and Geophysics, Texas A&M University
- 2013 – 2014     **Postdoctoral Scholar**, Dept. of Geophysics, Stanford University
- 2012 – 2013     **Postdoctoral Fellow**, Bureau of Economic Geology, The University of Texas at Austin
- 2006 – 2011     **Graduate Research and Teaching Assistant**, Jackson School of Geosciences, The University of Texas at Austin
- 2007     **Summer Intern**, Shell International Exploration and Production, Inc., Houston, TX
- 2004 – 2006     **Graduate Student Assistant**, Department of Geosciences, University of Bremen
- 2001 – 2004     **Undergraduate Student Assistant**, Department of Geosciences, University of Bremen

## AWARDS & FELLOWSHIPS

2021	Dean's Distinguished Achievement Award for Excellence in Teaching
2020 – 2025	NSF CAREER Award
2019 – 2020	TAMU Montague - Center for Teaching Excellence Scholar (\$6,500)
2018 – 2019	IODP Ocean Discovery Lecturer
2012	Author Achievement Award, Bureau of Economic Geology, UT Austin
2011	Best JSG Student Paper Award, UT Austin, Dept. of Geological Science
2011	Best Ph.D. technical talk, UT Austin, Dept. of Geological Science
2011	Ewing/Worzel Fellowship, UT Institute for Geophysics
2010	AGU Outstanding Student Paper Award (AGU Fall Meeting)
2010 – 2011	IODP Schlanger Ocean Drilling Fellowship, Consortium for Ocean Leadership (\$28,000)
2010	Outstanding Teaching Assistant Award, UT Austin, Dept. of Geological Science
2009	Hess Fellowship
2008	Ewing/Worzel Fellowship, The University of Texas at Austin Institute for Geophysics
2008	Chevron Excellence Award
2008	Ewing/Worzel Fellowship, The University of Texas at Austin Institute for Geophysics
2007	Chevron Excellence Award
2007	ConocoPhillips Distinguished GeoFluids Fellowship

## RESEARCH GRANT HISTORY

### Federal Funding

#### Funded Grants

- 04/2022 – 08/2022 *Full proposal for multidisciplinary IODP investigations along a crustal flow-line across the western flank of the southern Mid-Atlantic Ridge: The South Atlantic Transect (3 submissions: 853 Full, Full-2, Full-2 Add.), National Science Foundation, International Ocean Discovery Program (IODP): Principal Lead Proponent R. Coggon (Univ. of Southampton), Data Lead Proponent R. Reece (TAMU), Proponents G. Christeson (Univ. of Texas Inst. for Geophysics), D. Teagle (Univ. of Southampton), B. K. Reese (TAMU Corpus Christi), J. Sylvan (TAMU), M. Leckie (Univ. of Massachusetts), N. Hayman (Univ. of Texas Inst. for Geophysics), J. Zachos (Univ. of Calif. Santa Cruz), B. Briggs (Univ. of Alaska Anchorage), M. Huber (Univ. of New Hampshire), **J. Reece** (TAMU), S. Rausch (Univ. of Bremen), J. Kirkpatrick (Univ. of Rhode Island), M. Harris (Univ. of Plymouth), D. Thomas (TAMU), M. Katz (Rensselaer Polytechnic Inst.), C. Lowery (Univ. of Texas Inst. for Geophysics), C. Heil (Univ. of Rhode Island), and W. Gilhooly (Indiana Univ. Purdue Univ.). No funding requested. Submitted 10/03/2016. **Now scheduled as IODP Expeditions 390 and 393 for April – August 2022 with J. Reece being co-chief on IODP Exp. 393.***
- 06/2020 – 05/2025 *CAREER: Microfossils as Drivers for Submarine Landslides?, National Science Foundation, Ocean Sciences: P.I. **J. Reece** (TAMU). \$526,054. Submitted 07/19/2019.*

- 09/2015 – 08/2019 *Effects of microbial activity on mechanical and transport properties of mudstones*, American Chemical Society - Petroleum Research Fund - Doctoral New Investigator: P.I. **J. Reece** (TAMU). \$110,000. Submitted 09/01/2014.
- 09/2010 – 08/2011 *Resedimentation of Nankai mudstones to illuminate lithologic control on permeability and compressibility*, National Science Foundation, Consortium for Ocean Leadership, Schlanger Ocean Drilling Fellowship Award: P.I. **J. Schneider** (Univ. of Texas), Ph.D. Supervisor P. Flemings (Univ. of Texas). \$28,000. Submitted 11/13/2009.

### **Declined Grants**

- 09/2017 – 08/2020 *Collaborative Research: The effect of earthquake energy on consolidation and shear strength of continental slope sediments: Testing the 'seismic strengthening' hypothesis*, National Science Foundation: P.I. D. Sawyer (Ohio State Univ.), Co-P.I. **J. Reece** (TAMU). \$440,886 total; \$245,604 (TAMU), \$195,282 (Ohio State Univ.). Submitted 08/15/2016.
- TBD *Neogene to Quaternary climate, sedimentation, and ocean productivity along the NW African continental margin (3 submissions: 933 Pre, Full, Full-2)*, NSF, International Ocean Discovery Program (IODP): Principal Lead Proponent T. Bickert (Univ. of Bremen), Data Lead Proponent S. Krastel (Univ. of Kiel), Proponents I. Bouimetarhan (Univ. of Bremen), A. J. Crocker (Univ. of Southampton), P. deMenocal (Columbia Univ.), L. Dupont (Univ. of Bremen), A. Georgiopoulou (Univ. of Brighton), T. D. Herbert (Brown Univ.), A. N. Meckler (Univ. of Bergen), S. Mulitza (Univ. of Bremen), **J. Reece** (TAMU), O. Romero (Univ. of Bremen), E. Schefuß (Univ. of Bremen), T. Schwenk (Univ. of Bremen), P. J. Talling (Univ. of Durham), M. Urlaub (GEOMAR), T. Westerhold (Univ. of Bremen), P. A. Wilson (Univ. of Southampton). No funding requested. Submitted 03/31/2019.
- TBD *The Role of Pressure and Temperature in Retrogressive Landslides in the Western North Atlantic (930-Full)*, NSF, International Ocean Discovery Program (IODP): Principal Lead Proponent D. Sawyer (Ohio State Univ.), Data Lead Proponent J. Hill (USGS), Proponents R. Colwell (Oregon State Univ.), A. Cook (Ohio State Univ.), W. Fortin (Columbia Univ.), M. Hornbach (Southern Methodist Univ.), S. Klasek (Oregon State Univ.), N. Miller (USGS), M. Nikolinakou (Univ. of Texas), A. Portnov (Ohio State Univ.), **J. Reece** (TAMU), J. Schnyder (Univ. of Miami), N. Slowey (TAMU), B. Phrampus (Oregon State Univ.), J. Gibson (Columbia Univ.), C. Jackson (Imperial College London), J. Chaytor (USGS). No funding requested. Submitted 04/02/2018.

## **Texas A&M Research Funding**

### **Funded Grants**

- 01/2020 – 12/2021 *Geomaterial characterization of lunar simulants with agglutinate particles*, T3, Triads for Transformation, Texas A&M University: P.I. **J. Reece** (TAMU), Co-P.I.s B. Birgisson (TAMU), Y. Deng (TAMU). \$32,000 total. Submitted 12/06/2019.

