JOURNALISM

The Department of Journalism is founded on the principle that a well-informed and engaged public is essential to democracy—perhaps more so now, at a time of dizzying change, than it has ever been—and that, in the face of this change, journalism retains a unique role in contributing to civic life and to the quality of public discourse.

We put this principle to work by helping students become constructive participants in an ever-evolving global media landscape, where distinctions between producers and consumers of content have blurred. More specifically, we prepare them, at both the undergraduate and graduate levels, for careers in journalism and other fields of public communication. We train students to gather information from a diversity of sources, to analyze it critically, and to report what is significant, through stories and other media forms across multiple media platforms. We encourage ethical awareness so that students will think independently, being prepared to reflect on and to help shape media practices and norms rather than take them at face value.

We believe in the integration of classroom instruction with practical experience. Many of our students work for, and manage, campus online news and entertainment sites, television programs and a radio station. They intern at broadcast stations, newspapers, magazines, websites and social media companies. Lastly, as a faculty, and with the help of colleagues elsewhere in our College who are working on new and innovative forms of human communication, we are committed to improving journalism through pioneering research and creative work.

Course code for this program is JRNL.

Bachelor's Degree

- Journalism - Bachelor of Arts (BA) (catalog.colorado.edu/undergraduate/colleges-schools/communication-information/programs-study/journalism/journalism-bachelor-arts-ba/)

Minor

- Journalism - Minor (catalog.colorado.edu/undergraduate/colleges-schools/communication-information/programs-study/journalism/journalism-minor/)

Faculty

While many faculty teach both undergraduate and graduate students, some instruct students at the undergraduate level only. For more information, contact the faculty member's home department.

Ackland, Len
Professor Emeritus

Brinkman, P. Delbert
Professor Emeritus

Browsh, Jared Bahir (https://experts.colorado.edu/display/fisid_163451/)
Instructor; PhD, University of Colorado Boulder

Chuang, Angie (https://experts.colorado.edu/display/fisid_159485/)
Associate Chair, Associate Professor; MA, Stanford University

Daugherty, Paul J. (https://experts.colorado.edu/display/fisid_128801/)
Senior Instructor; MA, University of Colorado Boulder

Ferrucci, Patrick (https://experts.colorado.edu/display/fisid_156307/)
Associate Chair, Assistant Professor; PhD, University of Missouri–Columbia

Jones, Stephen B. (https://experts.colorado.edu/display/fisid_101578/)
Assistant Dean, Senior Instructor Emeritus; PhD, University of Utah

Kaplan, Frank L.
Professor Emeritus

Kim, Hun Shik (https://experts.colorado.edu/display/fisid_141126/)
Associate Professor; PhD, University of Missouri–Columbia

Larson, Christine M. (https://experts.colorado.edu/display/fisid_159789/)
Assistant Professor; PhD, Stanford University

McDevitt, Michael Joseph (https://experts.colorado.edu/display/fisid_122949/)
Professor; PhD, Stanford University

Moritz, Marguerite J.
Professor Emerita

Plunkett, Chuck (https://experts.colorado.edu/display/fisid_164006/)
Instructor, Director; MFA, University of Pittsburgh

Rosner, Hillary (https://experts.colorado.edu/display/fisid_164326/)
Scholar in Residence; MFA, New York University

Ryan, Kathleen Marie (https://experts.colorado.edu/display/fisid_148481/)
Associate Professor; PhD, University of Oregon

Skewes, Elizabeth (https://experts.colorado.edu/display/fisid_122724/)
Chair, Associate Professor; PhD, Syracuse University

Taylor, Ross (https://experts.colorado.edu/display/fisid_156501/)
Assistant Professor; MS, Syracuse University

Voakes, Paul S.
Professor Emeritus

Whitt, Jan (https://experts.colorado.edu/display/fisid_103027/)
Professor Emeritus; PhD, University of Denver

Yulsman, Thomas (https://experts.colorado.edu/display/fisid_109386/)
Professor; MS, Columbia University

Courses

JRNL 1000 (3) Principles of Journalism and Networked Communication
Surveys the history, practices and responsibilities of journalism in a democracy. Examines ethics, best practices in institutional and network settings, reporting and writing, international news systems, personal branding, and strategies for creating and distributing content across media platforms. Promotes the highest professional values and encourages students to be leaders who recognize the possibilities of journalism in a democratic society.