## **Declined Grants**

- 08/2019 – 07/2022 *Environmental disturbance and ecological response on the Texas coast: Building resilience via lessons from the past (3 submissions: pre-proposal, one-pager, and full proposal)*, X-Grant Round 2, Texas A&M University: P.I. C. Belanger (TAMU), Co-P.I.s P. van Hengstum (TAMU), T. Dellapenna (TAMU), Y. Zhang (TAMU), H. Thakar (TAMU), D. Retchless (TAMU), A. Armitage (TAMU), R. Eytan (TAMU), E. Grossman (TAMU), K. Kaiser (TAMU), F. Marcantonio (TAMU), N. Perez (TAMU), A. Quigg (TAMU), **J. Reece** (TAMU), D. Roelke (TAMU), A. Ross (TAMU), C. Thompson (TAMU). \$1,500,000 total; \$16,526 (Reece). Submitted 05/06/2019.
- 08/2018 – 07/2020 *The Future of Texas: Building future resiliency by diagnosing the drivers and recurrence of Hurricanes, Hypoxia, and Hydroclimate (superfloods vs. megadroughts) over the last 3000 years (2 submissions: pre-proposal and one-pager)*, X-Grant Round 1, Texas A&M University: P.I. P. van Hengstum (TAMUG), Co-P.I.s T. Dellapenna (TAMUG), R. Eytan (TAMUG), E. Grossman (TAMU), C. Belanger (TAMU), N. Perez (TAMU), **J. Reece** (TAMU), F. Marcantonio (TAMU), Y. Zhang (TAMU), D. Roelke (TAMU). \$ TBD. Submitted 04/02/2018.

## **Texas A&M Teaching Funding**

- 2019 – 2020 TAMU Montague – Center for Teaching Excellence Scholar, P.I. **J. Reece**, \$6,500.
- Fall 2016 *Understanding mechanical behavior of mudrock mixtures*, TAMU College of Geosciences, High Impact Learning Experiences (HILE) for Undergraduate Research, P.I. **J. Reece**, \$1200
- Fall 2016 *Travel grant for Melissa Altobelli to attend and present at the American Geophysical Union (AGU) Fall Meeting in San Francisco in December 2016*, TAMU College of Geosciences, High Impact Learning Experiences (HILE) for Undergraduate Research, P.I. **J. Reece**, \$600
- Spring 2016 *Heterogeneities in mudstones*, TAMU College of Geosciences, High Impact Learning Experiences (HILE) for Undergraduate Research, P.I. **J. Reece**, \$600
- Spring 2016 *Relationship between porosity, sorting, and stress in IODP cores*, TAMU College of Geosciences, High Impact Learning Experiences (HILE) for Undergraduate Research, P.I. **J. Reece**, \$600

## **PUBLICATIONS**

(\*Ph.D. student advisee)

Researcher ID: H-8743-2012; Google Scholar H-index: 11; Total Citations: 481

## **Accepted**

- [19] \*Eakin, A.L., **Reece, J.S.**, Milliken, K.L., Locklair, R., Rathbun, A. (accepted). Chemostratigraphic facies as indicators of cement diagenesis in mudrocks of the Permian Spraberry and Wolfcamp Formations, west Texas, submitted for publication to *AAPG Bulletin*.

## Published

- [18] Coggon, R.M., Sylvan, J.B., Teagle, D.A.H., **Reece, J.S.**, Christeson, G.L., Estes, E.R., and Williams, T. (2022). Expedition 390/393 Scientific Prospectus Addendum: South Atlantic Transect, International Ocean Discovery Program, doi:10.14379/iodp.sp.390393add.2022.
- [17] \*Mills, N.T., **Reece, J.S.**, Tice, M.M., Sylvan, J.B. (2022). Hydromechanical effects of micro-organisms on fine-grained sediments during early burial, *Earth and Space Science*, 9, e2021EA002037, doi:10.1029/2021EA002037.
- [16] **Reece, J.S.** (2021). The impact of grain size on the hydromechanical behavior of mudstones, *Geochemistry, Geophysics, Geosystems*, 22(8), e2021GC009732, doi:10.1029/2021GC009732.
- [15] \*Mills, N.T., **Reece, J.S.**, Tice, M.M. (2021). Clay minerals modulate early carbonate diagenesis, *Geology*, 49(8), 1015-1019, doi:10.1130/G48713.1.
- [14] Daigle, H., **Reece, J.S.**, Flemings, P.B. (2020). A modified Swanson method to determine permeability from mercury intrusion data in marine muds, *Marine and Petroleum Geology*, 113, doi:10.1016/j.marpetgeo.2019.104155.
- [13] Daigle, H., **Reece, J.S.**, Flemings, P.B. (2019). Evolution of the percolation threshold in muds and mudrocks during burial, *Geophysical Research Letters*, 46, doi:10.1029/2019GL083723.
- [12] Casey, B., **Reece, J.S.**, Germaine, J.T. (2019). One-Dimensional Normal Compression Laws for Resedimented Mudrocks, *Marine and Petroleum Geology*, 103, 397-403, doi:10.1016/j.marpetgeo.2019.02.023.
- [11] Wu, W., **Reece, J.S.**, Gensterblum, Y., and Zoback, M.D. (2017). Permeability evolution of slowly slipping faults in shale reservoirs, *Geophysical Research Letters*, 44, doi:10.1002/2017GL075506.
- [10] Flemings, P.B., **Reece, J.S.**, Ditkof, J., Atkins, C.C., Sawyer, D.E. (2015). Data Report: Particle Size Analysis of Sediments in the Nankai Trough, IODP Expedition 319 Hole C009A, *In: Saffer, D., McNeill, L., Byrne, T., Araki, E., Toczko, S., Eguchi, N., Takahashi, K., and the Expedition 319 Scientists, Proc. IODP*, 319: Tokyo (Integrated Ocean Drilling Program Management International, Inc.), doi: 10.2204/iodp.proc.319.203.2015.
- [9] Daigle, H. and **Reece, J.S.** (2015). Permeability of two-component granular materials, *Transport in Porous Media*, Vol. 106, p. 523-544, doi:10.1007/s11242-014-0412-6.
- [8] Casey, B., Germaine, J.T., Flemings, P.B., **Reece, J.S.**, Gao, B., and Betts, W. (2013). Liquid limit as a predictor of mudrock permeability, *Marine and Petroleum Geology*, Vol. 44, p. 256-263, doi:10.1016/j.marpetgeo.2013.04.008.
- [7] **Reece, J.S.**, Flemings, P.B., and Germaine, J.T. (2013). Data Report: Permeability, compressibility, and microstructure of resedimented mudstone from IODP Expedition 322, Site C0011, *In: Saito, S., Underwood, M.B., Kubo, Y., and the Expedition 322 Scientists, Proc. IODP*, 322: Tokyo (Integrated Ocean Drilling Program Management International, Inc.), doi:10.2204/iodp.proc.322.205.2013.
- [6] **Reece, J.S.**, Flemings, P.B., Dugan, B., Long, H., and Germaine, J.T. (2012). Permeability-porosity relationships of shallow mudstones in the Ursa Basin, northern deepwater Gulf of Mexico, *Journal of Geophysical Research – Solid Earth*, 117, B12102, doi:10.1029/2012JB009438.
- [5] Day-Stirrat, R.J., Schleicher, A.M., **Schneider, J.**, Flemings, P.B., Germaine, J.T., van der Pluijm, B.A. (2011). Preferred orientation of phyllosilicates: Effects of composition and stress on resedimented mudstone microfabrics, *Journal of Structural Geology*, Vol. 33, No. 9, p. 1347-1358, doi:10.1016/j.jsg.2011.06.007.

- [4] **Schneider, J.**, Flemings, P.B., Day-Stirrat, R.J., Germaine, J.T. (2011). Insights into pore-scale controls on mudstone permeability through resedimentation experiments, *Geology*, Vol. 39, No. 11, p. 1011-1014, doi:10.1130/G32475.1.
- [3] **Schneider, J.**, Flemings, P.B., Dugan, B., Long, H., and Germaine, J.T. (2009). Overpressure and consolidation near the seafloor of Brazos-Trinity Basin IV, Northwest Deepwater Gulf of Mexico, *Journal of Geophysical Research – Solid Earth*, 114, B05102, doi:10.1029/2008JB005922.
- [2] Winkelmann, D., Geissler, W., **Schneider, J.**, Stein, R. (2008). Dynamics and timing of the Hinlopen/Yermak Megaslide north of Spitsbergen, Arctic Ocean, *Marine Geology*, 250, 34-50, doi:10.1016/j.margeo.2007.11.013.
- [1] Dugan, B., Flemings, P.B., Urgeles, R., Sawyer, D., Iturrino, G.J., Moore, J.C., **Schneider, J.** (2007). Physical Properties of Mass Transport Complexes in the Ursa Region, Northern Gulf of Mexico (IODP Expedition 308) Determined from Log, Core, and Seismic Data, *Proceedings 2007 Offshore Technology Conference*: Paper OTC 18704.

### In preparation

- [20] \*Eakin, A.L., **Reece, J.S.**, Milliken, K.L. (in prep.). Deviation from “normally-compacted” depth profiles: Quantifying chemical consolidation of the Permian Spraberry and Wolfcamp Formations, West Texas, *Journal of Sedimentary Research*.
- [19] \*Mills, N.T., **Reece, J.S.**, Tice, M.M., Sylvan, J.B. (in prep.). Microbially driven smectite-to-illite reaction and carbonate diagenesis in natural sediments during iron reduction.

### CONFERENCE ABSTRACTS/ PRESENTATIONS

(°undergraduate student advisee, \*Ph.D. student advisee, † postdoc advisee)

#### 2021

- [54] †Cardona, S., **Reece, J.S.**, Dugan, B., Wood, L., Nole, M., Georgiopoulou, A., Mountjoy, J., Underwood, M., Brunet, M., French, M., °Thompson, M., Couvin, B., and Gross, F. (2021), Near the brink: An example of a weak layer in the Tuaheni Landslide Complex, Hikurangi Margin, New Zealand, to be presented at 2021 Fall Meeting, AGU, New Orleans, Louisiana, December 13-17.
- [53] \*Mills, N.T., **Reece, J.S.**, Tice, M.M., and Sylvan, J.B. (2021), Hydromechanical effects of microorganisms on fine-grained sediments during early burial, to be presented at 2021 Fall Meeting, AGU, New Orleans, Louisiana, December 13-17.
- [52] \*Mills, N.T., **Reece, J.S.**, and Tice, M.M. (2021), Clay minerals modulate early carbonate diagenesis, to be presented at 2021 Fall Meeting, AGU, New Orleans, Louisiana, December 13-17.
- [51] \*Scott, W. and **Reece, J.S.** (2021), The influence of diatoms on mudstone hydromechanical properties and submarine slope stability, to be presented at 2021 Fall Meeting, AGU, New Orleans, Louisiana, December 13-17.
- [50] **Reece, J.S.** (2021), The impact of grain size on the hydromechanical behavior of mudstones, to be presented at 2021 Fall Meeting, AGU, New Orleans, Louisiana, December 13-17.

#### 2020

- [49] \*Mills, N.T., **Reece, J.S.**, and Tice, M.M. (2020), Clay minerals modulate early carbonate diagenesis (Poster), Gordon Research Conference, Galveston, Texas, January 12-17.

## 2019

- [48] Coggon, R.M., Reece, R.S., Christeson, G.L., Teagle, D.A.H., Sylvan, J.B., Reese, B.K., Leckie, R.M., Lowery, C., Hayman, N.W., **Reece, J.S.**, Jöns, S., Zachos, J.C., Briggs, B.R., Kirkpatrick, J.B., and Huber, M. (2019), The South Atlantic Transect – A Multidisciplinary Scientific Ocean Drilling Investigation, Abstract presented at 2019 Fall Meeting, AGU, San Francisco, California, December 12-16.
- [47] \*Mills, N.T., **Reece, J.S.**, and Tice, M.M. (2019), The acid-base properties of clay minerals as a potential buffer for sediment pore water pH and carbonate saturation during microbial iron reduction (Talk), Texas A&M University Department of Geology and Geophysics Student Research Symposium, College Station, Texas, March 21.

## 2018

- [46] \*Mills, N.T., **Reece, J.S.**, and Tice, M.M. (2018), The acid-base properties of clay minerals as a potential buffer for sediment pore water pH and carbonate saturation during microbial iron reduction (Talk), Abstract presented at 2018 Geological Society of America Annual Meeting, GSA, Indianapolis, Indiana, November 4-7.
- [45] \*Eakin, A.L., **Reece, J.S.**, and Milliken, K. (2018), Cement paragenesis as revealed by SEM cathodoluminescence imaging in the Permian Spraberry and Wolfcamp Formations (Poster), Texas A&M University Department of Geology and Geophysics Student Research Symposium, College Station, Texas, March 22.
- [44] \*Mills, N.T., **Reece, J.S.**, and Tice, M.M. (2018), The influence of clay minerals on the evolution of mudstone pore fluids during microbial iron reduction (Poster), Texas A&M University Department of Geology and Geophysics Student Research Symposium, College Station, Texas, March 22.
- [43] \*Mills, N.T. and **Reece, J.S.** (2018), How do microbes affect mudstone properties during diagenesis? (Poster), Gordon Research Conference, Galveston, Texas, January 21-26.

## 2017

- [42] \*Mills, N.T., **Reece, J.S.**, and Tice, M.M. (2017), Silica diagenesis in mudstones and the impact on consolidation and brittle deformation (Talk), Abstract presented at 2017 Geological Society of America Annual Meeting, GSA, Seattle, Washington, October 22-25.
- [41] \*Eakin, A.L. and **Reece, J.S.** (2017), Silica diagenesis in mudstones and the impact on consolidation and brittle deformation (Poster), Abstract presented at 2017 Annual Convention & Exhibition, AAPG, Houston, Texas, April 2-5.
- [40] \*Eakin, A.L. and **Reece, J.S.** (2017), Investigation of quartz and carbonate diagenesis in mudstones of the Permian Spraberry and Wolfcamp Formations, west Texas (Poster), Texas A&M University Department of Geology and Geophysics Student Research Symposium, College Station, Texas, March 30.
- [39] \*Mills, N.T., **Reece, J.S.**, and Tice, M.M. (2017), Evolution of mudstone porosity, permeability, and microstructure in the presence of microorganisms during vertical compression (Poster), Texas A&M University Department of Geology and Geophysics Student Research Symposium, College Station, Texas, March 30.
- [38] °Shackleton, T. and **Reece, J.S.** (2017), Microfossils in marine sediments: The influence on macro-scale mechanical behavior (Poster), Texas A&M University Department of Geology and Geophysics Student Research Symposium, College Station, Texas, March 30.

- [37] °Shackleton, T. and **Reece, J.S.** (2017), Microfossils in marine sediments: The influence on macro-scale mechanical behavior (Poster), Abstract presented at 2017 51<sup>st</sup> Annual Meeting, GSA South-Central Section, San Antonio, Texas, March 13-14.

## 2016

- [36] °Altobelli, M.A. and **Reece, J.S.** (2016), Effect of organic material on mechanical, hydrological, and microstructural properties of mudstones (Poster), Abstract MR51C-2722 presented at 2016 Fall Meeting, AGU, San Francisco, California, December 12-16.
- [35] \*Eakin, A.L. and **Reece, J.S.** (2016), Investigation of quartz diagenesis in mudstones of the Spraberry and Wolfcamp Formations (Oral), Abstract MR44A-04 presented at 2016 Fall Meeting, AGU, San Francisco, California, December 12-16.
- [34] \*Mills, N.T. and **Reece, J.S.** (2016), Evolution of mudstone porosity, permeability, and microstructure in the presence of microorganisms during vertical compression (Poster), Abstract MR51C-2731 presented at 2016 Fall Meeting, AGU, San Francisco, California, December 12-16.
- [33] **Reece, J.S.** and °Shackleton, T. (2016), The role of microfossils in the compression of marine sediments: Implications for submarine slope failure (Poster), Abstract T51B-2912 presented at 2016 Fall Meeting, AGU, San Francisco, California, December 12-16.
- [32] Wu, W., Gensterblum, Y., **Reece, J.S.** and Zoback, M.D. (2016), Permeability evolution with shearing of simulated faults in unconventional shale reservoirs (Poster), Abstract MR51C-2727 presented at 2016 Fall Meeting, AGU, San Francisco, California, December 12-16.
- [31] \*Mills, N.T. and **Reece, J.S.** (2016), How do microbes affect mudstone properties during diagenesis? (Poster), Texas A&M University Department of Geology and Geophysics Student Research Symposium, College Station, Texas, March 31.
- [30] °Altobelli, M. and **Reece, J.S.** (2016), Effect of organic material and heterogeneities on mechanical and flow behavior in mudstones (Poster), Texas A&M University Department of Geology and Geophysics Student Research Symposium, College Station, Texas, March 31.
- [29] °Goodspeed, J.C. and **Reece, J.S.** (2016), Comparison of three different particle size distribution analyzers (Poster), Texas A&M University Department of Geology and Geophysics Student Research Symposium, College Station, Texas, March 31.