Additional Information: Departmental Category: Core Curriculum and General Electives
 JRNL 1871 (1-3) Special Topics for First-Year Students
Special studies in media that are specific for first-year students. May be repeated for a maximum of three credit hours.
Repeattable: Repeattable for up to 3.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: Core Curriculum and General Electives

 JRNL 2000 (3) Writing for the Media
Introduces students to writing news for a range of news media platforms, including print / online, broadcast, social media and more, and teaches them how to use the appropriate grammar and style conventions for those media types. Also introduces students to various types of stories, from breaking news to features to profiles, and to basic reporting skills.
Students encouraged to take concurrently with JRNL 2001.
Requisites: Requires prerequisite of JRNL 1000 (minimum grade C-). Restricted to Journalism (JRNL) majors and minors only.

 JRNL 2001 (3) Fundamentals of Reporting Technologies
Develops news-gathering skills for work in news enterprises. Students learn skills for working with technologies used in news reporting and in storytelling for various media formats. Students are introduced to a range of technologies for recording, editing and producing. Students encouraged to take concurrently with JRNL 2000.
Requisites: Requires prerequisite of JRNL 1000 (minimum grade C-). Restricted to Journalism (JRNL) majors and minors only.

 JRNL 2014 (3) Race and Sports Journalism
Examines the intersection of sports journalism and race. It investigates the subject from two distinct but related perspectives. First, the class looks historically at how race has been covered in both journalism generally and sports journalism more specifically. Then it seeks to understand the effects of said coverage.

 JRNL 2301 (3) Journalism Ethics and History in Film
Examines how the depiction of journalists evolves over time through watching classic films. Also, the course studies how journalists depicted in film enact (or do not enact) ethical norms of the profession. Through the reading of cinema as text, and in conjunction with written texts, the class will discuss how these depictions in popular culture have, over time, impacted the way American society views the media.

 JRNL 2401 (3) Media Coverage of Diverse Populations
Explores the ways in which issues of gender, gender expression, sexual orientation, race, ethnicity and religion play out in news coverage and how news organizations approach coverage of marginalized groups in society.
Grading Basis: Letter Grade

 JRNL 3102 (3) Photojournalism I
Introduces the basic elements of visual communication. Covers the use of camera systems, digital imaging techniques and other aspects of photojournalism including law, ethics, history and critical decision-making.
Requisites: Requires a prerequisite course of JRNL 2001 (min grade C-). Restricted to Journalism (JRNL) majors or minors with a minimum of 57 credits only.

 JRNL 3112 (3) Concepts in Visual Culture
Studies the principles, theories and language of visual communication, emphasizing the evaluation and use of images in mass media. Designed to help students build theories and practices learned in previous classes and perfect their skills integrating words and pictures in communication to gain a greater appreciation of the visual world.
Requisites: Restricted to students with 57-180 credits (Juniors or Seniors).

 JRNL 3201 (3) Critical Perspectives on Journalism
Introduces students to the critical perspectives most often employed in qualitative analysis of journalistic texts and practice: Marxism, psychoanalytical criticism, semiology, sociological criticism, structuralism, etc. Emphasis is upon texts from contemporary print and broadcast media, although students may also explore documentary film and literary journalism.
Requisites: Restricted to students with 57-180 credits (Juniors or Seniors).

 JRNL 3202 (3) Covering Political Campaigns
Provides a blend of theoretical understanding and on the ground experience for students interested in learning about the forces that shape election coverage and the practicalities of reporting on the local and national races for public office.
Requisites: Requires prerequisite course of JRNL 2000 (minimum grade C-).

 JRNL 3211 (3) History of Broadcasting
Offers a broad overview of significant broadcast programs, the institutions and sociocultural and economic influences that have steered the course of radio, television and electronic media history in the United States.
Requisites: Restricted to students with 57-180 credits (Juniors or Seniors).

 JRNL 3221 (3) History of Digital Journalism
Explores the history, economics and traditions of digital technologies. Addresses the interaction between digital technologies, culture and economy with particular emphasis on the effects on digital journalism. Concludes with a focus on how these concepts are embraced by new journalism market models.
Requisites: Restricted to students with 57-180 credits (Juniors or Seniors).