## 2015

- [28] \*Eakin, A. and **Reece, J.S.** (2015), Effect of Diagenesis on Rock Consolidation Behavior: Testing Analytical Methods (Poster), Texas A&M University Berg-Hughes Symposium, College Station, Texas, October 16.
- [27] \*Mills, N.T. and **Reece, J.S.** (2015), Influence of microbial activity on mechanical and transport properties of mudstones during early diagenesis (Poster), Texas A&M University Berg-Hughes Symposium, College Station, Texas, October 16.
- [26] \*Eakin, A. and **Reece, J.S.** (2015), Effect of Diagenesis on Rock Consolidation Behavior (Poster), Texas A&M University Department of Geology and Geophysics Graduate Research Symposium, College Station, Texas, April 10.



## 2014

- [25] **Reece, J.S.**, Zoback, M.D., and Kohli, A.H. (2014), Effect of Shear Slip on Fault Permeability in Shale Reservoir Rocks, Abstract H13Q-03, presented at 2014 Fall Meeting, AGU, San Francisco, Calif., December 15-19.
- [24] Al Ismail, M.I., Hol, S., **Reece, J.S.**, and Zoback, M.D. (2014), The Effect of CO<sub>2</sub> Adsorption on Permeability Anisotropy in the Eagle Ford Shale, presented at the "The Challenges of Studying Low Permeability Materials" workshop, Cergy-Pontoise University, December 2.
- [23] Al Ismail, M.I., Hol, S., **Reece, J.S.**, and Zoback, M.D. (2014). The Effect of CO<sub>2</sub> Adsorption on Permeability Anisotropy in the Eagle Ford Shale (Poster), Conference Paper 1921520 presented at the Unconventional Resources Technology Conference, Denver, Colorado, August 25-27.

## 2012

- [22] **Reece, J.S.** and Flemings, P.B. (2012). Prediction of hydraulic diffusivity in marine mudstones through re-sedimentation experiments (Poster), Abstract MR33B-2463 presented at 2012 Fall Meeting, AGU, San Francisco, California, December 3-7.
- [21] Bhandari, A.R., **Reece, J.S.**, Cronin, M.B., Flemings, P.B., and Polito, P.J. (2012). Transient pressure-pulse decay permeability measurements in the Barnett shale, Abstract MR33B-2462 presented at 2012 Fall Meeting, AGU, San Francisco, California, December 3-7.
- [20] Flemings, P.B., **Reece, J.S.**, Adams, A.L., and Germaine, J.T. (2012). Making Mudstones: insights into material behavior through re-sedimentation experiments, Abstract MR23D-04 presented at 2012 Fall Meeting, AGU, San Francisco, California, December 3-7.
- [19] **Reece, J.S.**, Flemings, P.B., and the Expedition 322 Scientists (2012). Deformation and transport processes of re-sedimented mudstones in their initial pre-subduction conditions (Poster), GSA Penrose Conference on Deformation, fluid flow, and mass transfer in the forearc of convergent margins, Lucca, Italy, March 25-31.

## 2011

- [18] Betts, W.S., Flemings, P.B., **Schneider, J.**, (2011), Permeability and compressibility of re-sedimented Gulf of Mexico mudrock, Abstract MR43A-2133 presented at 2011 Fall Meeting, AGU, San Francisco, California, December 5-9.
- [17] **Schneider, J.**, Flemings, P.B., Day-Stirrat, R.J., Germaine, J.T. (2011). Insights into pore-scale controls on mudstone permeability and compressibility through re-sedimentation experiments (Oral), Geopressure 2011, An International Interdisciplinary Conference on Pressure Regimes and Their Prediction at all Scales, Galveston, TX, October 2-5.
- [16] **Schneider, J.**, Flemings, P.B., Day-Stirrat, R.J., Germaine, J.T. (2011). Insights into pore-scale controls on mudstone permeability and compressibility through re-sedimentation experiments (Oral), Abstract EGU2011-9052 presented at EGU General Assembly 2011, Vienna, Austria, April 3-8.
- [15] **Schneider, J.**, Flemings, P.B., Germaine, J.T., Compression and permeability behavior of re-sedimented mudstones from seaward of the Nankai Trough, IODP Expedition 322, Site C0011, presented at 2011 Expedition 319/322 2nd post-cruise meeting, Barcelona, Spain, September 26-28.
- [14] Flemings, P.B., Atkins, C., **Schneider, J.**, Particle size analysis IODP Expedition 319 Site C0009 (1521-1595 mbsf), presented at 2011 Expedition 319/322 2nd post-cruise meeting, Barcelona, Spain, September 26-28.

## 2010

- [13] **Schneider, J.**, Flemings, P.B., Day-Stirrat, R.J., Germaine, J.T. (2010). Experimentally derived model to predict permeability behavior of mudstones (Poster), Abstract MR11B-1880 presented at 2010 Fall Meeting, AGU, San Francisco, CA, December 13-17.
- [12] **Schneider, J.**, Peets, C.S., Flemings, P.B., Day-Stirrat, R.J., Germaine, J.T. (2010). Experimentally derived mechanical and flow properties of mudstones (Poster), Extended Abstract for the EAGE Shale Workshop - Shale – Resource and Challenge, 3 pp., Nice, France, April 26-28.

## 2009

- [11] **Schneider, J.**, Peets, C.S., Flemings, P.B., Day-Stirrat, R.J., Germaine, J.T. (2009). Experimentally derived mechanical and flow properties of fine-grained soil mixtures (Poster), Eos Trans. AGU, 90(52), Fall Meet. Suppl., Abstract H23F-1024, San Francisco, CA, December 14-18.
- [10] Day-Stirrat, R.J., Flemings, P.B., Strong, H.E., **Schneider, J.**, Sawyer, D.E., Schleicher, A.M. (2009). The fabric of Mass Transport Deposits in the Ursa Basin, Gulf of Mexico, Eos Trans. AGU, 90(52), Fall Meet. Suppl., Abstract T53C-1607, San Francisco, CA, December 14-18.
- [9] Strong, H.E., Flemings, P.B., Sawyer, D.E., Germaine, J.T., Day-Stirrat, R., **Schneider, J.**, (2009). Consolidation characteristics of mass transport deposits in Ursa Basin, Northern Gulf of Mexico, American Association of Petroleum Geologists National Meeting, Denver Colorado.

## 2008

- [8] **Schneider, J.**, Flemings, P.B., Dugan, B., Long, H., Germaine, J.T., Saffer, D.M. (2008). Porosity vs. Permeability Behavior of Shallow Mudstones in the Ursa Basin, Deepwater Gulf of Mexico (Poster), Eos Trans. AGU, 89(53), Fall Meet. Suppl., Abstract OS11A-1105, San Francisco, CA, December 15-19.
- [7] Flemings, P.B., You, Y., Sawyer, D., **Schneider, J.** (2008). Forward modeling pore pressure evolution in the Ursa Basin, offshore Louisiana, Gulf of Mexico, Eos Trans. AGU, 89(53), Fall Meet. Suppl., Abstract OS11A-1104, San Francisco, CA, December 15-19.
- [6] Flemings, P.B., Dugan, B.E., Sawyer, D.E., **Schneider, J.**, Strong, H.S. (2008). Pore pressure penetrometers document high overpressure near the seafloor where multiple submarine landslides have occurred on the continental slope, offshore Louisiana, Gulf of Mexico, 33rd International Geological Congress, Oslo, Norway.
- [5] **Schneider, J.**, Flemings, P.B. (2008). Overpressure and compaction of porous marine sediments (Poster, Oral), Marie Curie Summer School, Knowledge Based Materials, Hydrous and porous systems, Trèst, Czech Republic, August 19-29.
- [4] Flemings, P.B., Long, H., **Schneider, J.**, Germaine, J.T., Dugan, B. (2008). Compressibility and Permeability Behavior of Shales at Low Effective Stresses, European Association of Geoscientists & Engineers Research Workshop, ‘Compacting and Stressing Out Shales: from Geological to Production Timescales’, Berlin, Germany.
- [3] **Schneider, J.**, Flemings, P.B., Long, H., Dugan, B., Germaine, J.T., Saffer, D.M., and IODP Expedition 308 Shipboard Scientific Party (2008). Pore pressure prediction near the seafloor in the Brazos-Trinity Basin, Gulf of Mexico (Oral), International Conference “Overpressure 2008: Present and Future Challenges – A Research Conference”, Durham, England, April 6-9.

## 2005

- [2] **Schneider, J.**, Moerz, T., Bartetzko, A., Iturrino, G.J., Edeskaer, T.M., Flemings, P.B., Behrmann, J.H., John, C.M., and IODP Expedition 308 Shipboard Scientific Party (2005). Examples of mass wasting and

hemipelagic sedimentation of Brazos-Trinity Basin #4 and Ursa Basin (Poster), *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract OS21A-1516, San Francisco, CA, December 5-9.

- [1] **Schneider, J.**, Moerz, T., Bartetzko, A., Iturrino, G.J., Edeskaer, T.M., Flemings, P.B., Behrmann, J.H., John, C.M., and IODP Expedition 308 Shipboard Scientific Party (2005). Examples of mass wasting and hemipelagic sedimentation of Brazos-Trinity Basin IV and Ursa Basin, Northern Gulf of Mexico, IODP Expedition 308 (Poster), German IODP Meeting, Greifswald, Germany, March 27-29.

### BOOK CHAPTERS

- [1] Agarwal, A., Aird, T., Benson, S., Cameron, D., Druhan, J., Harris, J., Maher, K., **Reece, J.**, Vialle, S., Zahasky, C., Zaranonello, S., Zoback, M. (2015). Chapter 42: Overview of assessment of leakage detection and intervention scenarios for CO<sub>2</sub> sequestration, *In: Gerdes, K.F. (editor), Carbon Dioxide Capture for Storage in Deep Geological Formations*, Volume 4, CPL Press and BPCNAI, 964 pp.

### NON PEER-REVIEWED REPORTS

- [6] Benson, S., Harris, J., Maher, K., Zoback, M., Agarwal, A., Aird, T., Alshuhail, A., Druhan, J., **Reece, J.**, Strandli, C., Vialle, S., Zahasky, C. (2013). Assessment of leakage detection and intervention scenarios for CO<sub>2</sub> sequestration. CCP3 Contingency Planning: White Paper on existing literature, Stanford Center for Carbon Storage, Stanford University.
- [5] Aliyeva, S., Allan, A.M., Lopéz, H.S.A., Brown, J., Dahl, J.E.P., Das, I., Druhan, J., Dutta, P., Dvorkin, J., Ebert, Y., El Husseiny, A., Grana, D., Grombacher, D., Heller, R., Hol, S., Kanitpanyacharoen, W., Kobayashi, Y., Kohli, A., Konishi, C., Lin, Y., Maher, K., Mavko, G., Mukerji, T., Rassouli, F., **Reece, J.S.**, Saxena, N., Sen, A., Skurtveit, E., Tew, A., Vaorio, T., Vialle, S., Walsh, R., Walters, R., Xia, Y., Yang, A., and Zoback, M.D. (2013), Stanford Rock Physics & Borehole Geophysics Project, Vol. 133, Stanford University.
- [4] Flemings, P.B., Germaine, J.T., Adams, A., Alberty, M., Betts, W., Bhandari, A.R., Casey, B., Coleff, D., Deirieh, A., Fahy, B., Gao, B., Hermanrud, C., Hurd, G., Luo, G., Marjanovic, J., Merrell, M., Meyer, D., Nikolinakou, M., **Reece, J.S.**, and You, Y. (2013). UT GeoFluids annual report to Industrial Associates for 2013: slide set 4, annual report prepared for Anadarko, BHP, BP, Chevron, ConocoPhillips, ExxonMobil, Hess Corp, Schlumberger, Shell, Statoil, Total, The University of Texas at Austin, Bureau of Economic Geology.
- [3] Flemings, P.B., Germaine, J.T., Adams, A., Betts, W., Casey, B., Cronin, M., Day-Stirrat, R.J., Gao, B., Greeley, D., Horan, A., Katahara, K., Luo, G., Majanovic, J., Merrell, M., Nikolinakou, M., Polito, P., **Schneider, J.**, Smith, A., You, Y. (2012). UT GeoFluids annual report to Industrial Associates for 2012: slide set 3, The University of Texas at Austin, Bureau of Economic Geology, annual report prepared for Anadarko, BHP, BP, Chevron, ConocoPhillips, ExxonMobil, Hess Corp, Schlumberger, Shell, Statoil, Total (23 presentations), Online
- [2] Flemings, P.B., Germaine, J.T., Adams, A., Betts, W., Braunscheidel, M., Casey, B., Day-Stirrat, R.J., Gao, B., Heppard, P., Horan, A., Luo, G., Majanovic, J., Merrell, M., Nikolinakou, M., Sawyer, D.E., Sayers, C., **Schneider, J.**, Smith, A., You, Y. (2011). UT GeoFluids annual report to Industrial Associates for 2011: slide set 2, The University of Texas at Austin, Bureau of Economic Geology, annual report prepared for Anadarko, BHP, BP, Chevron, ConocoPhillips, ExxonMobil, Hess Corp, Schlumberger, Shell, Statoil, Total (26 presentations), Online

- [1] Flemings, P.B., Germaine, J.T., Basin, T., Braunscheidel, M., Darnell, K., Day-Stirrat, R.J., Hudec, M.R., Luo, G., Nikolinakou, M., Sawyer, D.E., **Schneider, J.**, You, Y. (2010). UT GeoFluids annual report to Industrial Associates for 2010: slide set 1, The University of Texas at Austin, Bureau of Economic Geology, annual report prepared for Anadarko, BHP, BP, Chevron, ConocoPhillips, Devon, ExxonMobil, Hess Corp, Schlumberger, Shell (22 presentations), Online

## FIELD ACTIVITIES

06/2022 – 08/2022 IODP Exp. 393, *R/V JOIDES Resolution*, South Atlantic Ocean, co-chief scientist  
 04/2016 – 04/2016 GEOL 609 *Field Geology*, Andros Island, Bahamas, assisted faculty  
 05/2005 – 07/2005 IODP Exp. 308, *R/V JOIDES Resolution*, Gulf of Mexico, sailed as sedimentologist  
 08/2004 – 10/2004 ARK XX/3, *R/V Polarstern*, Svalbard, Arctic Ocean, student research assistant  
 08/2002 – 09/2002 M54/2, *R/V Meteor*, Costa Rica, Nicaragua, student research assistant

## COLLABORATORS

Christina Belanger (TAMU); Torsten Bickert (Marum, University of Bremen, Germany); Sebastian Cardona (TAMU); Brendan Casey (Exponent, Inc.); Hugh Daigle (UT Austin); Ruarri Day-Stirrat (Shell Oil Company, USA); Yves Gensterblum (Academy RWTH Aachen, Germany); John Germaine (Tufts University); Ursula Hammes (Hammes Energy & Consultants); Ronny Hofmann (Shell Oil Company, USA); Matt Hornbach (Southern Methodist University); Derek Sawyer (Ohio State University); Jason Sylvan (TAMU); Michael Tice (TAMU); Morelia Urlaub (GEOMAR, Germany); Wei Wu (Nanyang Technological University, Singapore); Yuankun Xu (Southern Methodist University); Mark Zoback (Stanford University)