 JRNL 3231 (3) History of Documentary Film
Explores the evolution of the documentary, both in feature films and on television, to understand how the genre offers both historical context and an understanding of the world in which we live.
Requisites: Restricted to students with 57-180 credits (Juniors or Seniors).

 JRNL 3241 (3) History of Journalism
Explores the foundations of journalism practice in a historical context. Students study the evolution of the news industry and analyze examples of contemporary broadcasting, photography, online and print media in light of the past.
Requisites: Restricted to students with 57-180 credits (Juniors or Seniors).

 JRNL 3401 (3) Sociology of News
Provides students with an introduction to the factors that shape news reporting and production, including gatekeeping, intermediary agenda setting, pack journalism, beat structures, news values and issues unique to the various platforms on which news is delivered.
Requisites: Restricted to students with 57-180 credits (Juniors or Seniors).
JRNL 3402 (3) Social Media Storytelling
Investigates the theory, ethics and best practices in storytelling across a variety of social media platforms including, but not limited to, Facebook, Twitter, Instagram, Snapchat, Medium and YouTube. Examines best practices for social media engagement. Students develop a story for multiple platforms and analyze the story performance on the sites and make recommendations for best practices.
Requisites: Requires prerequisite courses of JRNL 2000 and JRNL 2001 (all minimum grade C-). Restricted to JRNL majors and minors with 57-180 credits (Juniors or Seniors).

JRNL 3552 (3) Editing and Presentation
Explores copy editing, graphic principles and processes, new media technology.
Requisites: Requires prerequisite courses of JRNL 2000 and JRNL 2001 (all minimum grade C-). Restricted to JRNL majors and minors.
Additional Information: Departmental Category: Print Online Journalism

JRNL 3614 (3) Principles of Audio Production
Introduces audio production techniques using digital technologies. Students learn to apply fundamental principles to create professional radio and online programs including podcasting.
Requisites: Restricted to College of Media, Communication, and Information (CMCI) or Journalism (JRNL) minors with a minimum of 45 hours taken.
Additional Information: Departmental Category: Broadcast Journalism

JRNL 3644 (3) Digital Video Production I
This course teaches essential video production skills in both field and studio operation, camera and editing work, lighting, and multi-camera studio directing. Students will learn how to develop the narrative of a video, shoot quality footage for the story, and to apply best journalistic practices to positively impact society on multiple media platforms.
Requisites: Requires prerequisite courses of JRNL 2000 and JRNL 2001 (minimum grade C-). Restricted to JRNL majors or minors with a minimum of 45 completed hours.
Additional Information: Departmental Category: Broadcast Journalism

JRNL 3651 (3) Media Law and Ethics
Studies state and federal laws and court decisions that affect the media in order to develop knowledge of media rights and responsibilities and an understanding of the legal system. Provides students with an overview of the theories, ethics, codes, and analytical models that are used in journalism, and introduces students to a variety of ethical issues that can arise in journalism.
Requisites: Restricted to College of Media, Communication, and Information (CMCI) or Journalism (JRNL) minors with a minimum of 45 hours taken.

JRNL 3674 (3) Digital Video Production 2
This course teaches students how to do live video production work on streaming services, such as Livestream, and event productions. Students also cover the studio production side of NewsTeam, a live student-produced newscast. In addition, students will do field production projects to sharpen their video storytelling skills.
Requisites: Requires prerequisite course of JRNL 3644 (minimum grade C-).
Additional Information: Departmental Category: Broadcast Journalism

JRNL 3704 (3) Sports Writing
Prepares students for the world of sport journalism. Combines the skills of a hard news reporter, the perspective of an entertainment reporter and the persuasive abilities of an editorial writer.
Requisites: Restricted to students with 57-180 credits (Juniors or Seniors).

JRNL 3804 (3) Sports, Media and Society
Examines how sports, culture and especially the media, with a specific focus on journalism, all come together to influence society. Explores how sports communication affects, and is affected by, the issues and tension that touch society at large, such as law and politics, race, gender, sexuality and disability.
Equivalent - Duplicate Degree Credit Not Granted: MDST 3331
Requisites: Restricted to CMCI students with a minimum of 45 credits completed or non-CMCI students who have completed CMCI 2001 (minimum grade D-).