## TEACHING

### Texas A&M University

Professor: GEOL 489, Geofluids, undergraduate 2021 - present

Spring 2021 (offered as stacked course), 3 students, evaluation: N/A

*This course provides the technical foundation and physical insight to explore quantitatively how fluids drive fundamental geologic processes in sedimentary basins. Students characterize stresses and pressures in sedimentary basins, learn about different compression models, and explore the origin of overpressure and generation of submarine landslides. Problems addressed include how sedimentation generates overpressure, how hydrocarbons are trapped in the subsurface, how mud volcanoes form, and how submarine landslides are generated. This is a new course at the undergraduate level and offered as a stacked course for the first time in Spring 2021. Reece adapted the graduate version of this course (which she developed) by modifying the deliverables, learning outcomes, and grading policy accordingly.*

Professor: GEOL 210, Geological Communication, undergraduate 2019 - present

Spring 2022, 18 students, evaluation: N/A

Spring 2020, 24 students, evaluation: 4.61/5

Fall 2019, 26 students, evaluation: 4.25/5

*This course is required for geology majors. It serves an introduction to communicating as a scientist, particularly in geological settings. Students learn how to use precise language, illuminating graphs, and correct mathematical and chemical symbols to describe geological observations and concepts in writing.*

*The course also includes basic statistics to describe geological data and uncertainty and recognizing scientific ethical dilemmas and plagiarism. It commonly has undergraduate students from varying levels. This course has been previously taught, but Reece has revised course content including lectures, in-class assignments, take-home assignments, and classroom activities.*

Professor: GEOL 306, Introduction to Sedimentology and Stratigraphy, undergraduate 2015 - present

Fall 2021, 57 students, evaluation: N/A

Fall 2020 (co-taught with Dr. Michael Pope), 38 students, evaluation: N/A

Fall 2019 (co-taught with Dr. Michael Pope), 64 students, evaluation: 4.87/5

Spring 2019 (co-taught with Dr. Michael Pope), 25 students, evaluation: 4.62/5

Fall 2018, 64 students, evaluation: 4.54/5

Fall 2017, 59 students, evaluation: 4.74/5

Fall 2016, 90 students, evaluation: 4.53/5

Fall 2015, 63 students, evaluation: 4.53/5

*This junior level course is required for geology majors. It serves an introduction to concepts in sedimentology and stratigraphy. The course emphasizes identification, classification, and quantitative interpretations of modern and ancient sedimentary systems and applied stratigraphic principles within the context of Earth's geologic and biologic history. This course has been previously taught, but Reece has revised course content including lectures, laboratories, exams, classroom activities and demonstrations.*

Professor: GEOL 311, Principles of Geological Writing (old curriculum), undergraduate 2014 - 2017

Spring 2017, 23 students, evaluation: 4.79/5

Fall 2014, 20 students, evaluation: 4.18/5

*This course was offered under the old curriculum and provides guidance and experience in communicating geology. Students develop scientific writing skills emphasizing clear, concise, precise, accurate, direct, and original communication as well as apply research tools important for comprehensive, precise, and accurate scientific writing. This course has been previously taught, but Reece has revised course content including lectures and assignments.*

Professor: GEOL 689, Geofluids, graduate 2017 - present

Spring 2021 (offered as stacked course), 8 students, evaluation: N/A

Spring 2019, 5 students, evaluation: 4.47/5

Spring 2017 (co-taught with Dr. Ursula Hammes, Adjunct Prof. at TAMU), 8 students, evaluation: 4.57/5

*This course provides the technical foundation and physical insight to explore quantitatively how fluids drive fundamental geologic processes in sedimentary basins. Students will characterize stresses and pressures in sedimentary basins, learn about different compression models, and explore the origin of overpressure and generation of submarine landslides. Problems addressed include how sedimentation generates overpressure, how hydrocarbons are trapped in the subsurface, how mud volcanoes form, and how submarine landslides are generated. This is a new course that Reece developed from scratch.*

Professor: GEOL 491, Undergraduate Geology Research Course, undergraduate 2015 - present

Spring 2022, 3 students

Spring 2019, 2 students

Fall 2021, 3 students	Summer 2018, 5 students
Summer 2021, 3 students	Fall 2017, 1 student
Spring 2021, 1 student	Spring 2017, 2 students
Fall 2020, 1 student	Fall 2016, 2 students
Spring 2020, 7 students	Spring 2016, 2 students
Fall 2019, 5 students	Spring 2015, 1 student
Summer 2019, 4 students	

*Reece has consistently integrated undergraduates into group research initiatives via this research course. Each student conducts a research project usually for at least a year. They help with the conception of initial science questions, perform laboratory experiments or literature reviews, and present results at a conference if possible and/or write a final report.*

Co-instructor: GEOL 689, Shale Reservoir Workshop: Analyzing Organic-Rich Mudrocks From Basin to Nanoscale, graduate Fall 2016 (lead instructor: Dr. Ursula Hammes, Adjunct Prof. at TAMU), 15 students, evaluation: 4.9/5	2016
Guest lecturer: GEOL 180, Introduction to Geology & Geophysics, undergraduate Fall 2021, Spring 2021, Fall 2020, Spring 2020, Fall 2019, Spring 2019	2019 - present
Guest lecturer: GEOS 101, Seminar for Transfer Students, undergraduate Spring 2017, Fall 2016, Fall 2015, Fall 2014	2014 - 2017
Guest lecturer: GEOS 101, Introduction to the Geosciences, undergraduate Fall 2015	2015
Substitute lecturer: GEOL 306, Introduction to Sedimentology and Stratigraphy, undergraduate Spring 2016 (2x substitute lectures)	2016

### **The University of Texas at Austin**

Teaching assistant: GEO 382D, Crustal Geofluids, graduate Spring 2011	2011
Graduate teaching assistant: GEO 330K, Energy Exploration, undergraduate Spring 2010	2010

### **STUDENT ADVISING**

(\*graduated, \*unofficial)

#### **Graduate Students**

<b>Name</b>	<b>Supervision</b>	<b>Institution</b>	<b>Degree</b>	<b>Role</b>	<b>Progress to Degree</b>
Timothy Carpp	08/21 – present	TAMU G&G	M.S.	Chair	
Mark Zablocki	07/21 – present	Tufts Univ.	Ph.D.	Member	
Kenton Fisher	12/20 – present	TAMU G&G	Ph.D.	Member	
Wyatt Scott	08/20 – present	TAMU G&G	Ph.D.	Chair	
Jessica McKay	05/20 – present	TAMU G&G	Ph.D.	Member	

Alexander Ferrell	08/19 – present	TAMU G&G	M.S.	Co-Chair	participated in IBA, exp. grad. in Summer 2022
Krishna M. Pradeep	03/17 – present	TAMU CVEN	M.S.	Member	
Autumn Eakin	08/14 – present	TAMU G&G	Ph.D.	Chair	full-time employee with Chevron, two unofficial maternity leaves at TAMU
*N. Tanner Mills	08/15 – 12/21	TAMU G&G	Ph.D.	Chair	graduated
C. Ryan Elmore	01/16 – 03/21	TAMU G&G	Ph.D.	Chair	two unofficial paternity leaves, left the program
*Clyde Findlay	01/18 – 12/20	TAMU G&G	Ph.D.	Member	
*Adnan Ashraf	03/17 – 06/18	TAMU CVEN	M.S.	Member	
*Nfn Ricardo	09/17 – 05/18	TAMU PETE	M.S.	Member	
*Noah Miller	06/17 – 10/17	TAMU G&G	M.S.	Member	
*Joshua DeVore	08/15 – 05/16	Ohio State Univ.	M.S.	Member*	
*Dong Wang	12/14 – 12/16	TAMU CVEN	Ph.D.	Member	
*William Betts	03/13 – 05/14	UT Austin	M.S.	Member	