JRNL 4002 (3) Reporting 2
Assumes mastery of basic reporting and writing skills. Students produce more sophisticated stories on a variety of topics.
Requisites: Requires prerequisite courses of JRNL 2000 and JRNL 2001 (all minimum grade C-). Restricted to JRNL majors and minors.
Additional Information: Departmental Category: Print Online Journalism

JRNL 4004 (3) The Sports Media Industry
Examines the business practices and frameworks of the sports that journalists cover. Topics include market-driven journalism, the growth of sports coverage throughout in the 20th century, the technologies impacting sports business today, and the way money impacts coverage. Finally, the class explores the unique issues and challenges posed by the different financial structures of amateur and professional sports and how they influence sports coverage and reporting.
Requisites: Restricted to Journalism (JRNL) majors or Sports Journalism (SJR) minors only with 57-180 credits (Junior or Senior) only.

JRNL 4011 (3) Principles of Media Relations
Provides students with information about the ethics, history and practice of media relations (community affairs, community relations, customer relations, government relations, industry relations, internal communications, public relations, press agentry, public affairs, publicity, etc.). Introduces students from multiple academic disciplines to the genres of writing required for a media relations career.
Requisites: Restricted to students with a minimum of 45 credits completed.

JRNL 4102 (3) Photojournalism Portfolio
Advanced course intended to give students a forum in which technical skills will be brought to professional standards. Build a polished portfolio of work to present to editors and buyers.
Equivalent - Duplicate Degree Credit Not Granted: JRNL 5102
Requisites: Requires a prerequisite course of JRNL 3102 (minimum grade C-).
Additional Information: Departmental Category: Print Online Journalism

JRNL 4311 (3) Literary Journalism
Explores the telling of nonfiction stories through the techniques of fiction, through study of American literary journalists, from the New Journalism of the 1960s through current longform narrative multimedia. Students will read and analyze narrative nonfiction from several periods of American history in order to expand their own storytelling repertoire. The class will emphasize in-depth reporting for narrative, character and scene development, narrative arc and structure and the use of dialogue. They will also explore the particular ethical dilemmas faced by writers of creative nonfiction.
Equivalent - Duplicate Degree Credit Not Granted: JRNL 5311
Requisites: Requires prerequisite course of JRNL 2000 (minimum grade C-). Restricted to students with 57-180 credits (Juniors or Seniors).
JRNL 4344 (3) Video Documentary Production
Designed to give students the experience of researching, writing, shooting and editing their own documentaries.
Equivalent - Duplicate Degree Credit Not Granted: JRNL 5344
Requisites: Requires a prerequisite course of JRNL 3644 (minimum grade C-). Restricted to Journalism (JRNL) majors or minors.
Additional Information: Departmental Category: Broadcast Journalism

JRNL 4351 (3) Reporting Wars, Conflict and Peace
Explores how journalists report international breaking news with a focus on war, disaster and peace and how these news events affect peoples’ lives, governmental decisions and news media operations.
Requisites: Restricted to Journalism (JRNL) majors or minors with a minimum of 73 hours taken.
Additional Information: Departmental Category: Broadcast Journalism

JRNL 4354 (3) Video News Reporting
Focuses on writing and reporting compelling visual stories using mobile devices and video cameras. Students also learn storytelling techniques of backpack video journalism and reporting for broadcast television and online news.
Requisites: Requires a prerequisite course of JRNL 3644 (minimum grade C-). Restricted to Journalism (JRNL) majors or minors.
Additional Information: Departmental Category: Broadcast Journalism

JRNL 4401 (3) News and Public Perception
Considers the impact that news and journalistic practice have on the public through processes like agenda setting and second-level agenda setting, as well as issues such as news avoidance, the spiral of silence and political cynicism.
Requisites: Restricted to students with 57-180 credits (Juniors or Seniors).

JRNL 4402 (3) Journalism and Social Identity
Provides a discussion-based inquiry into the role of journalism and journalists in the representation of intersectional identities, focusing on race, gender, sexual expression and socioeconomic class in the United States. The study and practice of journalism in this course will address issues of trust, power, privilege and ethics inherent in reporting across difference.
Requisites: Requires prerequisite course of JRNL 2401 (minimum grade C). Restricted to students with 57-180 credits (Juniors or Seniors).