### Undergraduate Students

Name	Supervision	Project or Current Position (if graduated)
Braden Hoefler	06/21 – present	Lunar soil simulants with agglutinates
Ethan Levine	06/21 – present	Stream table setup and research
Mary Thompson	01/20 – present	Numerical modeling of submarine landslides in diatom-rich sediments
Sarah Leavengood	01/20 – 05/20	Stream table setup and research
Katelyn Fannin	01/20 – 05/20	Lunar soil simulants with agglutinates
*Charles Babendreier	01/20 – 05/20	The University of Texas at Austin (graduate studies)
*Lucky Marchelino	08/19 – 05/20	University of Houston (graduate studies)
*B. Gunner Boler	08/19 – 05/20	Louisiana State University (graduate studies)
*Jesse Yeon	08/19 – 05/20	Texas A&M University (graduate studies)
*Schuyler Hoff	10/18 – 12/19	self-employed
*Michael Martinez	01/19 – 12/19	University of Houston (graduate studies)
*Wyatt Scott	01/19 – 12/19	Texas A&M University (graduate studies)
*Dennis Mmasa	01/17 – 12/17	University of Arkansas (graduate studies)
*Melanie Bowen	08/16 – 12/17	ExxonMobil
*Travis Shackleton	01/16 – 08/16	Schlumberger
*Melissa Altobelli	01/16 – 12/16	ExxonMobil
*Clayton Goodspeed	08/15 – 05/16	Halliburton

### AWARDS AND HONORS OF SUPERVISED STUDENTS

#### Internal (TAMU)

2021	Best student paper award, TAMU Geol. & Geophys.	Tanner Mills
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2021	Lechner scholarship for outstanding academic achievement	Wyatt Scott
2018	1 <sup>st</sup> place, PhD Research Poster, TAMU Geol. & Geophys. Research Symposium	Autumn Eakin
2017	1 <sup>st</sup> place, PhD Completed Research, TAMU Geol. & Geophys. Research Symp.	Autumn Eakin
2016	2 <sup>nd</sup> place, PhD Anticipated Research, TAMU Geol. & Geophys. Research Symp.	Tanner Mills
2016	3 <sup>rd</sup> place, Undergraduate Research, TAMU Geol. & Geophys. Research Symp.	Melissa Altobelli
2015	1 <sup>st</sup> place, PhD Anticipated Research, TAMU Geol. & Geophys. Research Symp.	Autumn Eakin

### **External**

2018	GSA Travel Grant (\$125)	Tanner Mills
2017	GSA Travel Grant (\$125)	Tanner Mills
2017	AAPG Grants-in-Aid Award (\$3000)	Tanner Mills
2016 – 2017	Berg-Hughes Center Fellowship (BP)	Ryan Elmore
2015 – 2016	Berg-Hughes Center Fellowship (Saudi ARAMCO)	Tanner Mills

### **OTHER ACCOMPLISHMENTS OF SUPERVISED STUDENTS**

2020	Secured academic job at Broward College (FL) as part of my service to AFF	Kieron Prince
2020	Summer Internship with EOG Resources	Wyatt Scott
2019	Geology & Geophysics Outstanding Senior Award	Michael Martinez
2019	Geology & Geophysics Outstanding Senior Award	Wyatt Scott
2018	Summer Internship with ConocoPhillips	Tanner Mills
2018	Spring Internship with ExxonMobil	Melanie Bowen
2017	Internship with ExxonMobil	Melissa Altobelli

### **POSTDOCTORAL AND VISITING SCHOLAR ADVISING**

<b>Name</b>	<b>Position</b>	<b>Supervision</b>
Dr. Sebastian Cardona	TAMU GFF Postdoctoral Research Associate	09/21 – present
Dr. Ursula Hammes	Michel T. Halbouty Visiting Professor	09/16 – 05/17

### **PROFESSIONAL SERVICE**

#### **Internal Service (TAMU)**

#### **Department of Geology and Geophysics**

06/2021 – 12/2021	Instructional Assistant Professor Search Committee
05/2021 – present	Tenure-Track Faculty Search Committee (liaison)
01/2020 – present	Department Faculty & Staff Awards Committee
08/2019 – 11/2019	Berg Hughes Scholarship Committee
01/2018 – 02/2020	Graduate Student Awards Committee
09/2018 – 08/2019	Instructional Assistant Professor Search Committee
01/2018 – 05/2018	Executive Committee
03/2017 – 12/2017	Graduate Admissions Task Force for “Making the Graduate Program Better”
02/2017 – 04/2017	Unconventional Resources Search Committee



- 03/2016 – 05/2017 Berg-Hughes Center Fellowship Committee  
 09/2015 – 12/2017 Graduate Admissions Committee  
 09/2016 – 05/2017 Hosting Halbouty Visiting Chair Dr. Ursula Hammes (Hammes Energy & Consultants)

### **College of Geosciences**

- 12/2019 – present College Distinguished Achievement Awards Committee  
 01/2019 – 11/2019 Strategic Planning Steering Committee  
 10/2014 – 02/2015 Onboarding & Mentoring Taskforce  
 10/2015 – 01/2016 New Geosciences Building – Scanning and Optical Microscopy Working Group

### **Texas A&M University**

- 10/2018 – 10/2019 Official mentor for Kieron Prince as part of the Academy for Future Faculty (AFF) program  
*The Academy for Future Faculty is a program at TAMU that is part of the Center for the Integration of Research, Teaching, and Learning (CIRTL), an National Science Foundation Center for Learning and Teaching in higher education. The program's goals are to provide professional development for graduate students and post-docs in preparation for a career in higher education. Reece acted as official mentor for Prince through this program. She provided feedback on curriculum vitae, syllabus, teaching statement, research statement, and diversity statement.*

## **External Service**

### **Scientific Service**

- 09/2018 – 05/2019 Ocean Discovery Lecture Series, International Ocean Discovery Program (IODP)  
*The Ocean Discovery Lecture Series (formerly the Distinguished Lecturer Series) is a renowned lecture series, in which about six distinguished lecturers per academic year speak at many institutions (~6-9) about their scientific results and discoveries related to IODP. The lecturer also acts as an advocate for IODP and teaches community colleges, museums, etc. about IODP. Reece visited 9 institutions over two semesters including a Museum of Arts and Sciences and a Community College.*
- 10/2014 – 09/2017 Science Evaluation Panel (SEP), International Ocean Discovery Program (IODP)  
*SEP is an advisory body of the JOIDES Resolution Facility Board (JRFB) and primarily reviews drillings proposals to use the IODP drilling platforms. SEP meets twice a year. Reece reviewed up to 18 proposals per meeting and was responsible for the oral presentation or written report of one or two proposals per meeting.*

### **Session Convener**

- 12/2017 Co-Convener (AGU Fall Meeting 2017)

### **Judge**

- 03/2018 Annual Geology & Geophysics Research Symposium, TAMU  
 03/2017 Annual Geology & Geophysics Research Symposium, TAMU

12/2016 Outstanding Student Paper Award (AGU Fall Meeting)  
12/2014 Outstanding Student Paper Award (AGU Fall Meeting)  
12/2012 Outstanding Student Paper Award (AGU Fall Meeting)  
02/2012 Annual Jackson School Research Symposium, UT Austin

### **Organizer**

01/2013 – 07/2013 Co-organizer of School of Earth Sciences Postdoc Seminar Series, Stanford University

### **Referee**

#### **Peer reviewed journals:**

Advances in Water Resources, American Association of Petroleum Geologists (AAPG), American Rock Mechanics Association (ARMA), Earth and Planetary Science Letters (EPSL), Geochemistry, Geophysics, Geosystems (G-cubed), Geology, Geophysical Research Letters (GRL), International Ocean Discovery Program (IODP), Journal of Geophysical Research – Solid Earth (JGR), Marine and Petroleum Geology (MPG), Transport in Porous Media, Water Resources Research

#### **Funding agencies:**

American Chemical Society (ACS), Texas Academy of Science (TAS)