JRNL 4411 (3) International Media and Global Crises
Investigates how media organizations, audiences and other international organizations function during various global crises, such as national disasters, climate change and health epidemics, due to imbalanced distribution of wealth and resources, ethnic tensions and diplomatic failures.
Requisites: Restricted to students with 57-180 credits (Juniors or Seniors).

JRNL 4502 (3) Reporting 3
Involves writing news and features about actual events for publication under deadline pressure. Lab to be arranged.
Equivalent - Duplicate Degree Credit Not Granted: JRNL 5502
Requisites: Requires prerequisite courses of JRNL 3552 and JRNL 4002 (all minimum grade C). Restricted to JRNL majors and minors.
Additional Information: Departmental Category: Print Online Journalism

JRNL 4501 (3) Data Journalism
Instructs students in data-driven investigative reporting, from practice to ethical considerations. The class includes hands-on, in-depth instruction in gathering data, processing, presenting, and writing about data as a critical tool in journalistic storytelling. Students learn to read, interpret and critique data analysis for journalistic purposes.
Requisites: Requires prerequisite course of JRNL 2000 (minimum grade C-). Restricted to Journalism (JRNL) majors or minors with 57 or more credits completed.

JRNL 4562 (3) Digital Journalism
Builds upon digital production skills through the creation of multimedia project. Applies media theory to evaluate digital media content and explore how digital forms influence the news industry, politics, culture and society.
Equivalent - Duplicate Degree Credit Not Granted: JRNL 5562
Requisites: Requires prerequisite courses of JRNL 2000 and JRNL 2001 (minimum grade C-). Restricted to students with 57-180 credits (Juniors or Seniors).
Additional Information: Departmental Category: Print Online Journalism

JRNL 4572 (3) News Corps
CU News Corps provides students the opportunity to immerse themselves in a single project and then produce an in-depth text based or multimedia explanatory/investigative story for publication in professional media. Students spend several weeks studying the subject in question before reporting and producing their stories.
Requisites: Requires prerequisite course of JRNL 3674 or JRNL 4002 or JRNL 4354 or JRNL 3402 or JRNL 3552 or JRNL 4344 or JRNL 4602 or JRNL 4614 or JRNL 4802 or JRNL 4822 (minimum grade C-).
Grading Basis: Letter Grade

JRNL 4602 (3) Opinion Writing
Concentrates on several of the subjective areas of journalism. Emphasizes editorial and column writing, editorial pages and blogging.
Equivalent - Duplicate Degree Credit Not Granted: JRNL 5602
Requisites: Requires a prerequisite course of JRNL 2000 (minimum grade C-). Restricted to Journalism (JRNL) majors or minors with 57-180 credits (Juniors or Seniors).
Additional Information: Departmental Category: Print Online Journalism

JRNL 4614 (1-3) Advanced Audio Practices
Applies advanced skills in producing in-depth audio programming for radio stations in Colorado and for weekly discussion-critique sessions.
Repeatable: Repeatable for up to 6.00 total credit hours.
Requisites: Requires prerequisite course of JRNL 3614 (minimum grade C-). Restricted to CMCI majors or JRNL minors.
Additional Information: Departmental Category: Broadcast Journalism

JRNL 4624 (4) NewsTeam
Students participate in Newsteam Boulder, a program broadcast live over the Boulder cable television system.
Equivalent - Duplicate Degree Credit Not Granted: JRNL 5624
Requisites: Requires prerequisite course of JRNL 4354 (minimum grade C-).
Additional Information: Departmental Category: Broadcast Journalism
JRNL 4634 (1-3) Broadcast Projects
Covers interpretation, preparation, and/or reporting in programs for broadcast media. Students produce radio or television documentaries and informational/entertainment programs.
Equivalent - Duplicate Degree Credit Not Granted: JRNL 5634
Repeable: Repeatable for up to 6.00 total credit hours.
Requisites: Requires a prerequisite course of JRNL 3644 (minimum grade C). Restricted to JRNL majors or minors.
Additional Information: Departmental Category: Broadcast Journalism

JRNL 4651 (3) Advanced Media Ethics
Examines the responsibilities, the power and the problems of news media through the lens of ethical inquiry. Applies the philosophical and other perspectives from humanities and social sciences to consider ethical frameworks for guiding journalism in an era of technological disruption. Examines issues including privacy, conflicts of interest, undercover reporting, use of graphic images, interviewing trauma victims and other concerns in journalism through the lens of moral philosophy, best practices and codes of ethics.
Requisites: Requires prerequisite course of JRNL 3651 (minimum grade C). Restricted to students with 57-180 credits (Juniors or Seniors).

JRNL 4674 (3) Digital Video Production 3
Provides students with in-depth experience in directing and producing live video productions. Students learn how to create show rundowns and graphics.
Requisites: Requires a prerequisite course of JRNL 3674 (minimum grade C).
Additional Information: Departmental Category: Broadcast Journalism

JRNL 4684 (3) The Art of Visual Storytelling
Teaches students how to raise the production value of their work based on standards used by professionals. Students learn how lenses, lights and contrast can affect an image; how to assemble their shots with pacing and rhythm; how to apply color grading techniques to give video a cinematic look; and how to create motion graphics for titles and lower thirds.
Equivalent - Duplicate Degree Credit Not Granted: JRNL 5684
Requisites: Requires a prerequisite course of JRNL 3644 (minimum grade C). Restricted to JRNL majors or minors only.
Additional Information: Departmental Category: Broadcast Journalism

JRNL 4702 (3) Arts/Cultural Reporting and Criticism
Emphasizes composition of criticism for the performing arts and other areas of entertainment.
Equivalent - Duplicate Degree Credit Not Granted: JRNL 5702
Requisites: Requires a prerequisite course of JRNL 2000 (minimum grade C). Restricted to JRNL majors or minors with 57-180 credits (Juniors or Seniors).
Additional Information: Departmental Category: Broadcast Journalism

JRNL 4704 (3) Athletic Media Relations
Offers the opportunity to both observe and experience what is required to work in the world of intercollegiate athletic media relations and professional sports public relations. Covers how to write and how to budget the vital components of publications, media bias and crisis management.
Requisites: Requires prerequisite course of JRNL 3704 (minimum grade C).

JRNL 4714 (3) Sports Broadcasting
Teaches students how to do live sports television production. Students will learn the sports TV business from the ground up, and be responsible for participating in the broadcasting of three to four live sporting events.
Requisites: Restricted to students with 57-180 credits (Juniors or Seniors).

JRNL 4724 (3) Sports Announcing
Teaches students about sports talk and sports announcing, how to interview sports celebrities and the legal considerations and ethics of the business. Students will be doing play-by-play and color of live sporting events. Department consent required.
Requisites: Restricted to students with 57-180 credits (Juniors or Seniors).

JRNL 4802 (3) Feature Writing
Provides practice in writing freelance articles. Considers types, sources, methods, titles, illustrations, and freelance markets. Students submit work for publication.
Equivalent - Duplicate Degree Credit Not Granted: JRNL 5802
Requisites: Requires prerequisite courses of JRNL 2000 and JRNL 2001 (minimum grade C). Restricted to JRNL majors or minors with 57-180 credits (Juniors or Seniors).
Additional Information: Departmental Category: Print Online Journalism

JRNL 4822 (3) Reporting on the Environment
Involves reporting and writing about the environment by taking into account the scientific, technological, political, economic and cultural dimensions of environmental subjects.
Equivalent - Duplicate Degree Credit Not Granted: JRNL 5822
Requisites: Requires prerequisite courses of JRNL 2000 and JRNL 2001 (minimum grade C). Restricted to JRNL majors or minors with 57-180 credits (Juniors or Seniors).
Additional Information: Departmental Category: Print Online Journalism

JRNL 4841 (1-4) Undergraduate Independent Study
Repeatable: Repeatable for up to 6.00 total credit hours. Allows multiple enrollment in term.

JRNL 4874 (1-3) Special Topics
Special Topics
Repeatable: Repeatable for up to 15.00 total credit hours. Allows multiple enrollment in term.
Requisites: Restricted to JRNL majors or minors with 57-180 credits (Juniors or Seniors).
Additional Information: Departmental Category: Broadcast Journalism

JRNL 4931 (1-6) Internship
Internship
Repeatable: Repeatable for up to 6.00 total credit hours. Allows multiple enrollment in term.
Requisites: Requires prerequisite course of JRNL 3674 or JRNL 4002 or JRNL 4354 or JRNL 3402 or JRNL 3552 or JRNL 4344 or JRNL 4602 or JRNL 4614 or JRNL 4802 or JRNL 4822(minimum grade C).