### **INVITED TALKS**

- 2021 The impact of grain size on the hydromechanical behavior of mudstones, Louisiana State University, Department of Geology and Geophysics, November 5, 2021.
- 2021 The impact of grain size on the hydromechanical behavior of mudstones, Oklahoma State University, Boone Pickens School of Geology, April 1, 2021 (online).
- 2019 Mud and Bugs Under Stress: Compression of Marine Sediments Beneath the Seafloor, Central Washington University, Ellensburg, Washington, May 3, 2019 (as part of IODP Distinguished Lecture Series)
- 2019 Mud and Bugs Under Stress: Compression of Marine Sediments Beneath the Seafloor, Southwest Oregon Community College, Coos Bay, Oregon, April 13, 2019 (as part of IODP Distinguished Lecture Series)
- 2019 Mud and Bugs Under Stress: Compression of Marine Sediments Beneath the Seafloor, Montana State University, Billings, Montana, March 28, 2019 (as part of IODP Distinguished Lecture Series)
- 2019 Mud and Bugs Under Stress: Compression of Marine Sediments Beneath the Seafloor, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, February 21, 2019 (as part of IODP Distinguished Lecture Series)
- 2018 Mud and Bugs Under Stress: Compression of Marine Sediments Beneath the Seafloor, Rowan University, Glassboro, New Jersey, November 15, 2018 (as part of IODP Distinguished Lecture Series)
- 2018 Mud and Bugs Under Stress: Compression of Marine Sediments Beneath the Seafloor, Museum of Arts and Sciences, Macon, Georgia, October 2, 2018 (as part of IODP Distinguished Lecture Series)
- 2018 Mud and Bugs Under Stress: Compression of Marine Sediments Beneath the Seafloor, University of Miami – Rosenstiel School of Marine and Atmospheric Science, Miami, Florida, October 1, 2018 (as part of IODP Distinguished Lecture Series)

- 2018 Mud and Bugs Under Stress: Compression of Marine Sediments Beneath the Seafloor, Mississippi State University, Starkville, Mississippi, September 6, 2018 (as part of IODP Distinguished Lecture Series)
- 2018 Mud and Bugs Under Stress: Compression of Marine Sediments Beneath the Seafloor, University of Louisiana at Lafayette, Lafayette, Louisiana, September 4, 2018 (as part of IODP Distinguished Lecture Series)
- 2017 Controls on hydromechanical properties of mudstones through scientific ocean drilling, University of Texas San Antonio, Department of Geological Sciences Seminar, Fall 2017
- 2015 Compressing natural mudstones: Controls on mechanical and fluid-flow properties, University of Georgia, Department of Geology Seminar, Fall 2015
- 2013 Multi-scale flow behavior in mudrocks, The Ohio State University, School of Earth Sciences seminar, Spring 2013
- 2013 Multi-scale flow behavior in mudrocks, Texas A&M University, Department of Geology and Geophysics, Spring 2013
- 2012 Impact of silt fraction on compressibility, permeability, and microstructure of natural mudstones, Stanford University, Department of Geophysics seminar, Fall 2012

### **PARTICIPATION IN WORKSHOPS**

- 2021 Invited faculty member on panel about graduate school applications, organized by TAMU SEG student chapter
- 2021 Scientific Ocean Drilling IMPACT Mini-Workshop: Preparing the Next Generation, IODP *Mini-workshop to discuss the future of ocean discovery, scientific outreach, and preparing the next generation to participate in scientific ocean drilling. This workshop is in preparation for the in-person workshop (tentatively scheduled for Spring 2022).*
- 2021 Addressing Equity and Inclusion in Mentoring, TAMU *TAMU workshop developed by the Center for the Improvement of Mentored Experiences in Research (CIMER) as part of the Summer Faculty Mentoring Academy.*
- 2021 9<sup>th</sup> International Symposium on Subaqueous Mass Movements and Their Consequences (ISSMMTC) (online) *Due to the pandemic the conference, originally scheduled for summer 2020 in Dublin, Ireland, was delivered online. My students Wyatt Scott and Mary Thompson and I participated. The symposium was extremely relevant to my research funded by the NSF CAREER grant.*
- 2021 Maintaining Effective Communication in Mentoring, TAMU *TAMU workshop developed by the Center for the Improvement of Mentored Experiences in Research (CIMER) as part of the Summer Faculty Mentoring Academy.*
- 2020 Invited panelist on NSF CAREER Workshop, TAMU *TAMU panel organized by Research Development Services to help early career scientists become more competitive as NSF CAREER and other Young Investigator Program grant applicants.*
- 2020 STRIDE Faculty Search Committee Training Workshop, TAMU *Interactive workshop providing strategies and tactics to recruit diverse faculty and minimize implicit bias.*
- 2020 Invited panelist on NSF CAREER Workshop for Tenure-track Assistant Professors in the College of Agriculture and Life Sciences

- TAMU panel organized by the College of Agriculture and Life Sciences to help early career scientists in the departments of that college become more competitive as NSF CAREER and other Young Investigator Program grant applicants.*
- 2018 Leadership Development Program with Dr. Natemeyer, TAMU  
*TAMU workshop organized by and for the College of Geosciences to provide strategies to be an effective and well-communicating leader.*
- 2017 International Ocean Discovery Program (IODP) proposal development workshop on Submarine Landslides, Southern Methodist University, Dallas, TX  
*IODP workshops are used to develop new drilling proposals. The drilling proposal “The Role of Pressure and Temperature in Retrogressive Landslides in the Western North Atlantic (930-Full)” was developed as a result of this workshop.*
- 2017 NSF Career and Other Young Investigator Programs Seminar, TAMU  
*TAMU seminar organized by Research Development Services to help early career scientists become more competitive as NSF CAREER and other Young Investigator Program grant applicants.*
- 2016 eCampus Assignments and Assessments, TAMU Instructional Technology Services  
*Informal and interactive workshop offered by the TAMU Instructional Technology Services focused on creating assignments and assessments in eCampus.*
- 2016 Writing Good Exam Questions, TAMU Center for Teaching Excellence  
*Informal and interactive workshop offered by the Center for Teaching Excellence focused on writing good exam questions.*
- 2015 Teaching Methods, TAMU Center for Teaching Excellence  
*Informal and interactive workshop offered by the Center for Teaching Excellence focused on teaching methods.*
- 2015 Lecturing Well, TAMU Center for Teaching Excellence  
*Informal and interactive workshop offered by the Center for Teaching Excellence focused on lecturing well.*
- 2014 ADVANCE Roadmap for a Successful Academic Career Workshop, TAMU  
*Interactive and dynamic workshop organized by the TAMU Advance Center for Women Faculty covering topics such as academic portfolios, teaching, research, service, work-life balance, and mentoring.*
- 2013 IODP Workshop on Multidisciplinary Transect Drilling During Transits, TAMU  
*NSF workshop focused on multi and interdisciplinary transect drilling proposals to exploit the likely transits of the drillship between or within large basins. The drilling proposal “Full proposal for multidisciplinary IODP investigations along a crustal flow-line across the western flank of the southern Mid-Atlantic Ridge: The South Atlantic Transect (3 submissions: 853 Full, Full-2, Full-2 Add.)”, which led to two scheduled expeditions, is a result of this workshop.*
- 2012 Building U.S. Strategies for 2013-2023 Scientific Ocean Drilling, Denver, Colorado  
*NSF workshop for scientific drilling community to discuss the future scientific goals of the IODP program and to prioritize fourteen scientific challenges outlined in the 2013-2023 Science Plan and to identify new approaches for more efficient planning of drilling expeditions.*
- 2009 Seabed Sediment Pore Pressure: Genesis, Measurement and Implications for Design/Analysis, Oslo, Norway
- 2008 Marie Curie Summer School on Aqueous and Porous Materials, Trèst, Czech Republic
- 2008 TEMIS 2D/3D (Basin Modeling), Beicip-Franlab, Houston, TX

2007 Soil Mechanics, Shell E&P, Houston, TX

### **OUTREACH ACTIVITIES**

2018 „Soda can“ activity at College’s GeoX event (June 14<sup>th</sup>)  
2018 „Soda can“ activity as outreach activity with Bryan High School students (April 27<sup>th</sup>)  
2017 Outreach activity at the Brazos Valley Children’s Museum (Oct. 7<sup>th</sup>)  
2017 Outreach activity at College’s GeoX event (June. 9<sup>th</sup>)  
2017 Outreach activity along with College event hosting Coram Deo Academy (Feb. 3<sup>rd</sup>)

### **PROFESSIONAL AFFILIATIONS**

2014 – present Geological Society of America (GSA)  
2013 – 2014 American Rock Mechanics Association (ARMA)  
2011 – 2012 European Geosciences Union (EGU)  
2010 – 2011 European Association of Geoscientists and Engineers (EAGE)  
2005 – present American Geophysical Union (AGU)